December 2024 Sampling Event

PFAS Ongoing Monitoring Plan – HMAS Stirling

Department of Defence

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→ The Power of Commitment



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GHD Pty Ltd ABN 39 008 488 373
Contact: Tom Philips, Technical Director
999 Hay Street, Level 10
Perth, WA 6000, Australia
T +61 6222 8222 | **F** +61 6222 8555 | **E** permail@ghd.com | **www.ghd.com**

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List of acronyms

Acronym	Term
AFFF	Aqueous film-forming foam
AHD	Australian Height Datum
AS/NZS	Australian Standards/ New Zealand Standards
CoC	Chain of Custody
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
Defence	Department of Defence
DO	Dissolved oxygen
DQIs	Data Quality Indicators
DWER	Department of Water and Environmental Regulation
EC	Electrical Conductivity
ERA	Ecological Risk Assessment
HDPE	High-density Polyethylene
HEPA	Heads of EPA
HMAS	His Majesty's Australian Ship
LCS	Laboratory control sample
LOR	Limit of reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan Version 3.0
NEPM	National Environment Protection Measure
NPUG	non-potable use of groundwater
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation reduction potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RPD	Relative percentage difference
SAQP	Sampling Analysis and Quality Plan

Acronym	Term
SW	Surface Water
TDS	Total Dissolved Solids
WA	Western Australia

List of units

Units	Term
%	Percentage
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per Centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
mg/kg	Milligrams per Kilogram
mm	Millimetre
mV	Millivolt
pH	Potential of Hydrogen

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1. Introduction

GHD Pty Ltd (GHD) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at His Majesty's Australian Ship (HMAS) Stirling (hereafter referred to as the 'base') in Western Australia (WA). The location of the base, the surrounding PFAS Management Area and key base features are shown in Figure 1 and Figure 2 in Appendix A

The OMP (RPS, 2018a) and its associated Sampling Analysis and Quality Plan (SAQP, GHD 2025) outlines the rationale and scope for the monitoring of the concentrations and extent of PFAS in groundwater, surface water, sediment and porewater at the base and within the Management Area. Monitoring is undertaken on a quarterly basis including March, June, September and December sampling events. This Sampling Event Factual Report documents the results of the December 2024 sampling event.

1.1 Objectives

The key objectives of the OMP are to evaluate:

– The spatial and temporal (including seasonal) nature and extent of PFAS impact in the environment associated with site sources of PFAS derived from legacy use of aqueous film-forming foam (AFFF);
– Changes to the Conceptual Site Model (CSM), which describes the current understanding of PFAS sources, transport pathways and receptors;
– Whether current risks to human and ecological receptors require review;
– The influence that risk management activities at the base, as outlined in the PFAS Management Area Plan (PMAP) (Department of Defence, 2021) have had on PFAS in the environment; and
– Whether any identified changes trigger an action and/or review.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PMAP (Department of Defence, 2021).

1.2 Purpose of this report

This Sampling Event Factual Report documents the results of the December 2024 Quarterly Sampling Event, specifically highlighting first-time detections and/or new exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA).

An Ongoing Monitoring Report (OMR) will be prepared following the completion of each 12-month sampling period.

This report has been prepared in accordance with the Defence *Ongoing Monitoring Program Reporting Guidance* issued in February 2024 (Department of Defence, 2024).

2. Scope of work

The scope of work was completed with reference to the GHD (2025) SAQP, as follows:

- Organised fieldwork and obtain approval for base access to monitoring locations.
- Collection of samples and field parameters at 63 scheduled groundwater locations, 39 porewater locations, 28 surface water locations and 39 sediment locations (refer to Table 1 and Table 2 below and Figure 3 to Figure 7 in Appendix A for specific locations).
- Collection of samples for quality assurance and quality control (QA/QC)
- Analysis of samples for PFAS suite at a limit of reporting (LOR) nominated in the SAQP.
- Data management of the OMP field and laboratory data in the Defence ESdat database.
- Preparation of this Sampling Event Factual Report for the December 2024 Quarterly Sampling Event.

2.1 Sampling locations

2.1.1 Groundwater monitoring locations

The groundwater monitoring locations monitored as part of the OMP are presented in Table 1 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 1 OMP groundwater monitoring locations

Area (and Figure ref.)	Monitoring Well / Bore ID
Fire Training Area (Figure 3)	MW109, MW112, MW500, MW120, MW121, MW123, MW124, MW125, MW126, MW127 and MW128
Demolition Ground (Figure 4)	MW139, MW141, MW142, MW147 and MW149
WWTP (Figure 5)	MW158, MW161, MW166, MW171, MW173, MW193, MW195D, MW195S, MW196, MW199, MW200, MW202, MW203 and MW468
Helicopter Support Facility (Figure 6)	MW214, MW215, MW216, MW217, MW220, MW224, MW225, MW226, MW227, MW228 and MW282
Accommodation Area (Figure 7)	MW288 and MW289
Dredged Sediments (Figure 7)	MW268 and MW269
AVCAT Storage and Fuel Farm (Figure 7)	MW233, MW236, MW238, MW239, MW240, MW242, MW243, MW245, MW249, MW496 and MW516
Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage (Figure 7)	MW010, MW255, MW256, MW257, MW258, MW259 and MW553

2.1.2 Porewater, surface water and sediment monitoring locations

The porewater and sediment locations and the surface water monitoring locations are presented in Table 2 and are presented in Figure 3 to Figure 7 in Appendix A.

Table 2 OMP Surface water, porewater and sediment locations

Area (and Figure ref.)	Surface water sampling location ID	Sediment sampling location ID	Porewater sampling location ID
Fire Training Area (Figure 3)	SW130, SW132, SW134	SD335, SD340, SD341, SD362, SD363, SD364	PW335, PW340, PW341, PW362, PW363, PW364
Demolition Ground (Figure 4)	SW150, SW152, SW154, SW156	SD329, SD330, SD331, SD356, SD357, SD358	PW329, PW330, PW331, PW356, PW357, PW358

Area (and Figure ref.)	Surface water sampling location ID	Sediment sampling location ID	Porewater sampling location ID
WWTP (Figure 5)	SW305, SW353, SW370, SW371, SW372, SW373, SW382, SW383, SW384	SD304, SD345, SD350, SD351, SD352, SD367, SD368, SD369, SD380, SD381, SD401	PW304, PW345, PW350, PW351, PW352, PW367, PW368, PW369, PW380, PW381, PW401
Helicopter Support Facility (Figure 6)	SW309, SW310, SW311, SW406, SW408, SW410, SW412, SW414, SW416	SD306, SD307, SD308, SD314, SD315, SD316, SD405, SD407, SD409, SD411, SD413, SD415	PW306, PW307, PW308, PW314, PW315, PW316, PW405, PW407, PW409, PW411, PW413, PW415
Accommodation Area (Figure 7)	-	SD346	PW346
Dredged Sediments (Figure 7)	SW317, SW318, SW319	SD374, SD375, SD378	PW374, PW375, PW378

2.2 SAQP deviations

The Post Winter 2024 biannual sampling event was completed in general accordance with:

- The SAQP (GHD, 2025).
- GHD's health and safety protocols.
- GHD's standard operating procedures for field work, which have been developed in accordance with WA contaminated land guidance.

Deviations from the SAQP are outlined in Table 3.

Table 3 Summary of deviations from the OMP SAQP.

Location	Deviation	Comments
MW195S	Not sampled	Well blocked and unable to be sampled – no data collected.
MW202	Not sampled	Well could not be located – no data collected.
PW307, PW308, PW314, PW315 and PW316	Not sampled	These sampling locations are located south of the Helicopter Support Facility. Hard limestone and ground conditions prevented the pore water sampler to be driven into the ground to abstract porewater.
Demolition ground	Sampling completed in January	The demolition ground could not be accessed during the December mobilisation. Sampling was instead completed in January.

3. Methodology

3.1 Sampling methodology

The methodology used for the Post Winter 2024 biannual sampling event was completed in accordance with the SAQP (GHD, 2025) as outlined in the following sections.

3.1.1 Groundwater sampling methodology

Groundwater sampling methodology is outlined in Table 4.

Table 4 Groundwater sampling methodology

Activity	Details
Well Gauging	Monitoring wells were first gauged to allow subsequent correction of groundwater levels relative to Australian Height Datum (AHD) prior to groundwater sample collection. All depth measurements referenced the top of the well casing as an established datum.
Groundwater Physicochemical Parameters	The physicochemical parameters were recorded via a pre-calibrated water quality meter from HydraSleeves® or via a peristaltic pump. The following parameters were recorded: – pH. – electrical conductivity (EC). – oxidation reduction potential (ORP). – Dissolved oxygen (DO). – Temperature. – Total Dissolved Solids (TDS). The water quality meter was calibrated by the equipment supplier and daily readings of reference solutions ("bump tests") were completed to optimise the accuracy of the measurements taken.
Deployment and Retrieval of HydraSleeves®	In compliance with section 18 of the Heads of EPA National Environmental Management Plan 3.0 (HEPA NEMP), groundwater samples were collected using bore-dedicated polypropylene HydraSleeves®. The HydraSleeves® were installed and left in place for a minimum of 24 hours prior to retrieving for sample collection. Where monitoring well construction details were available, the HydraSleeves® were positioned to target the mid-section of the screened interval. Where construction details were not available, the HydraSleeves® were placed approximately 1 m from the base of the monitoring well. Samples were collected via continuous pull method at a rate allowing the water to pass through the check value into the sample sleeve. Samples were discharged immediately (to minimise changes in chemistry) via discharge tube. Following sampling, new HydraSleeves® were deployed in preparation for the next OMP monitoring event using the same string for consistency (same depth of sampling i.e. within screen depth). In the event that a monitoring well was found to contain a HydraSleeve® that belonged to another program, the HydraSleeve® was used for sampling (if it was in satisfactory condition) as outlined above, then replaced with a new HydraSleeve®.
Alternative sampling methodology (low flow micro-purge)	In the event the water column wasn't sufficient to fill the HydraSleeve®, the HydraSleeve® was deployed with a top weight and left in wells for a minimum of 24 hours to allow restabilisation of the well. During the December sampling event, this approach was applied at monitoring wells MW109, MW120, MW123, MW128, MW158, MW166, MW193, MW196, MW200, MW214, MW215, MW216, MW217, MW220, MW224, MW225, MW227, MW233, MW236, MW239, MW242, MW249, MW468 and MW553. If the HydraSleeve® was then retrieved with no or insufficient sample volume, low flow sampling occurred via a low flow micro-purge pump using the following methodology: – Post-gauging, each monitoring well was purged using a low flow micro-purge pump fitted with bore-dedicated inert silicone and High-density Polyethylene (HDPE) tubing. The upper end of the tubing was connected to the flow cell of a water quality meter positioned to prevent entrapment of oxygen.

Activity	Details
	– The pump intake was placed approximately 0.5 m below the top of screen (or at least 0.5 m below the top of the water column) to ensure collection of samples representative of groundwater quality beneath the base. – Measurement of water quality parameters was undertaken immediately after the flow cell was full and continued thereafter at two to five-minute intervals during the purging process. Field parameters including pH, DO, ORP, EC, TDS and temperature were measured and recorded on field data sheets during purging until stabilisation was achieved. – Purging was undertaken until stabilisation of field parameters was achieved after which the well was subsequently sampled. Parameters were considered stable when they are within the following range (where practicable within the time constraints of the program): • Temperature: +/- 0.02 °C • pH: +/- 0.05 • EC: +/- 3% • DO: +/- 10% • ORP: +/- 10 mV – Representative groundwater samples were collected directly from the HDPE tubing into laboratory supplied pre-preserved sample containers. During the December sampling event, the low flow pump method was used at monitoring well MW121.
Field Records	Field records included the following information: – Gauging data – Sampling time and date. – Weather conditions. – Sample collection method. Where a HydraSleeve® is used for sample collection, the target interval depth was recorded. – Stabilised field parameters. – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. – Calibration and daily bump test records. – Well gauging records. All sample documentation including field notes, reporting records, Chain of Custody (CoC) and equipment calibration certificates and procedures were retained within project files.
Decontamination procedure	Dedicated HydraSleeves® and single use nitrile gloves were used at each groundwater bore thus preventing cross-contamination. Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.
Sample identification, preservation transport and holding times	Each sample bottle was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were collected directly in appropriately preserved laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under CoC documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998).

3.1.2 Surface water sampling methodology

The methodology for the surface water monitoring is detailed in Table 5.

Table 5 Surface water sampling methodology

Item	Details
Physicochemical parameters	Surface water physiochemical parameters (i.e., pH, EC, ORP, DO, TDS and temperature) were recorded at the time of sampling using a pre-calibrated water quality meter. Field observations such as odours or sheen presence were also recorded on field sampling sheets.
Sampling Method	Where the embankment of the water body was stable and the water body could be safely accessed, surface water samples were collected by hand, directly into the laboratory supplied sample containers using a 'Grab' (manual) sample method. Where depth permits, the sample container was positioned at least 10 cm below the surface water level and above the sediment bed and oriented with the capped opening facing downwards to avoid the collection of surface films. Once in position, the container cap was removed to allow sample collection. Where sampling points could not be safely accessed, surface water samples were collected using a long-handled sampler and decanted into the laboratory supplied sample containers. Samples were collected in accordance with Australian/New Zealand Standards (AS/NZS 5667.1:1998) Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.
Sample Collection	Water samples were placed directly into appropriately labelled, laboratory-supplied sample bottles and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.
Sample identification, preservation, transport and holding times	Each sample container was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the Chain of Custody (CoC). Samples were contained in appropriately preserved laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under CoC documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998 as appropriate).
Field Records	Field records included the following information: – Sampling time and date. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. – Calibration and daily bump tests records. All sample documentation including field notebooks, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.

3.1.3 Sediment sampling methodology

The methodology for sediment sampling is detailed in Table 6.

Table 6 Sediment sampling methodology

Item	Details
Sediment Sample Collection	Sediment samples were collected at the sediment/water interface using hand tools (e.g. trowel, hand auger, PVC pipe etc.) with samples placed directly into appropriately labelled, laboratory supplied sample containers and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation.

Item	Details
	At each sampling location, the sediment sample was visually assessed and observations (including physical description) recorded on field data sheets.
Field Records	Field records included the following information: – Sampling time and date. – Weather conditions. – Sample collection method. – Observations regarding sediment quality (e.g., colour, grain size etc.) or obvious indicators of contamination (e.g., staining). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. All sample documentation including field notebooks, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.1.4 Porewater sampling methodology

The methodology for porewater sampling is outlined in Table 7.

Table 7 Porewater sampling methodology

Item	Details
Porewater Sample Collection	Sampling was conducted using a reusable stainless steel piezometer which has a screened zone consisting of a series of very fine interlaced machined slots to allow porewater to enter the sampler. The sampling end of the piezometer was inserted into the surficial marine sediments to approximately 0.5 m below the surface. Once the target sample depth was reached, porewater was collected using a peristaltic pump fitted with bore-dedicated silicone and HDPE tubing into laboratory supplied bottles. Field parameters were recorded (pH, EC, TDS, redox, DO and temperature). Purging prior to sampling was not considered necessary due to the highly transmissive nature of the intertidal zone sediments. Field EC and/or TDS readings were used to assess whether the porewater sample is representative of discharging groundwater and not purely seawater.
Field Records	Field records included the following information: – Sampling time and date. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. All sample documentation including field notes, reporting records, COC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. Tubing was replaced at each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.2 Quality assurance and quality control

Quality assurance (QA) involves all the actions, procedures, checks and decisions, undertaken to ensure the representativeness and integrity of samples and accuracy and reliability of analytical results (NEPM, 2013). Quality control (QC) involves protocols to monitor and measure the effectiveness of QA procedures.

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (GHD, 2025). A review of the field and laboratory QA/QC performance from the investigation is presented in the QA/QC data validation report, Appendix B. Key findings of the data validation report include:

– The majority of the calculated relative percentage difference (RPD) in concentrations for each duplicate pair, as presented in Tables B1 and B2 of Appendix B, were within acceptable limits. In most cases, RPD values greater than the acceptance criterion of 30% are considered reflective of the proximity of the reported concentrations to the LOR (i.e., less than 10 times the LOR). On this basis, the RPDs greater than 30% are considered to have minimal impact on the data quality.
– Field blank analytical results, as provided in Table B3 of Appendix B, were less than the LOR in all cases.
– Rinsate blank analytical results, as provided in Table B3 of Appendix B, were less than the LOR in all cases.
– Trip blank analytical results, as provided in Table B3 of Appendix B, were less than the LOR in all cases.

Overall, the QA/QC assessment concluded that the collected data is considered appropriate for the work undertaken and are considered usable for the purpose of this assessment.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements (Department of Defence, 2018).

4. Guideline values

A summary of the current PFAS guideline values for groundwater, surface water and porewater considered relevant to the base is presented as Table 8. The guideline values are largely based upon the PFAS NEMP (HEPA, 2025) which presents a consolidated set of health- and ecology-based Australian PFAS guideline values for soil and water that are derived from various guidelines and publications. It is noted that there are currently no Australian regulatory endorsed guideline values for risk posed to ecology or human health by PFAS in sediment.

Table 8 Relevant PFAS assessment guideline value

Exposure scenario	Source	Assessment guideline value		
		PFOS	PFOS+PFHxS	PFOA
Groundwater				
Health: potable use of groundwater	PFAS NEMP	0.07 µg/L	0.07 µg/L	0.56 µg/L
Health: domestic non-potable use of groundwater (NPUG)	DWER (2021)*	0.7 µg/L	0.7 µg/L	5.6 µg/L
Surface water and pore water				
Health: Recreational water use	PFAS NEMP	NE	2 µg/L	10 µg/L
Ecology: aquatic ecosystems (99% species protection)		0.00023 µg/L	NE	19 µg/L

Notes:

NE: not established

*Since completion of the Detailed Site Investigation (DSI) (RPS, 2018a) and development of the PMAP (Department of Defence, 2019), the WA DWER Assessment and Management of Contaminated Sites (DWER 2021) guideline has been updated and includes clear guidance regarding consideration of PFAS exposure risks from domestic non-potable use of groundwater (NPUG) by applying a factor of ten to the PFAS NEMP drinking water criteria. DWER (2021) also notes that the drinking water criteria should be adopted as screening criteria in situations where consumption of homegrown produce is a credible exposure pathway. While these exposure pathways are not considered credible pathways based on currently available information (refer to GHD, 2025) it is proposed to consider the criteria for completeness as part of implementation of the OMP and any subsequent studies.

It is important to note that an Ecological Risk Assessment (ERA) (RPS, 2018b)has been completed for the base to assess the potential risks to the environment associated with presence of PFAS within the Management Area. While the OMP will evaluate PFAS concentration data with reference to the ecology-based guideline values identified in Table 8, decision-making concerning changes to risks posed to ecological receptors of the Management Area will also be made with reference to the ERA conclusions and the dataset that informed it within the forthcoming OMR.

5. Field observations and results

5.1 General observations

The sampling event was completed over 12 days across December 2024 and January 2025. The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the sampling event are summarised in Table 9.

Table 9 General field observations

Items	Observations
Weather Conditions	During the sampling event, the weather was observed to be mostly hot and dry, with maximum daily temperatures ranging from 22.7 ˚C (14 January 2025) and 34.6 ˚C (11 December). No rainfall was recorded during the sampling event. 0.6 mm of rainfall was recorded in the 48 hours prior to the sampling event. Information obtained from Garden Island HSF (Station ID 009256) (Bureau of Meteorology, 2025).
Estate Management Works, Training Activities and/or Construction Works.	None observed.

5.2 Field observations and measurements

The observations and measurements recorded during the field activities for the December quarterly sampling event are summarised in Table 10.

Table 10 Summary of field observations and measurements

Item	Description
Access and sample collection	Most sampling locations were accessible and able to be sampled. Some groundwater and porewater locations were unable to be sampled due to either blockages or field staff being unable to locate the well (refer to Table 3).
Water and sediment observations	Porewater was predominantly colourless and clear with a low to moderate sediment load, no odour and no sheen. Groundwater was predominantly colourless and clear with a low to moderate sediment load, no odour, and no sheen. A hydrocarbon odour was observed at MW126, MW199, MW200, MW245, MW516 and MW553 and MW199. MW128 was noted to have an organic odour. Surface water was observed to be clear and colourless. Sediment locations were observed to have either grey or yellow, fine to medium gained sand.
Groundwater flow direction	The calculated groundwater elevations (m AHD) are presented in Table C1 (Appendix C) and inferred groundwater flow directions are presented in Figures 3 to 7 (Appendix A). Groundwater depths recorded across the base's different areas during the December 2024 Quarterly Sampling Event are summarised below: **Demolition Ground** Groundwater mounded at MW147 and flowed in a north-westerly and south-easterly direction towards MW141 and MW149. **Wastewater Treatment Plant** Groundwater generally flowed in an easterly direction towards Cockburn Sound. **Helicopter Support Facility** Groundwater mounded at MW216 and MW217, and flowed predominantly in an easterly direction, and with moderate flow occurring to the south and west of MW216. **Main Base Layout** Groundwater flowed in a general south-easterly direction.

Item	Description
Physicochemical parameters	The recorded physicochemical parameters are presented in Tables C1, C2 and C3 in Appendix C and are summarised below: **Groundwater** – pH ranged from 6.73 (MW256) to 7.71 (MW257) indicating slightly acidic to slightly basic conditions. – EC ranged from 433.7 µS/cm (MW245) to 41,372 µS/cm (MW226) indicating freshwater to saline conditions. – DO ranged from 0.24 mg/L (MW199) to 5.69 mg/L (MW217) indicating poor to well oxygenated conditions. – ORP ranged from -263.4 mV (MW199) to -2.1 mV (MW282) indicating a reducing environment. – Temperature ranged from 19.7 ºC (MW233) to 27.3 ºC (MW195D). – TDS ranged from 282.6 mg/L (MW245) to 26,894 mg/L (MW226) indicating fresh to highly saline conditions. **Surface water** – pH ranged from 7.8 (SW310) to 8.21 (SW410) indicating slightly basic to basic conditions. – EC ranged from 52,210 µS/cm (SW317) to 57,186 µS/cm (SW150) indicating overall saline conditions. – DO ranged from 0.74 mg/L (SW318) to 5.20 mg/L (SW317) indicating both poor and well oxygenated conditions present. – ORP ranged from -162 mV (SW317) to -37.8mV (SW310) indicating a reducing environment. – Temperature ranged from 22.8 ºC (SW353) to 31.7 ºC (SW410). – TDS ranged from 33,928 mg/L (SW317) to 36,692mg/L (SW132) indicating highly saline to brine conditions. **Porewater** – pH ranged from 7.17 (PW368) to 7.99 (PW358) indicating slightly basic conditions. – EC ranged from 5,530 µS/cm (PW409) to 63,008 µS/cm (PW345) indicating freshwater to saline conditions. – DO ranged from 0.47 mg/L (PW357) to 172 mg/L (PW351) indicating both poor and very well oxygenated conditions present. – ORP ranged from -225.1 (PW367) to 174.3 (PW375) indicating both an oxidizing and reducing environment. – Temperature ranged from 22.1 ºC (PW401) to 29.7 ºC (PW407). – TDS ranged from 20,366 mg/L (PW346) to 40,972 mg/L (PW345) indicating highly saline to brine conditions. Field notes are presented in Appendix F.
Sediment observations	Sediment descriptions were recorded during the collection of sediment samples and are presented in Appendix F. Generally, the material was found to comprise grey and yellow, fine to medium grained, subangular SAND.

5.3 Summary of analytical results

The PFAS analytical results for groundwater, surface water, sediment and pore water from this sampling event are presented in Table C4 to C7 in Appendix C and are also summarised in Figure 8 to Figure 14 in Appendix A.

5.3.1 Groundwater

In summary, 77 groundwater samples (including primary, blind and split duplicate samples) were analysed for PFAS compounds, with:

– 62 samples reporting PFOS+PFHxS concentrations above the LOR.
– 40 samples reporting PFOS concentrations above the LOR.
– 35 samples reporting PFOA concentrations above the LOR.

– 48 samples reporting PFOS+PFHxS concentrations exceeding the potable use of groundwater guideline value and 31 samples reporting PFOS+PFHxS concentrations exceeding the non-potable use of groundwater guideline value.
– 31 samples reported PFOS concentrations exceeding the potable use of groundwater guideline value and 23 samples reporting PFOS concentrations exceeding the non-potable use of groundwater guideline value.
– Six samples reporting PFOA concentrations exceeding the potable use of groundwater guideline value.

A comparison of the historic groundwater data is summarised in Table 11.

Table 11 Deviations from historical dataset – groundwater analytical results

Item	Sample location	PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Dec 2024	Previous Max	Dec 2024	Previous Max	Dec 2024	Previous Max
First time detections of PFOS+PFHxS, PFOS or PFOA?	MW127	0.02	<0.01	No first time detection		No first time detection	
New exceedance of human health guideline value?	MW217	1.11	0.49	0.57	0.43	1.05	0.4
New historical maximum	MW127	0.02	<0.01	No new maximum		No new maximum	
	MW171	No new maximum		No new maximum		2.55	2.19
	MW215	No new maximum		No new maximum		0.04	0.02
	MW217	1.11	0.49	0.57	0.43	1.05	0.4
	MW258	No new maximum		No new maximum		11.1	10
	MW268	0.82	0.8	No new maximum		No new maximum	
	MW269	No new maximum		0.03	0.02	No new maximum	
	MW496	No new maximum		No new maximum		8.18	8.16
	MW500	No new maximum		No new maximum		61.6	57.8
	MW553	0.06	0.01	No new maximum		No new maximum	

Notes:
N/A - not applicable.

5.3.2 Surface water

In summary, 38 surface water samples (including primary, blind and split duplicate samples) were analysed for PFAS compounds, with:

– Eight samples reporting PFOS+PFHxS concentrations above the LOR.
– Eight samples reporting PFOS concentrations above the LOR.
– No samples reporting PFOA concentrations above the LOR.
– No samples reported PFOS concentrations exceeding the adopted recreational human health guideline values for PFOS+PFHxS.
– All eight samples that reported PFOS concentrations above the LOR, the reported PFOS concentration exceeded the adopted ecological guideline value, noting that the LOR applied exceeds the guideline value. It cannot be determined whether PFOS concentrations reported below the LOR exceed the adopted ecological guideline value.
– No samples reported PFOA concentrations exceeding the adopted recreational human health or adopted ecological screening guideline values.

A comparison of the historical surface water data was conducted and no material deviations from the historical dataset were noted.

5.3.3 Sediment

In summary, 50 sediment samples (including primary, blind and split duplicate samples) were analysed for PFAS compounds, with:

- Two samples reporting PFOS+PFHxS concentrations above the LOR.
- Two samples reporting PFOS concentrations above the LOR.
- No samples reporting PFOA concentrations above the LOR.

A comparison of the historical sediment data was conducted and no material deviations from the historical dataset were noted.

5.3.4 Porewater

In summary 46 porewater samples (including primary, blind and split duplicate samples) were analysed for PFAS compounds, with:

- 21 samples reporting PFOS+PFHxS concentrations above the LOR.
- 20 samples reporting PFOS concentrations above the LOR.
- Two samples reporting PFOA concentrations above the LOR.
- No samples reporting PFOS+PFHxS concentrations exceeding the adopted recreational human health guideline values.
- In all 20 samples that reported PFOS concentrations above the LOR, the reported PFOS concentration exceeded the adopted ecological guideline value, noting that the LOR applied exceeds the guideline value. It cannot be determined whether PFOS concentrations reported below the LOR exceed the adopted ecological guideline value.
- No samples reporting PFOA concentrations exceeding the adopted recreational human health or adopted ecological screening guidelines values.

A comparison of the historic porewater data is summarised in Table 12.

Table 12 Deviations from historical dataset – porewater analytical results

Item	Sample location	PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Dec 2024 and Jan 2025	Previous Max	Dec 2024 and Jan 2025	Previous Max	Dec 2024 and Jan 2025	Previous Max
First time detections of PFOS+PFHxS, PFOS or PFOA?	PW405	No first-time detection		0.01	<0.01	No first-time detection	
New exceedance of human health guideline value?	N/A	No new exceedance		No new exceedance		No new exceedance	
New exceedance of ecological health guideline value?	N/A	No new exceedance		No new exceedance		No new exceedance	
New historical maximum	PW405	0.06	0.03	0.01	N/A	N/A	N/A

Notes:
N/A – not applicable.
NE - not established.

6. Summary and recommendations

6.1 Summary of monitoring event

The findings and recommended actions from the Post Winter 2024 sampling event are summarised in Table 13.

Table 13 Summary of sampling event

Item	Comment	Recommended Action
Access to sampling locations	All sampling locations were accessible apart from MW202 which could not be located by field staff during the sampling event.	The well has since been located and will be monitored as part of subsequent sampling events.
Location inaccessible, dry or blocked	-	-
Analytical results	77 groundwater samples were analysed. 38 surface water samples were analysed. 50 sediment samples were analysed. 46 porewater samples were analysed.	Locations will be sampled again during the next OMP sampling event. Data will be evaluated further within the context of the OMP objectives (refer to Section 1.1) as part of the forthcoming OMR.
First-time detections of PFOS+PFHxS, PFOS and/or PFOA	MW127 reported a first-time detection of PFOS+PFHxS. The recorded concentration (0.02 µg/L) was marginally above the LOR. PW405 reported a first-time detection of PFOA. No surface water or sediment locations reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA.	
New exceedance of human health guideline value?	MW127, M171, MW215, MW217, MW258, MW268, MW269, MW496, MW500 and MW552 recorded new historical maximum results of PFOS+PFHxS, PFOA and/or PFOS. MW217 was the only location to report new exceedances of the adopted human health guideline values for PFOS+PFHxS, PFOA and PFOS. No surface water, sediment or porewater locations reported new exceedances of the adopted human health guideline values for PFOS+PFHxS, PFOS and/or PFOA.	
New exceedance of ecological health guideline value?	No surface water or porewater locations reported new exceedances of the adopted ecological guideline values for PFOS and/or PFOA.	

6.2 Upcoming sampling events

The next OMP sampling event is scheduled for March 2025.

6.3 Upcoming ongoing monitoring report

The next OMR is scheduled to be delivered in Q3 2025, covering data collected between October 2023 and January 2025.

7. References

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RPS. (2018a). *Ongoing Monitoring Plan - HMAS Stirling PFAS.*

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GHD otherwise disclaims responsibility to any person other than Department of Defence arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

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Appendices

Appendix A

Figures



Paper Size ISO A3

0 300 600 900 1,200

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Base Layout and Management Area

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 1

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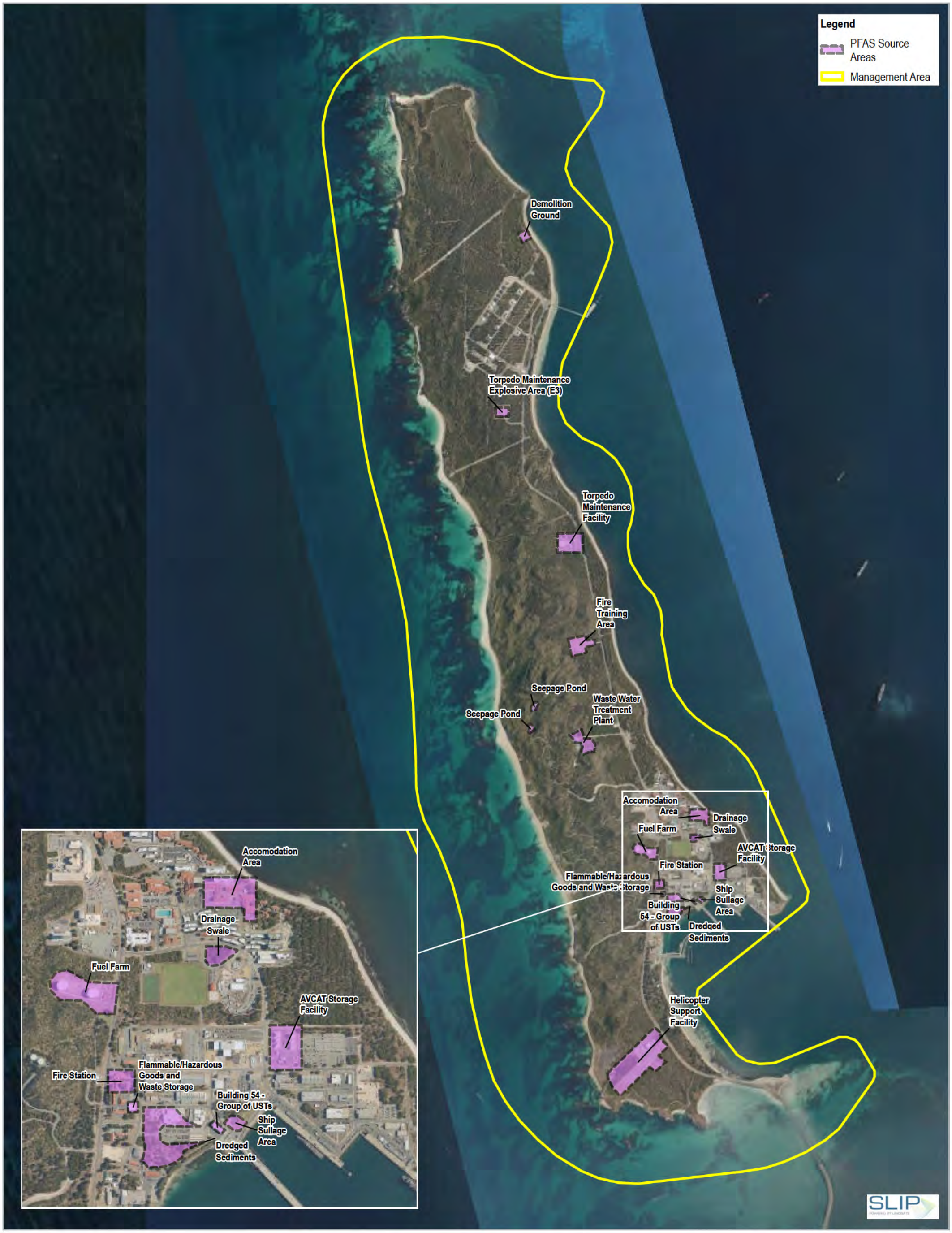

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

PFAS Source Areas

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 2

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N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Monitoring Locations – Fire Training Area

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 3

\\ghdnetghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMA5
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Paper Size ISO A3

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Monitoring Locations – Demolition Ground

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 4

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Print date: 23 Jun 2025 - 16:00

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Monitoring Locations – Wastewater Treatment Plant

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 5

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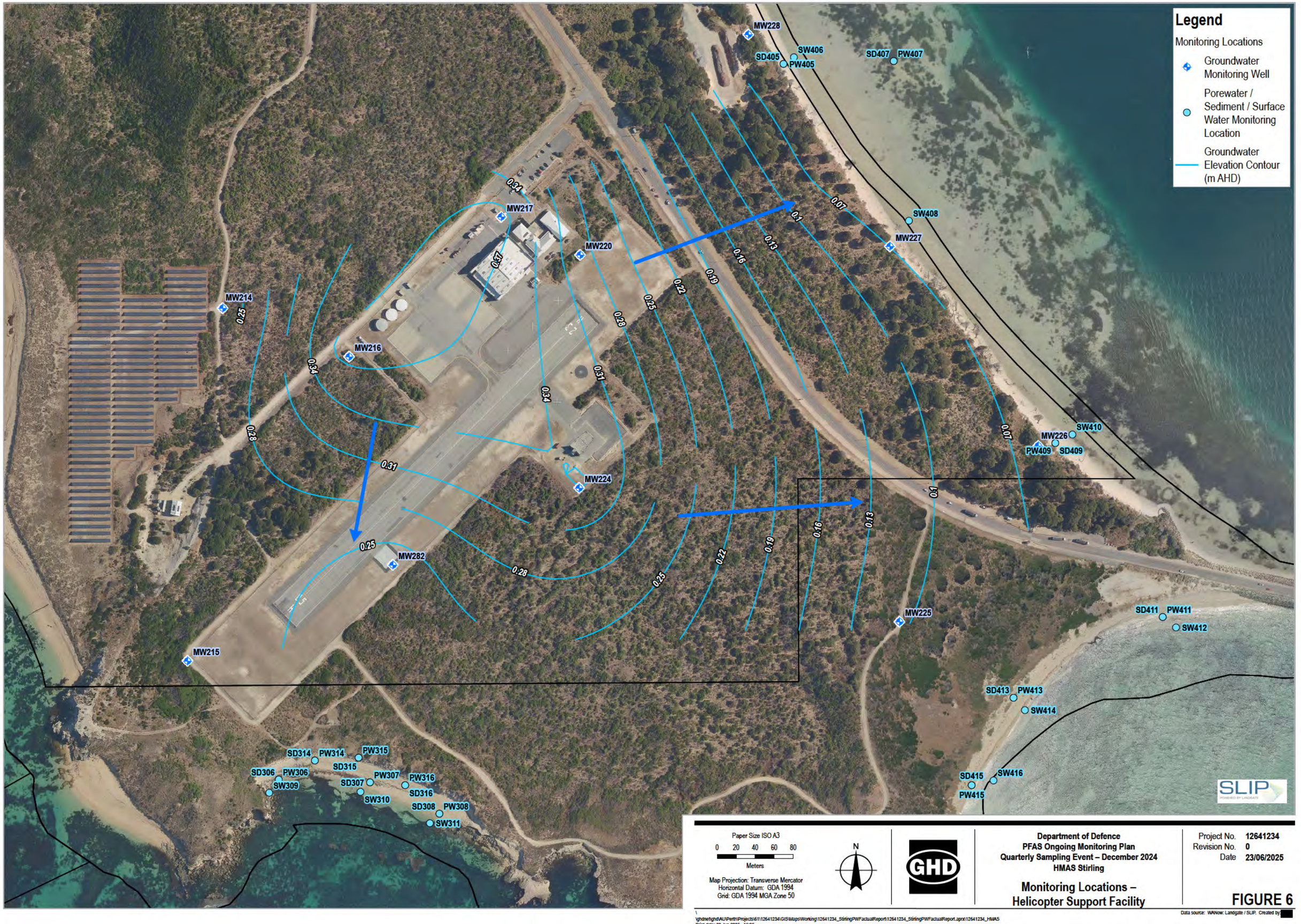

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Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Monitoring Locations – Helicopter Support Facility

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 6

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMA5
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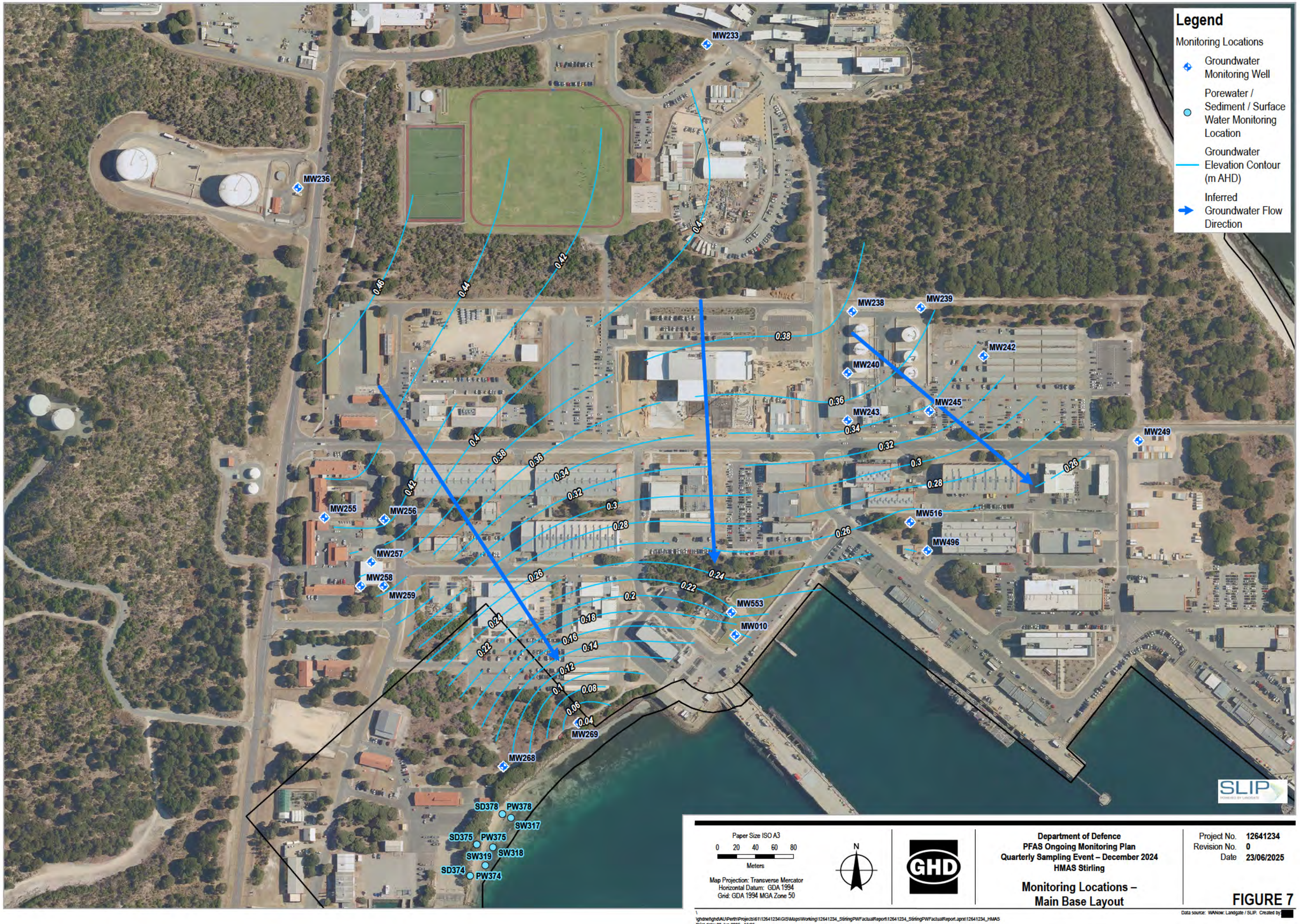

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Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Monitoring Locations – Main Base Layout

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 7

\\ghdnetghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMA5
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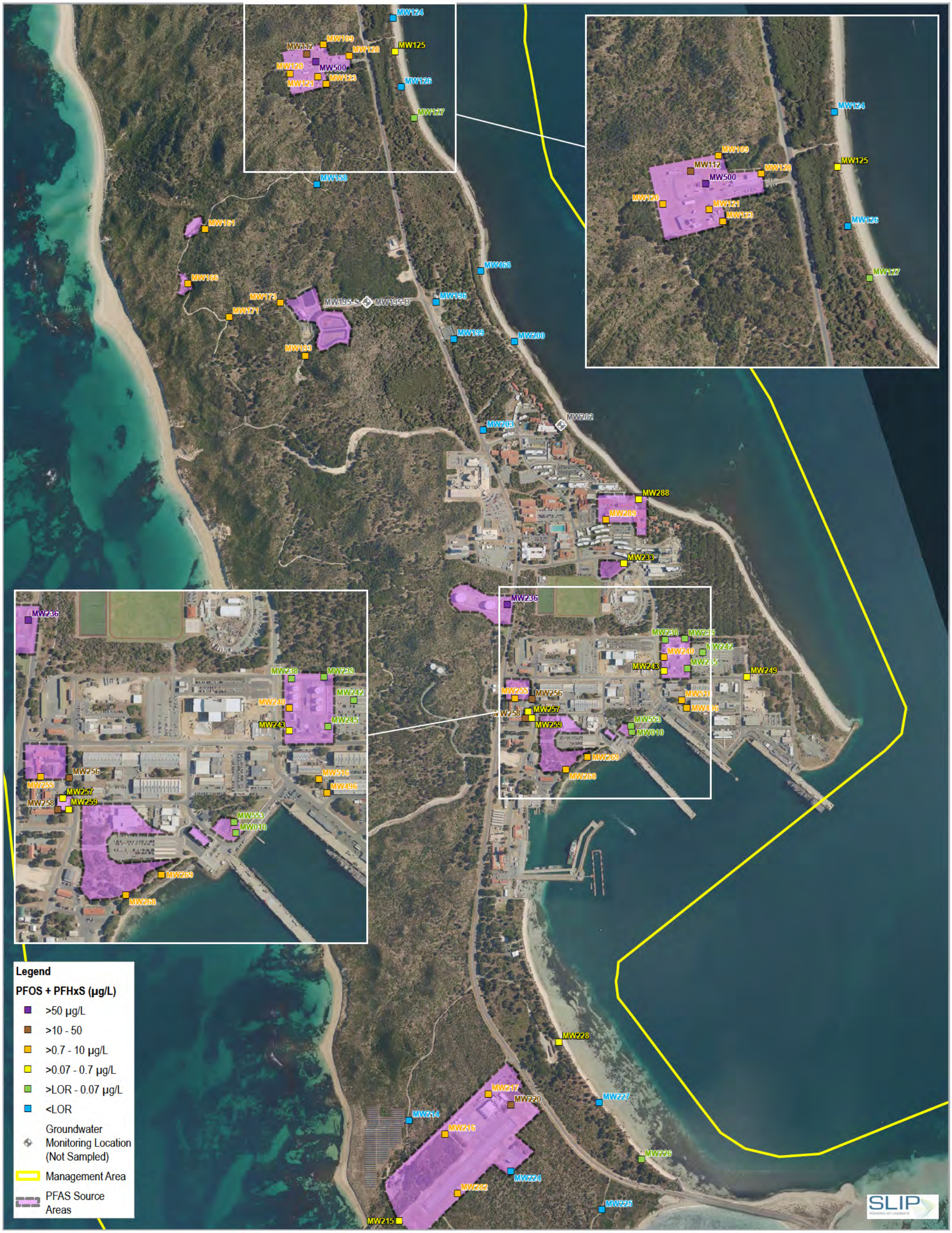

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Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Groundwater PFHxS + PFOS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 8a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMASStirlingQSEDec24_008a_GroundwaterPFHxS_PFOS_Rev0
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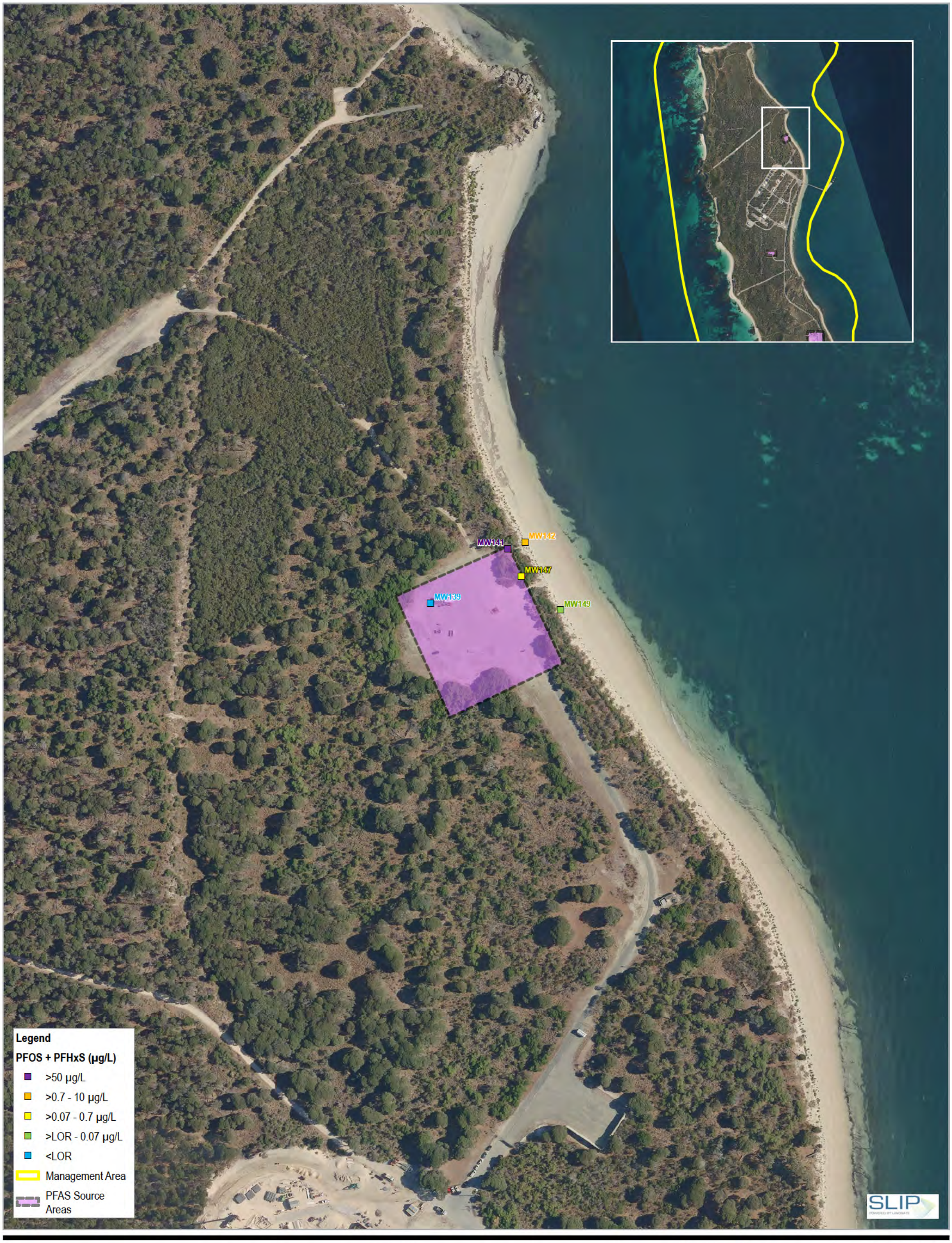

Paper Size ISO A3

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Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Groundwater PFHxS + PFOS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 8b

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MW125
MW120
MW500
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MW121
MW126
MW127
MW158
MW161
MW166
MW173
MW195-S
MW195-D
MW196
MW468
MW171
MW199
MW200
MW193
MW202
MW203
MW288
MW289
MW233
MW236
MW238
MW239
MW242
MW240
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MW245
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MW256
MW257
MW258
MW259
MW516
MW496
MW553
MW010
MW269
MW268
MW228
MW217
MW220
MW227
MW214
MW216
MW226
MW224
MW282
MW225
MW215

Legend

PFOA (µg/L)

- >0.56 - 5.6 µg/L
- >LOR - 0.56 µg/L
- <LOR
- Not sampled
- Management Area
- PFAS Source Areas

Paper Size ISO A3

0 125 250 375 500

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Groundwater PFOA Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 9a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMASStirlingQSEDec24_009a_GroundwaterPFOA_Rev0
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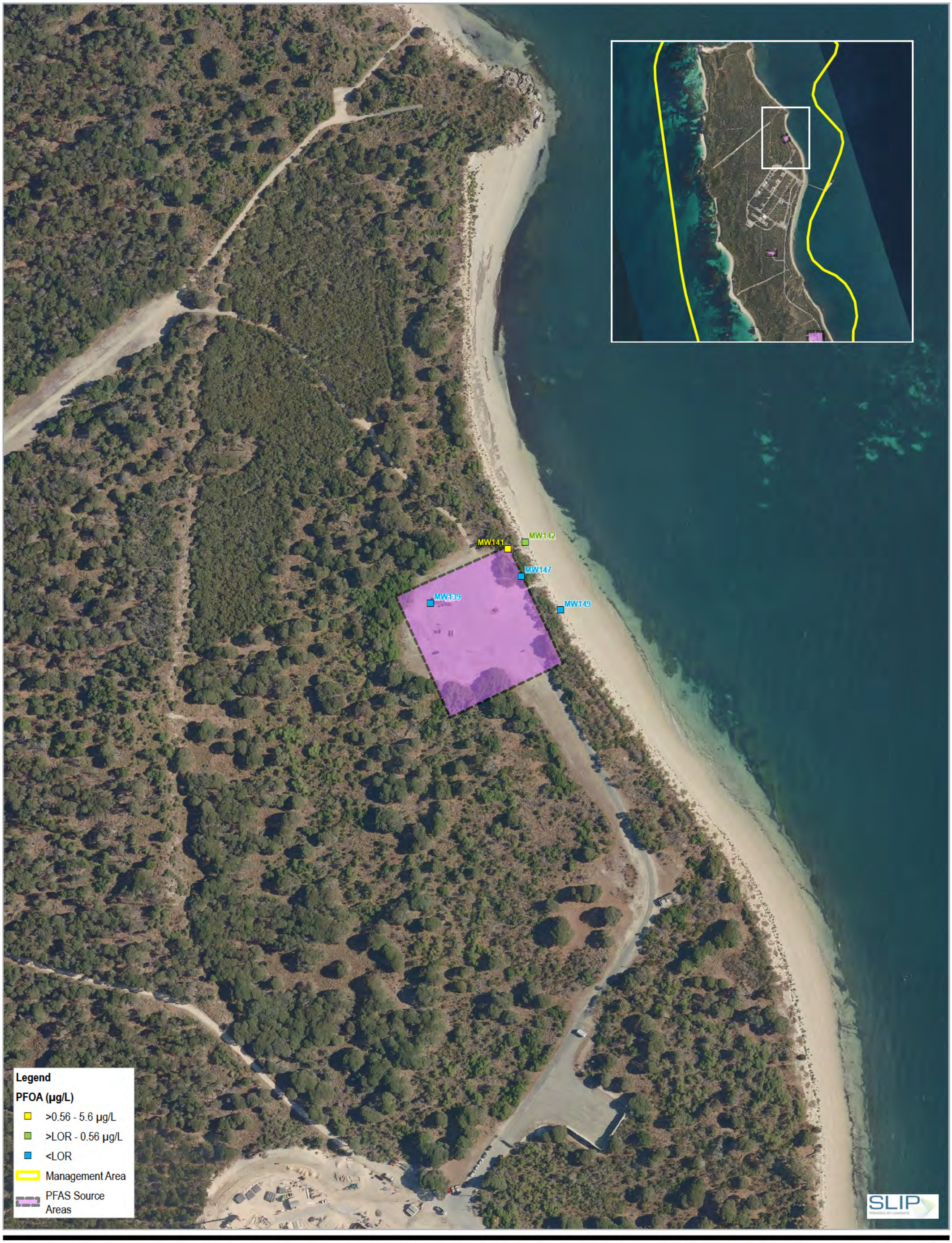

Paper Size ISO A3

0 25 50 75 100

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Groundwater PFOA Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 9b

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Meters

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Map Projection: Transverse Mercator
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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Surface Water PFHxS + PFOS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 10a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMASStirlingQSEDec24_010a_SurfaceWaterPFHxS_PFOS_Rev0
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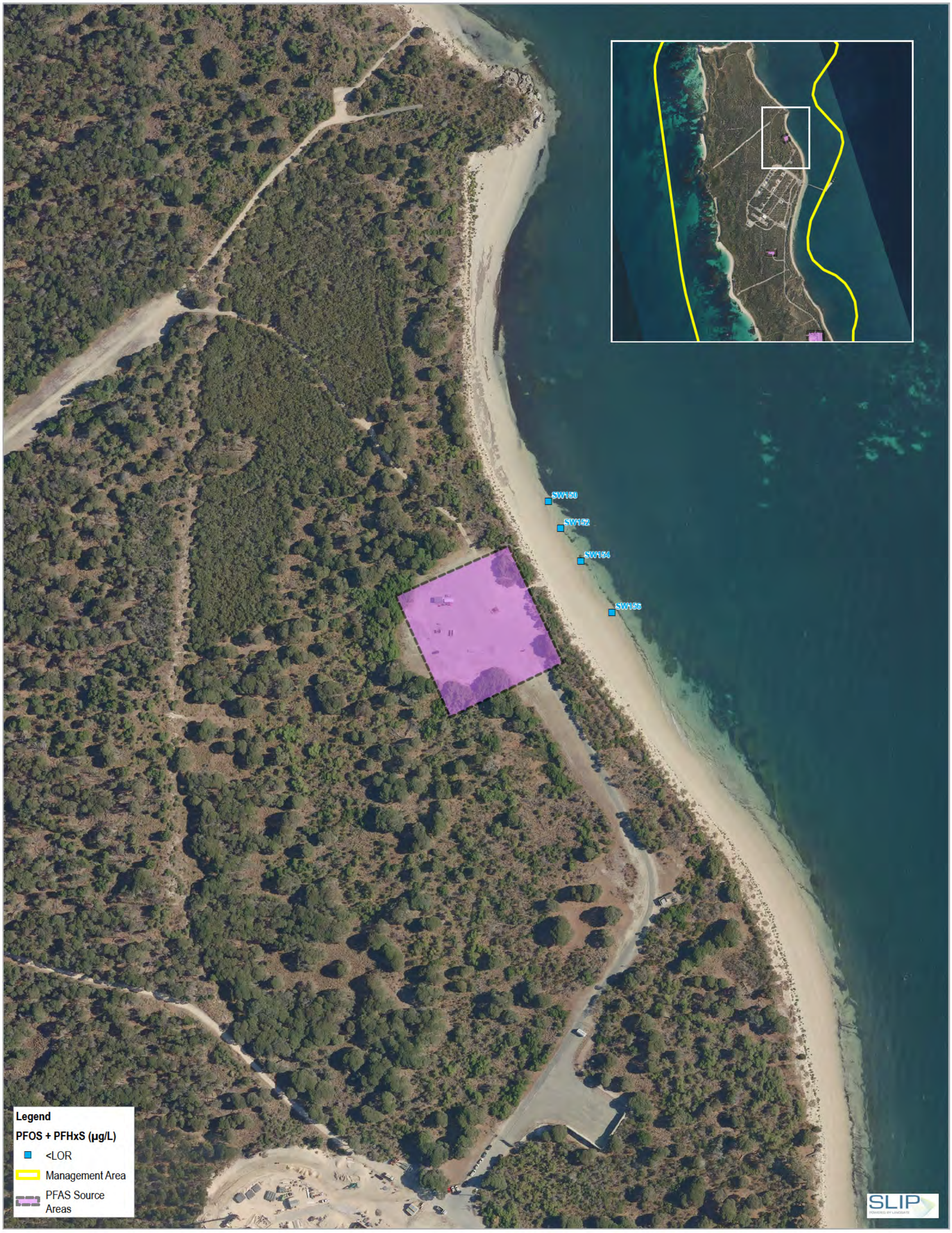

Paper Size ISO A3

0 25 50 75 100

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Surface Water PFHxS + PFOS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 10b

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Paper Size ISO A3

0 150 300 450 600

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

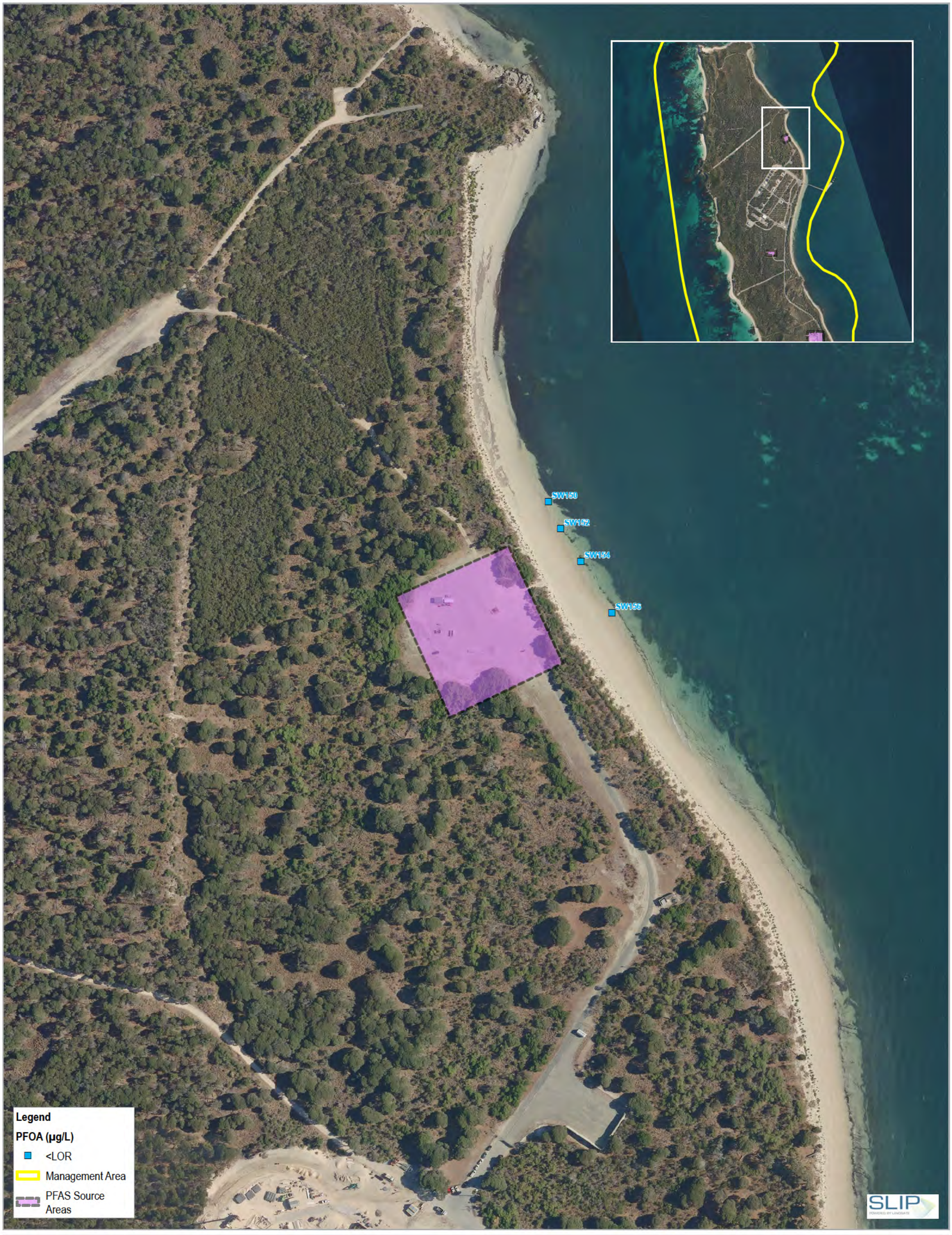
Surface Water PFOA Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 11a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMAS5StirlingQSEDec24_011a_SurfaceWaterPFOA_Rev0
Print date: 23 Jun 2025 - 16:10

Data source: WANow: Landgate / SLIP. Created by [redacted]



Paper Size ISO A3

0 25 50 75 100

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Surface Water PFOA Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 11b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMAS5StirlingQSEDec24_011b_SurfaceWaterPFOA_Rev0
Print date: 24 Jun 2025 - 09:58

Data source: WANow: Landgate / SLIP. Created by: [redacted]

PW335
PW364
PW340
PW362
PW341
PW363
PW350
PW401
PW380
PW351
PW381
PW352
PW369
PW345
PW367
PW368
PW304
PW346
PW378
PW375
PW374
PW306
PW314
PW315
PW307
PW316
PW308
PW405
PW407
PW409
PW411
PW413
PW415

Legend

PFOS + PFHxS (µg/L)

- >LOR - 2 µg/L
- <LOR
- Groundwater Monitoring Location (Not Sampled)
- Management Area
- PFAS Source Areas

Paper Size ISO A3

0 150 300 450 600

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Pore Water PFHxS + PFOS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 12a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMASStirlingQ5EDec24_012a_PoreWaterPFHxS_PFOS_Rev0
Print date: 23 Jun 2025 - 16:14

Data source: WANow: Landgate / SLIP. Created by [redacted]

PW356
PW331
PW357
PW330
PW358
PW329

Legend

PFOS + PFHxS (µg/L)

- <LOR
- Management Area
- PFAS Source Areas

Paper Size ISO A3

0 25 50 75 100

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Pore Water PFHxS + PFOS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 12b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMAS5StirlingQ5EDec24_012b_PoreWaterPFHxS_PFOS_Rev0
Print date: 24 Jun 2025 - 09:58

Data source: WANow: Landgate / SLIP. Created by: [redacted]

PW335
PW364
PW340
PW362
PW341
PW363
PW350
PW401
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PW351
PW381
PW352
PW369
PW345
PW367
PW368
PW304
PW378
PW375
PW374
PW314
PW315
PW306
PW307
PW316
PW308
PW407
PW409
PW411
PW413
PW415

Legend

PFOA (µg/L)

- <LOR
- Not sampled
- Management Area
- PFAS Source Areas

Paper Size ISO A3

0 150 300 450 600

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

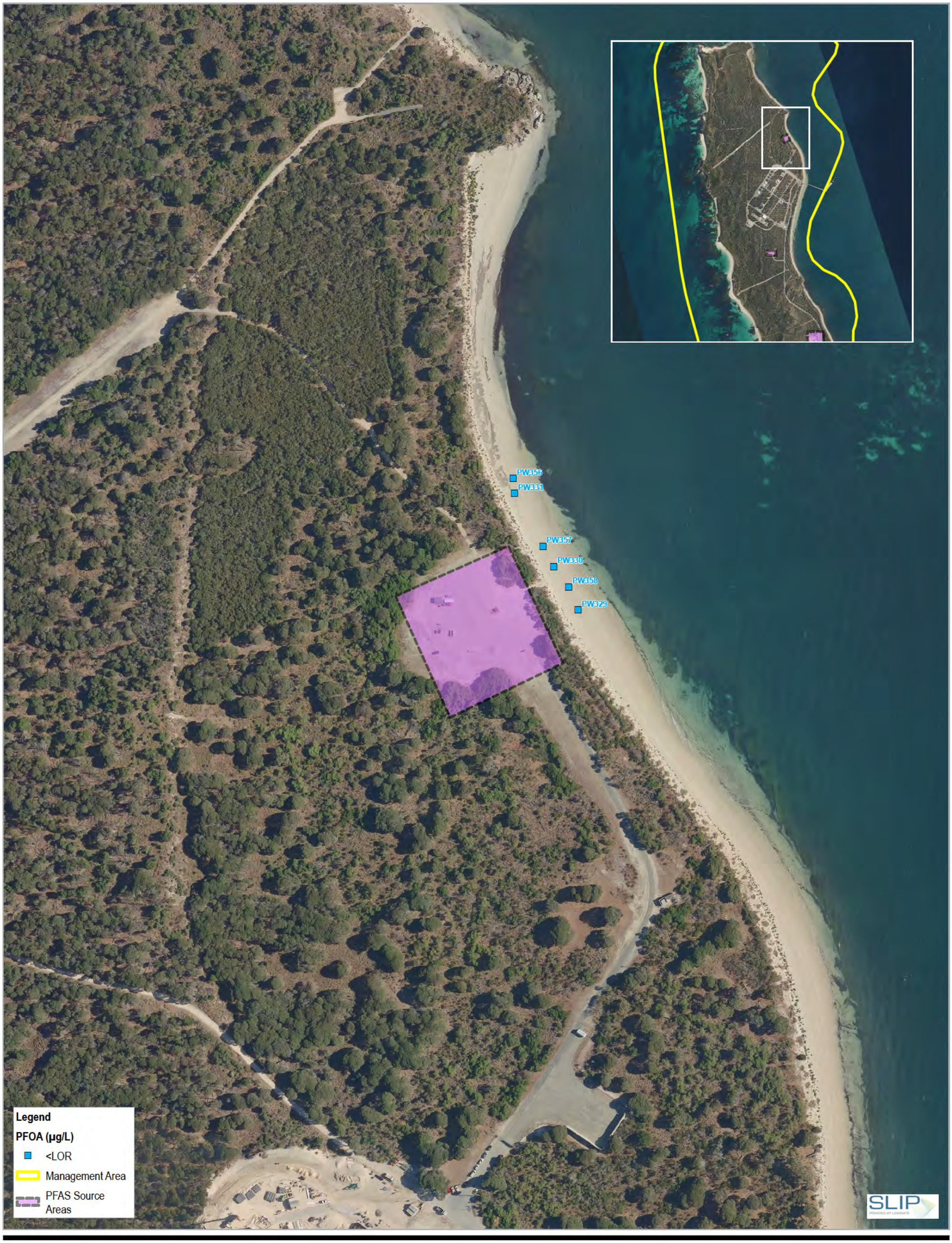
Pore Water PFOA Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 13a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMASStirlingQ5EDec24_013a_PoreWaterPFOA_Rev0
Print date: 23 Jun 2025 - 16:20

Data source: WANow: Landgate / SLIP. Created by [redacted]



Paper Size ISO A3

0 25 50 75 100

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Pore Water PFOA Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 13b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMAS5StirlingQSEDec24_013b_PoreWaterPFOA_Rev0
Print date: 24 Jun 2025 - 09:59

Data source: WANow: Landgate / SLIP. Created by: [redacted]

SD335
SD364
SD340
SD362
SD341
SD363
SD350
SD401
SD380
SD351
SD381
SD352
SD369
SD345
SD367
SD368
SD304
SD346
SD378
SD375
SD374
SD314
SD315
SD306
SD307
SD316
SD308
SD405
SD407
SD409
SD411
SD413
SD415

Legend

PFAS (µg/L)

- >LOR
- <LOR
- Management Area
- PFAS Source Areas

Paper Size ISO A3

0 150 300 450 600

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Sediment PFAS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **23/06/2025**

FIGURE 14a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMASStirlingQSEDec24_014a_SedimentPFAS_Rev0
Print date: 23 Jun 2025 - 16:21

Data source: WANow: Landgate / SLIP. Created by [redacted]

SD356
SD331
SD357
SD330
SD358
SD329

Legend

PFAS (µg/L)

- <LOR
- Management Area
- PFAS Source Areas

Paper Size ISO A3

0 25 50 75 100

Meters

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – December 2024
HMAS Stirling

Sediment PFAS Concentrations - December 2024

Project No. **12641234**
Revision No. **0**
Date **24/06/2025**

FIGURE 14b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_StirlingPWFactualReport\12641234_StirlingPWFactualReport.aprx\12641234_HMAS5StirlingQSEDec24_014b_SedimentPFAS_Rev0
Print date: 24 Jun 2025 - 09:59

Data source: WANow: Landgate / SLIP. Created by: [redacted]

Appendix B

Data validation

Appendix B

0089 HMAS Stirling– December 2024 QA/QC Evaluation

The QA and QC procedures were undertaken in accordance with the *ASC NEPM* and the *Assessment and management of contaminated sites* (DWER 2021).

QA involves all the actions, procedures, checks and decisions undertaken to ensure the representativeness and integrity of samples and the accuracy and reliability of analytical results (NEPC 2013). QC involves protocols to monitor and measure the effectiveness of QA procedures.

B-1 Fieldwork program

Field QA/QC procedures and compliance during the investigation are summarised in Table 1 below, with exceptions detailed in the following subsections.

Table 1 Summary of field work QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information / data acceptable?
Sampling methods	All sampling methods outlined in the HMAS Stirling OMP SAQP (GHD 2025) were adhered to.	Yes	Yes
Record keeping	Detailed records of field activities were maintained with the use of electronic or paper field sheets and quality control sample registers.	Yes	Yes, see Appendix F
CoC documentation	The CoC documentation was completed for each batch of samples, identifying the names of the samplers, the type of sample, the collection date, the analyses to be performed, sample preservation methods, and time the samples were relinquished to the courier.	Yes	Yes, see Appendix E
Sample labelling	Samples were properly labelled, showing reference number, sample ID, date of collection, sampler name and preservation techniques.	Yes	Yes
Sample containers	Samples were collected in appropriate laboratory supplied containers with suitable preservation methods (where required).	Yes	Yes
Sample storage and transport	Samples were stored in a chilled esky immediately after sampling prior to submission to the laboratory. Samples were kept in a chilled esky during delivery with CoC documentation. Samples were received at the laboratory at the recommended temperature (4 °C).	Yes, with exceptions	Yes, see Section B-1.1
Decontamination	Reusable field equipment (e.g. interface meter) were appropriately decontaminated using Liquinox between each sampling location.	Yes	Yes
Rinsate blanks	Rinsate samples were collected by the sampler on each day following decontamination of reusable sampling equipment. Analysis of rinsate blanks reported concentrations below laboratory LOR indicating equipment was decontaminated appropriately.	Yes	Yes, see Section B-1.2
Field blanks	Field blanks were collected by the sampler on each day to estimate potential contamination of a sample during the collection procedure. Analysis of field blanks reported	Yes	Yes, see Section B-1.2

QA/QC element	Requirement	Requirement adhered to?	Information / data acceptable?
	concentrations below laboratory LOR indicating no cross contamination occurred as a result of ambient conditions during sampling.		
Duplicate samples	Blind and split duplicate samples were collected for analysis by the primary and secondary laboratories, respectively (at a frequency of at least one pair per 10 primary samples). RPDs calculated for the duplicate samples were at or below 30%.	Yes, with exceptions	Yes, see Section B-1.3

B-1.1 Sample containers, storage, and transport

All samples were collected in appropriate laboratory supplied containers with suitable preservation methods (where applicable).

To aid sample integrity, all samples were promptly placed into a chilled esky (with double bagged ice or ice bricks) following the completion of sampling. Eskies were delivered to the primary laboratory (ALS Environmental) and secondary laboratory (Eurofins) as soon as practicable via courier.

As summarised in Table 2, all four sample receipts noted the samples were higher than the recommended temperature (4 °C). However, these receipts also noted the presence of ice or ice bricks and therefore it is considered that reasonable attempt to maintain the recommended sample temperature was made.

Table 2 Summary of sample receipt temperatures

Lab Report Number	Temperature (°C)	Earliest Sample Date	Lab Received Date	Comments
EP2419184	7.9	06/12/2024	20/12/2024	Ice present
EP2419185	7.9	12/12/2024	20/12/2024	Ice present
EP2419204	16.2	19/12/2024	20/12/2024	Ice present
EP2500597	12.0	14/01/2025	16/01/2025	Ice present

B-1.2 Quality assurance – blank samples

The groundwater QA samples collected during this sampling event were:

- **Rinsate blanks**: Rinsate blank samples are water samples collected from decontaminated, reused field equipment and were used primarily to assess whether the decontamination procedure was effective and if cross contamination has led to positive observations in subsequent samples. Rinsate samples were collected by pouring laboratory supplied rinsate water over reusable sampling equipment (e.g. interface probe) and collecting it in laboratory supplied containers. Rinsate samples were then transferred to a chilled cooler for sample preservation prior to and during transport to the testing laboratory.
- **Field blanks**: Field blank samples were used to estimate contamination of a sample during the collection procedure. Field blank samples were collected by pouring laboratory supplied rinsate water into laboratory supplied bottles onsite and sent to the laboratory for analysis along with other samples.

The blank samples collected and analysed as part of the quality assurance program are summarised in Table 3. All analyte concentrations for the transport, field, and rinsate blanks were below the laboratory LOR, except for those listed in Table 3. The tabulated blank sample results are shown in Table QC.1 in Attachment 1.

Table 3 Summary of rinsate, field and transport blanks

Lab report number	Sample type	Sample ID	Below LOR
EP2418001	Rinsate blank	0958_QC301_241126	Yes
		0958_QC302_241126	
		0958_QC303_241127	
		0958_QC304_241127	

Lab report number	Sample type	Sample ID	Below LOR
		0967_QC305_241128	
		0967_QC307_241129	
		0967_QC306_241128	No-PFHxS was reported at 0.01 µg/L, equal to the LOR. Limited impact on the overall data quality given the low concentration reported and given all other rinsate blanks did not contain PFAS concentrations above the LOR.
	Field blank	0967_QC401_241126	Yes
		0967_QC402_241127	
		0967_QC403_241128	
		0967_QC404_241129	
	Trip blank	0967_QC501_241129	Yes
		0967_QC502_241129	
EP2418361	Rinsate blank	0967_QC308_241203	Yes
		0967_QC309_241203	
		0967_QC310_241205	
		0967_QC311_241205	
		0967_QC312_241205	
		0967_QC313_241206	
	Field blank	0967_QC405_241203	Yes
		0967_QC406_241203	
		0967_QC407_241205	
		0967_QC408_241205	
		0967_QC409_241206	
	Trip blank	0967_QC503_241206	Yes
		0967_QC504_241206	
EP2418818	Field blank	0967_QC401_241210	Yes
	Trip blank	0967_QC501_241212	Yes
EP2501437	Field blank	0967_QC404_250128	Yes

B-1.3 Quality control – duplicate samples

The QC samples collected during the investigation were:

- **Blind duplicates**: Blind duplicate samples were used to identify the variation in the analyte concentration between samples from the same sampling point and the repeatability of the laboratory's analysis.
- **Split duplicates**: Split duplicate samples were used to provide an indication of the repeatability of the results between laboratories.

Field duplicate samples (blind and split) were collected in replicate bottles during sampling. The required analyses were performed by ALS Laboratory group (primary laboratory) and Eurofins (secondary laboratory), both of whom are NATA accredited.

B-1.3.1 Sample collection frequency

Based on the OMP (GHD 2019), one pair of duplicates (blind and split) was required to be collected and analysed per 10 primary PFAS samples. The frequency of groundwater duplicates collected for this assessment is summarised in Table 4.

Table 4 Duplicate sampling frequency summary

Matrix	Rate	Expected number of duplicate pairs	Number of blind duplicate samples collected	Number of split duplicate samples collected
Water	1 duplicate pair per 10 primary samples	11 (110 primary samples)	11	8
Sediment	1 duplicate pair per 10 primary samples	3 (26 primary samples)	2	2

It is noted that the number of split duplicate samples collected for water and the number of blind and split duplicate samples for sediment was non-conforming. This is considered to have limited impact on the overall data quality noting that PFAS concentrations recorded in the primary samples during the sampling event were largely consistent with historical data, indicating acceptable repeatability in sampling and analytical procedures. The non-conformance will however be corrected during future sampling events.

B-1.3.2 Relative percentage difference calculations

RPD calculations are used to assess how closely primary, blind duplicate and split duplicate sample results match. RPDs are a quantitative measure of the accuracy of the analytical results and are calculated in accordance with the procedure described in AS 4482.1 – 2005 (Standards Australia 2005). According to AS 4482.1 – 2005, typical RPDs are expected to range between 30% and 50%; however, this may be higher for organics and for low concentrations of analytes.

RPD results were considered acceptable if they were less than or equal to 30%. The only exception to this was when concentrations within the primary and blind or split sample were less than ten times the laboratory LOR. In this case, a greater RPD value is considered acceptable.

Where a result is reported below the laboratory LOR for one of the paired samples, the sample was assigned a concentration equal to the LOR for RPD calculation purposes. This is based on the consideration that the chemical may be present at a concentration just below the laboratory LOR or not present at all (i.e. the concentration is zero). Where both results are reported below laboratory LOR, the RPD is not calculated.

Water RPDs

For the water monitoring (including groundwater, surface water and potable water), a total of 185 RPDs were calculated, and five RPDs (i.e., 2.7%) exceeded the adopted (conservative) 30% RPD acceptable limit, where the primary and/or duplicate sample concentrations were greater than ten times the laboratory LOR. 21 RPDs were recorded to be higher than the 30% RPD limit, but the primary and/or duplicate sample concentrations were lower than ten times the laboratory LOR, and were therefore considered acceptable. 475 RPDs could not be calculated as both the primary and duplicate/split sample concentrations were less than the laboratory LOR. A summary of these exceedances is detailed in Table 5 and full calculations are provided in Table QC.2 in Attachment 1.

Table 5 Summary of water RPD exceedances

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Acceptable?
0967_POT125_241211 / 0967_QC204_241211 (Split Duplicate)	Perfluorooctane sulfonic acid (PFOS)	32%	0.08 µg/L	0.11 µg/L	No
	Perfluorohexane sulfonic acid (PFHxS)	36%	0.16 µg/L	0.23 µg/L	No
	PFAS (Sum of Total)	43%	0.31 µg/L	0.48 µg/L	No

	PFAS (Sum of Total) (WA DER List)	40%	0.28 µg/L	0.42 µg/L	No
	Sum of PFHxS and PFOS	34%	0.24 µg/L	0.34 µg/L	No
0967_SW020_241126 / 0967_QC102_241126 (Blind Duplicate)	Perfluoropropanesulfonic acid (PFPrS)	40%	0.03 µg/L	0.02 µg/L	Yes
	Perfluoroheptanoic acid (PFHpA)	40%	0.03 µg/L	0.02 µg/L	Yes
0967_SW020_241126 / 0967_QC202_241126 (Split Duplicate)	Perfluoroheptane sulfonic acid (PFHpS)	40%	0.06 µg/L	0.09 µg/L	Yes
0967_MW102_241128 / 0967_QC205_241128 (Split Duplicate)	Perfluoroheptane sulfonic acid (PFHpS)	33%	0.05 µg/L	0.07 µg/L	Yes
0967_SW018_241128 / 0967_QC103_241128 (Blind Duplicate)	Perfluoropentanoic acid (PFPeA)	40%	0.02 µg/L	0.05 µg/L	Yes
0967_SW018_241128 / 0967_QC203_241128 (Split Duplicate)	Perfluoroheptane sulfonic acid (PFHpS)	33%	0.05 µg/L	0.07 µg/L	Yes
	Perfluoropentanoic acid (PFPeA)	40%	0.02 µg/L	0.03 µg/L	Yes
0967_POT155_241210 / 0967_QC201_241210 (Split Duplicate)	Perfluorohexane sulfonic acid (PFHxS)	33%	0.05 µg/L	0.07 µg/L	Yes
	PFAS (Sum of Total)	82%	0.05 µg/L	0.12 µg/L	Yes
	PFAS (Sum of Total)(WA DER List)	75%	0.05 µg/L	0.11 µg/L	Yes
	Sum of PFHxS and PFOS	33%	0.05 µg/L	0.07 µg/L	Yes
0967_POT032_241210 / 0967_QC102_241210 (Blind Duplicate)	Perfluorohexane sulfonic acid (PFHxS)	40%	0.003 µg/L	<0.002 µg/L	Yes
	PFAS (Sum of Total)	40%	0.003 µg/L	<0.002 µg/L	Yes
	PFAS (Sum of Total)(WA DER List)	40%	0.003 µg/L	<0.002 µg/L	Yes
	Sum of PFHxS and PFOS	40%	0.003 µg/L	<0.002 µg/L	Yes
0967_POT009_241211 / 0967_QC103_241211 (Blind Duplicate)	Perfluorooctane sulfonic acid (PFOS)	40%	0.02 µg/L	0.03 µg/L	Yes
	Perfluorohexane sulfonic acid (PFHxS)	67%	0.02 µg/L	0.01 µg/L	Yes
0967_POT009_241211 / 0967_QC203_241211 (Split Duplicate)	Perfluorooctane sulfonic acid (PFOS)	67%	0.02 µg/L	0.04 µg/L	Yes
	PFAS (Sum of Total)(WA DER List)	40%	0.04 µg/L	0.06 µg/L	Yes
	Sum of PFHxS and PFOS	40%	0.04 µg/L	0.06 µg/L	Yes
0967_POT125_241211 / 0967_QC104_241211 (Blind Dupliucate	Perfluorobutane sulfonic acid (PFBS)	40%	0.04 µg/L	0.06 µg/L	Yes

The RPD values greater than the adopted threshold of 30% (where the primary and/or duplicate sample concentrations were greater than 10 times the applied LOR) are considered to have limited impact on the overall data quality given the low proportion of outliers relative to the wider dataset (i.e., 2.7%) and noting that in these cases, the reported concentrations were within the same order of magnitude.

Sediment RPDs

For the sediment monitoring, a total 21 RPDs were calculated, and five RPDs exceeded the adopted (conservative) 30% RPD acceptable limit, where the primary and/or duplicate sample concentrations were greater than ten times the laboratory LOR. Two RPDs were recorded to be higher than the 30% RPD limit, but the primary and/or duplicate sample concentrations were lower than ten times the laboratory LOR, and were therefore considered acceptable. 106 RPDs could not be calculated as both the primary and duplicate/split sample concentrations were less than the laboratory LOR. A summary of these exceedances is in Table 6 and full calculations are provided in Table QC.3 in Attachment 1.

Table 6 Summary of sediment RPD exceedances

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Acceptable?
0967_SD020_241126 / 0967_QC101_241126 (Blind Duplicate)	Perfluorooctane sulfonic acid (PFOS)	41%	0.0077 mg/kg	0.0117 mg/kg	No
	PFAS (Sum of Total)	43%	0.0085 mg/kg	0.0131 mg/kg	No
	PFAS (Sum of Total)(WA DER List)	45%	0.0083 mg/kg	0.0131 mg/kg	No
	Sum of PFHxS and PFOS	45%	0.0083 mg/kg	0.0131 mg/kg	No
	Perfluorohexane sulfonic acid (PFHxS)	80%	0.0006 mg/kg	0.0014 mg/kg	Yes
0967_SD020_241126 / 0967_QC201_241126 (Split Duplicate)	Perfluorooctane sulfonic acid (PFOS)	35%	0.0077 mg/kg	0.011 mg/kg	No
0967_SD018_241128 / 0967_QC104_241128 (Blind Duplicate)	Perfluorohexane sulfonic acid (PFHxS)	40	0.0002	0.0003	Yes

The RPD values greater than the adopted threshold of 30% (where the primary and/or duplicate sample concentrations were greater than 10 times the applied LOR) are considered to have limited impact on the overall data quality noting that unacceptable outliers were identified at only a single sediment monitoring location (SD020) and noting that the reported concentrations in the duplicate pairs were within the same order of magnitude.

B-2 Laboratory program

Laboratory QA/QC procedures and compliance during the investigation are summarised in Table 7, with exceptions detailed in the following subsections.

Table 7 Summary of laboratory QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information/data acceptable?
NATA accreditation	Analysis of CoPC performed under NATA accreditation or equivalent government endorsed provider of accreditation.	Yes	Yes
Holding times	Laboratory to complete sample extraction and analysis of CoPC within method specifications.	Yes, with exceptions	Yes, see Section B-2.2
Analytical methods	Sample analyses are to use appropriate methods for each CoPC with regard to Schedule B (3) of the *ASC NEPM* and in accordance with the laboratory's NATA accreditation.	Yes	Yes
Laboratory LORs	Laboratory LORs are below adopted assessment criteria.	Yes	Yes
Laboratory QC results	No method blank, laboratory duplicates, laboratory controls, matrix spike or surrogate spike recovery outliers were	Yes, with exceptions	Yes, see Section B-2.2

QA/QC element	Requirement	Requirement adhered to?	Information/data acceptable?
	identified. Sufficient quantities of laboratory QC analysis was undertaken.		

B-2.1 Laboratory quality control procedures

Laboratory QC samples incorporated in the analytical process included:

- **Laboratory blind duplicates**: A laboratory blind duplicate provides data on the analytical precision and reproducibility of the analytical result. The laboratory blind duplicate is created by subsampling from one of the primary samples submitted for analysis. Laboratory blind duplicates are analysed at a rate equivalent to one in ten per analytical batch, or one sample per batch if less than 10 samples are analysed in a batch.
- **LCS:** The LCS analysis of either a reference material or a control matrix fortified with analytes representative of the analyte class. The purpose of LCS is to monitor method precision and accuracy independent of the sample matrix. Typically, the percentage recovery of the LCS is compared to the dynamic recovery limit based on the statistical analysis of the processed LCS analysis.
- **Matrix spikes**: Matrix spike sample analysis is the analysis of one or more replicate portions of samples from the batch, after fortifying the additional portion(s) with known quantities of the analyte(s) of interest. The percentage recovery of target analyte(s) from matrix spike samples is used to determine the bias of the method in the specific sample matrix.
- **Surrogate spikes**: Surrogate spikes provide a means of checking that no gross errors have occurred during any stage of the analytical method leading to significant analyte loss. Surrogate recoveries are similar to the analyte of interest in terms of chemical composition, extractability, and chromatographic conditions (retention time), but which are not normally found in environmental samples. Surrogate compounds are spiked into blanks, standards and samples submitted for organic analyses by gas-chromatographic techniques prior to sample extraction.
- **Method blanks**: Method or analysis blank sample analysis is the analysis of a sample that is as free as possible of the analytes of interest but has been prepared the same as the samples under investigation. The analysis is to ascertain if laboratory reagents, glassware and other laboratory consumables contribute to the observed concentration of analytes in the process batch. If below the maximum acceptable method blank (20% of the practical quantisation limit), the contribution is subtracted from the gross analytical signal for each analysis before calculating the sample analyte concentration. The method blank should return analyte concentrations as 'not detected'.

B-2.2 Laboratory quality control results

Laboratory quality control results were compared against criteria set by ALS Environmental and Eurofins, which are largely based on the *ASC NEPM* and US EPA (2006) methods. The individual testing laboratories conducted an assessment of the laboratory QC program internally; however, the results were also independently reviewed and assessed by GHD. All laboratory quality control measures were within the adopted acceptance criteria with the exception of those described in the subsections below.

The exceptions were limited and comprised a very small proportion of the large number of quality control measures completed for the investigation. Based on this, the exceptions described in the subsections below are not considered to significantly influence data quality.

B-2.3 QC sample frequency – outliers

All laboratory QC samples were tested with the expected frequency, except for those summarised in Table 8. These outliers only represent a small portion of the internal lab QC program conducted. Therefore, these minor non-compliances reported for this investigation are not considered to have materially affected the conclusions of this report.

Table 8 QC sample frequency – outliers

Lab Report	QC sample type	Method	Actual rate/ expected rate (%)
EP2418001	Laboratory Duplicates	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	8.16/10.00
	Matrix Spikes	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	4.08/5.00
EP2418361	Laboratory Duplicates	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	6.25/10.00
	Matrix Spikes	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	2.08/5.00
EP2418818	Laboratory Duplicates	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	6.67/10.00
	Matrix Spikes	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	3.45/5.00
EP2501437	Laboratory Duplicates	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0.00/10.00
	Matrix Spikes	Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0.00/5.00

B-2.3.1 Matrix spike - outliers

All matrix spikes were of an acceptable recovery except for those summarised in Table 9. These outliers only represent a small portion of the internal lab QC program conducted. Therefore, these minor non-compliances are not considered to have materially affected the conclusions of this report.

Table 9 Matrix spike outliers

Lab Report	Sample ID	Analyte	Comment
EP2418361	0967_MW205_ 241205	Chloride	MS recovery not determined, background level greater than or equal to 4x spike level.
	Anonymous	Perfluoropentanoic acid (PFPeA)	MS recovery not determined, background level greater than or equal to 4x spike level.
	Anonymous	Perfluorohexanoic acid (PFHxA)	MS recovery not determined, background level greater than or equal to 4x spike level.
	Anonymous	Perfluoroheptanoic acid (PFHpA)	MS recovery not determined, background level greater than or equal to 4x spike level.
	Anonymous	Perfluorooctanoic acid (PFOA)	MS recovery not determined, background level greater than or equal to 4x spike level.
	Anonymous	Perfluorononanoic acid (PFNA)	MS recovery not determined, background level greater than or equal to 4x spike level.
EP2418818	0967_POT136_241210	Perfluortridecanoic acid (PFTrDA)	Recovery greater than upper data quality objective.
EP2501437	Anonymous	Sulfate as SO4 - Turbidimetric	MS recovery not determined, background level greater than or equal to 4x spike level.
	Anonymous	Chloride	MS recovery not determined, background level greater than or equal to 4x spike level.

B-2.3.2 Laboratory control spike – outliers

All laboratory control spike outliers were of an acceptable recovery except for the one summarised in Table 10. This outlier only represents a small portion of the internal lab QC program conducted. Therefore, this minor non-compliance is not considered to have materially affected the conclusions of the report.

Table 10 Laboratory control spike outliers

Lab Report	Sample ID	Analyte	Data	Limits	Comment
EP2418001	QC-6236792-002 (sediment)	10:2 Fluorotelomer sulfonic acid	128%	54.8-124%	Recovery greater than upper control limit.
	QC-6231336-002 (water)	10:2 Fluorotelomer sulfonic acid	140%	64.2-133%	Recovery greater than upper control limit.
EP2418361	QC-6257408-002 (sediment)	10:2 Fluorotelomer sulfonic acid	157%	54.8-124%	Recovery greater than upper control limit.

B-2.3.3 Surrogate recovery – outliers

All laboratory surrogates were an acceptable recovery.

B-2.3.4 Duplicate – outliers

Samples were analysed and received acceptable RPDs.

B-2.3.5 Holding time – outliers

Samples were analysed within appropriate holding times, excluding those outlines in Table 11. The holding time breaches are not considered to significantly impact the overall data quality as they do not relate to analytes that are critical to the project objectives (i.e., they are non-PFAS analytes).

Table 11 Holding time – outliers

Lab Report	Sample ID	Analyte	Days overdue
EP2418001	0967_SW020_241126	Dissolved Major Cations	1
	0967_SW034_241126		
	0967_SW044_241126		
	0967_QC102_241126		
EP2418361	0967_SW021_ 241202	Dissolved Major Cations	1
	0967_SW026_ 241202		
	0967_SW042_ 241202		
	0967_SW047_ 241202		
	0967_SW048_ 241202		
	0967_SW049_ 241202		
	0967_SW050_ 241202		
	0967_SW052_ 241202		
	0967_SW058_ 241202		
	0967_SW059_ 241202		
	0967_SW060_ 241202		
EP2501437	0967_POT052_250128	Dissolved Major Cations	2
	0967_POT147_250128		

B-3 Data quality indicator evaluation

An evaluation of the DQIs set for this assessment was undertaken subsequent to field works and laboratory analysis, this evaluation is presented in Table 12.

Table 12 Data quality indicator evaluation

DQI	Evaluation Criteria	Acceptable?
Completeness	All locations that were proposed to be sampled were sampled where possible. Samples were analysed according to the OMP (GHD 2019).	Yes
	All field documentation is complete and correct, including chain of custody documentation for samples.	Yes
	Field forms and documentation capture all relevant important information.	Yes
	Samples were analysed within appropriate holding times.	Yes
	Appropriate laboratory limits of reporting for comparison to relevant assessment criteria.	Yes
Comparability	Standardised operating procedure for groundwater sampling was adhered to and is in line with relevant guidelines.	Yes
	Field staff were experienced in the sampling of groundwater and were appropriately trained.	Yes
	Consistent laboratory use with consistent analytical methods used.	Yes
	Climatic conditions consistent and considered representative of region.	Yes
Representativeness	Samples were collected in a uniform and consistent manner, therefore representative of the media in the field.	Yes
Precision	Sufficient quantities of field blind and split duplicates were collected to enable comparison within and between laboratories.	Yes
	Sufficient quantities of internal laboratory duplicates were analysed to enable comparison within laboratories.	Yes
	Relative percentage difference calculations show that a large majority of duplicate sample concentrations are within defined difference limits.	Yes
	Field equipment was calibrated by equipment supplier (Appendix G6).	Yes
Accuracy	Sufficient quantities of field blanks, rinsate blanks and transport blanks were collected and analysed, with no results indicating cross contamination.	Yes
	Sufficient quantities of internal laboratory method blanks, surrogate spikes and laboratory control samples were analysed to determine laboratory accuracy, with the large majority of samples within defined limits.	Yes

Based on the results of the evaluation of the QA/QC data described in the previous sections, the reported QA/QC non-compliances are not considered likely to significantly influence the reliability of the analytical data. It is further considered that:

- The field and laboratory quality assurance measures implemented provide a reasonable level of confidence that the data collected and reported is appropriately complete, comparable and representative.
- The field and laboratory quality control measures implemented provide a reasonable level of confidence that the data collected and reported is appropriately accurate and precise.
- The overall review of the QA/QC results indicates that the data collected for the investigation is of acceptable quality upon which to provide an adequate and reliable assessment of the property.

Attachment 1 – QA/QC Data Tables

Table QC.1 Blank Results

Table QC.2 Relative Percentage Differences - Water

Table QC.3 Relative Percentage Differences - Sediment

	Sample Type		Field Blank								Trip Blank						Rinsate	
	Field ID		0089_QC401 _241212	0089_QC402 _241213	0089_QC403 _241216	0089_QC404 _241217	0089_QC405 _241218	0089_QC406 _241219	0089_QC407 _250114	0089_QC408 _250115	0089_QC501 _241219	0089_QC502 _241219	0089_QC503 _241219	0089_QC504 _241219	0089_QC505 _241219	0089_QC506 _250114	0089_QC301 _241206	0089_QC302 _241209
			12 Dec 2024	13 Dec 2024	16 Dec 2024	19 Dec 2024	18 Dec 2024	19 Dec 2024	14 Jan 2025	15 Jan 2025	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	14 Jan 2025	06 Dec 2024	09 Dec 2024
	Lab Report Number		EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419204	EP2500597	EP2500597	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2500597	EP2419184	EP2419184
Analyte	**Unit**	**LOR**																
PFAS - Perfluoroalkyl Sulfonic Acids																		
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																		
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																		
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																		
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																		
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

	Sample Type		Rinsate														
	Field ID		0089_QC303_241209	0089_QC304_241210	0089_QC305_241210	0089_QC306_241211	0089_QC307_241211	0089_QC308_241212	0089_QC309_241213	0089_QC310_241216	0089_QC311_241217	0089_QC312_241217	0089_QC313_241217	0089_QC314_241218	0089_QC315_241218	0089_QC316_241219	0089_QC317_250114	0089_QC318_250115
			09 Dec 2024	10 Dec 2024	10 Dec 2024	11 Dec 2024	11 Dec 2024	12 Dec 2024	13 Dec 2024	16 Dec 2024	19 Dec 2024	17 Dec 2024	17 Dec 2024	18 Dec 2024	18 Dec 2024	19 Dec 2024	14 Jan 2025	15 Jan 2025
	Lab Report Number		EP2419184	EP2419184	EP2419184	EP2419184	EP2419184	EP2419184	EP2419184	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419204	EP2500597	EP2500597
Analyte	**Unit**	**LOR**																
PFAS - Perfluoroalkyl Sulfonic Acids																		
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																		
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																		
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																		
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																		
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

	Location Code		MW195D	MW195D		MW195D	MW195D		MW239	MW239		MW239	MW239		MW010	MW010		MW010	MW010	
	Date		12 Dec 2024	12 Dec 2024		12 Dec 2024	12 Dec 2024		13 Dec 2024	13 Dec 2024		13 Dec 2024	13 Dec 2024		13 Dec 2024	13 Dec 2024		13 Dec 2024	13 Dec 2024	
	Field ID		0089_MW195D_241212	0089_QC101_241212	RPD %	0089_MW195D_241212	0089_QC201_241212	RPD %	0089_MW239_241213	0089_QC102_241213	RPD %	0089_MW239_241213	0089_QC202_241213	RPD %	0089_MW010_241213	0089_QC103_241213	RPD %	0089_MW010_241213	0089_QC203_241213	RPD %
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.03	0.03	0	0.03	0.03[#1]	0	0.05	0.06	18	0.05	0.06[#1]	18
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	0.03	0.03	0	0.03	<0.1	0	0.05	0.06	18	0.05	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	0.03	0.03	0	0.03	<0.05	0	0.05	0.06	18	0.05	0.07	**33**
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.03	0.03	0	0.03	0.03	0	0.05	0.06	18	0.05	0.06	18
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.03	-	-	-	-	-	0.06	-

Comments

Yellow highlighting indicates a RPD value greater than the acceptance criterion of 30%

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Location Code			MW268	MW268		MW268	MW268		MW215	MW215		MW215	MW215		MW123	MW123		MW123	MW123	
Date			13 Dec 2024	13 Dec 2024		13 Dec 2024	13 Dec 2024		16 Dec 2024	16 Dec 2024		16 Dec 2024	16 Dec 2024		16 Dec 2024	16 Dec 2024		16 Dec 2024	16 Dec 2024	
Field ID			0089_MW268_241213	0089_QC104_241213	RPD %	0089_MW268_241213	0089_QC204_241213	RPD %	0089_MW215_241216	0089_QC105_241216	RPD %	0089_MW215_241216	0089_QC205_241216	RPD %	0089_MW123_241216	0089_QC106_241216	RPD %	0089_MW123_241216	0089_QC206_241216	RPD %
Sample Type			Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
Lab Report Number			EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728	
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.30	0.30	0	0.30	0.25	18	0.04	0.04	0	0.04	0.03	29	0.06	0.06	0	0.06	0.06	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.04	<0.01	120	0.04	0.01[#1]	120	0.02	0.02	0	0.02	0.02[#1]	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	0.12	0.11	9	0.12	0.11	9	<0.02	<0.02	0	<0.02	0.01	0	<0.02	<0.02	0	<0.02	0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.26	0.27	4	0.26	0.21[#1]	21	0.06	0.07	15	0.06	0.05[#1]	18	0.04	0.04	0	0.04	0.04[#1]	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.82	0.72	13	0.82	0.69[#1]	17	0.52	0.52	0	0.52	0.47[#1]	10	0.59	0.47	23	0.59	0.73[#1]	21
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	0.03	0.03	0	0.03	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.22	0.21	5	0.22	0.17	26	0.09	0.10	11	0.09	0.09	0	0.09	0.07	25	0.09	0.08	12
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.01	0.01	0	0.01	0.01[#1]	0	0.01	0.01	0	0.01	0.02[#1]	67
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	0.04	0.03	29	0.04	0.03	29	0.03	0.03	0	0.03	0.03	0	<0.02	<0.02	0	<0.02	0.02	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01	1.76	1.64	7	1.76	1.46	19	0.82	0.80	2	0.82	0.7	16	0.81	0.67	19	0.81	0.98	19
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	1.38	1.26	9	1.38	1.14	19	0.76	0.73	4	0.76	0.64	17	0.77	0.63	20	0.77	0.93	19
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.02	-	-	-	-	-	0.04	-
Sum of PFHxS and PFOS	µg/L	0.01	0.82	0.72	13	0.82	0.69	17	0.56	0.52	7	0.56	0.48	15	0.61	0.49	22	0.61	0.75	21
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.69	-	-	-	-	-	0.49	-	-	-	-	-	0.77	-

	Location Code		MW289	MW289		MW289	MW289		SW370	SW370		SW370	SW370		PW345	PW345		PW345	PW345	
	Date		16 Dec 2024	16 Dec 2024		16 Dec 2024	16 Dec 2024		17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024	
	Field ID		0089_MW289_241216	0089_QC107_241216	RPD %	0089_MW289_241216	0089_QC207_241216	RPD %	0089_SW370_241217	0089_QC111_241217	RPD %	0089_SW370_241217	0089_QC211_241217	RPD %	0089_PW345_241217	0089_QC113_241217	RPD %	0089_PW345_241217	0089_QC213_241217	RPD %
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.10	0.09	11	0.10	0.09	11	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	0.02[#1]	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	1.35	1.24	8	1.35	1.2[#1]	12	0.01	0.02	67	0.01	<0.01	0	0.04	0.07	55	0.04	0.03[#1]	29
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	0.02	0.02	0	0.02	0.02	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.08	0.08	0	0.08	0.07[#1]	13	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.48	0.45	6	0.48	0.41[#1]	16	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.11	0.10	10	0.11	0.09	20	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.03	0.03	0	0.03	0.03[#1]	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	0.03	0.03	0	0.03	0.03	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01	2.20	2.04	8	2.20	1.96	12	0.01	0.02	67	0.01	<0.1	0	0.04	0.07	55	0.04	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	2.10	1.94	8	2.10	1.85	13	0.01	0.02	67	0.01	<0.05	0	0.04	0.07	55	0.04	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	1.23	-	-	-	-	-	<0.01	-	-	-	-	-	0.03	-
Sum of PFHxS and PFOS	µg/L	0.01	1.83	1.69	8	1.83	1.61	13	0.01	0.02	67	0.01	<0.01	0	0.04	0.07	55	0.04	0.03	29
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	1.64	-	-	-	-	-	<0.01	-	-	-	-	-	0.03	-

	Location Code		PW346	PW346		PW346	PW346		SW134	SW134		SW134	SW134		PW341	PW341		PW341	PW341	
	Date		17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024		18 Dec 2024	18 Dec 2024		18 Dec 2024	18 Dec 2024		18 Dec 2024	18 Dec 2024		18 Dec 2024	18 Dec 2024	
	Field ID		0089_PW346_241217	0089_QC114_241217	RPD %	0089_PW346_241217	0089_QC214_241217	RPD %	0089_SW134_241218	0089_QC120_241218	RPD %	0089_SW134_241218	0089_QC220_241218	RPD %	0089_PW341_241218	0089_QC121_241218	RPD %	0089_PW341_241218	0089_QC221_241218	RPD %
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.49	0.40	20	0.49	0.47[#1]	4	<0.01	<0.01	0	<0.01	<0.01	0	0.02	0.02	0	0.02	<0.01	67
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	0.01[#1]	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.18	0.20	11	0.18	0.19[#1]	5	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.17	0.18	6	0.17	0.17	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	0.16	0.19	17	0.16	0.15	6	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01	1.00	0.98	2	1.00	0.99	1	<0.01	<0.01	0	<0.01	<0.1	0	0.02	0.02	0	0.02	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	1.00	0.98	2	1.00	0.98	2	<0.01	<0.01	0	<0.01	<0.05	0	0.02	0.02	0	0.02	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.47	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	0.67	0.60	11	0.67	0.66	2	<0.01	<0.01	0	<0.01	<0.01	0	0.02	0.02	0	0.02	<0.01	67
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.66	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-

	Location Code		SW317	SW317		SW317	SW317		PW378	PW378		PW378	PW378		PW411	PW411		PW411	PW411	
	Date		19 Dec 2024	19 Dec 2024		19 Dec 2024	17 Dec 2024		19 Dec 2024	19 Dec 2024		19 Dec 2024	17 Dec 2024		19 Dec 2024	19 Dec 2024		19 Dec 2024	18 Dec 2024	
	Field ID		0089_SW317_241217	0089_QC108_241217	RPD %	0089_SW317_241217	0089_QC208_241217	RPD %	0089_PW378_241217	0089_QC110_241217	RPD %	0089_PW378_241217	0089_QC210_241217	RPD %	0089_PW411_241218	0089_QC117_241218	RPD %	0089_PW411_241218	0089_QC217_241218	RPD %
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-

		Location Code	SW412	SW412		SW412	SW412		SW150	SW150		SW150	SW150	
		Date	19 Dec 2024	19 Dec 2024		19 Dec 2024	18 Dec 2024		14 Jan 2025	14 Jan 2025		14 Jan 2025	14 Jan 2025	
		Field ID	0089_SW412_241218	0089_QC116_241218	RPD %	0089_SW412_241218	0089_QC216_241218	RPD %	0089_SW150_250114	0089_QC122_250114	RPD %	0089_SW150_250114	0089_QC222_250114	RPD %
		Sample Type	Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
		Lab Report Number	EP2419185	EP2419185		EP2419185	1173728		EP2500597	EP2500597		EP2500597	1178587	
		Matrix Type	Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-

			Location Code	PW331	PW331		PW331	PW331		MW147	MW147		MW147	MW147	
			Date	14 Jan 2025	14 Jan 2025		14 Jan 2025	14 Jan 2025		15 Jan 2025	15 Jan 2025		15 Jan 2025	15 Jan 2025	
			Field ID	0089_PW331_250114	0089_QC124_250114	RPD %	0089_PW331_250114	0089_QC224_250114	RPD %	0089_MW147_250115	0089_QC125_250115	RPD %	0089_MW147_250115	0089_QC225_250114	RPD %
			Sample Type	Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
			Lab Report Number	EP2500597	EP2500597		EP2500597	1178587		EP2500597	EP2500597		EP2500597	1178587	
			Matrix Type	Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**EQL**													
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.08	0.09	12	0.08	0.09[#1]	12
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.07	0.07	0	0.07	0.09	25
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	0.15	0.16	6	0.15	0.18	18
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	0.15	0.16	6	0.15	0.18	18
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.08	0.09	12	0.08	0.09	12
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.09	-

		Location Code	SD345	SD345	RPD %	SD345	SD345	RPD %	SD346	SD346	RPD %	SD346	SD346	RPD %	SD341	SD341	RPD %
		Date	17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024		17 Dec 2024	17 Dec 2024		18 Dec 2024	18 Dec 2024	
		Field ID	0089_SD345_241217	0089_QC112_241217		0089_SD345_241217	0089_QC212_241217		0089_SD346_241217	0089_QC115_241217		0089_SD346_241217	0089_QC215_241217		0089_SD341_241218	0089_QC219_241218	
		Sample Type	Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Split Duplicate	
		Lab Report Number	EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2419185	1173728	
		Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Analytes	**Unit**	**LOR**															
Inorganics																	
% Moisture_	%	1	-	-	-	-	31	-	-	-	-	-	36	-	-	32	-
Moisture (%)	%	0.1	34.1	35.8	5	34.1	-	-	36.7	36.2	1	36.7	-	-	33.8	-	-
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	0.0010	**133**	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
PFAS - Sums																	
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	0.0012	**143**	<0.0002	<0.05	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	0.0012	**143**	<0.0002	<0.01	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	0.0012	**143**	<0.0002	<0.005	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	<0.005	-

Yellow highlighting indicates a RPD value greater than the acceptance criterion of 30%

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

		Location Code	SD378	SD378		SD378	SD378		SD411	SD411		SD411	SD411		SD358	SD358		SD358	SD358	
		Date	19 Dec 2024	19 Dec 2024		19 Dec 2024	17 Dec 2024		19 Dec 2024	19 Dec 2024		19 Dec 2024	18 Dec 2024		14 Jan 2025	14 Jan 2025		14 Jan 2025	14 Jan 2025	
		Field ID	0089_SD378_241217	0089_QC109_241217	RPD %	0089_SD378_241217	0089_QC209_241217	RPD %	0089_SD411_241218	0089_QC118_241218	RPD %	0089_SD411_241218	0089_QC218_241218	RPD %	0089_SD358_250114-0.10	0089_QC123_250114-0.10	RPD %	0089_SD358_250114-0.10	0089_QC223_250114	RPD %
		Sample Type	Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
		Lab Report Number	EP2419185	EP2419185		EP2419185	1173728		EP2419185	EP2419185		EP2419185	1173728		EP2500597	EP2500597		EP2500597	1178587	
		Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Analytes	**Unit**	**LOR**																		
Inorganics																				
% Moisture_	%	1	-	-	-	-	14	-	-	-	-	-	21	-	-	-	-	-	27	-
Moisture (%)	%	0.1	19.3	13.9	**33**	19.3	-	-	21.6	26.7	21	21.6	-	-	29.8	25.5	16	29.8	-	-
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
PFAS - Sums																				
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-

Yellow highlighting indicates a RPD value greater than the acceptance criterion of 30%

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Appendix C

Results tables

			Well data			Field data			Field Parameters						
			TOC Elevation	Groundwater Elevation	Screen Interval	Total Well Depth	Standing Water Level	Sample Depth	pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			m AHD		m BGL	m bTOC			pH units	µS/cm	mg/L	mV	°C	mg/L	
Site ID	Location Code	Date													Sample Comment
0089	MW010	13 Dec 2024	4.17	0.142	Unknown	8.46	4.025	7.5	7.26	1,310	2.46	-80.6	25.5	850	*clear, colourless, no sheen, no odour, no sediment*
0089	MW109	16 Dec 2024	3.787	0.244	2.5-5.5	5.842	4.202	5.8	7.13	790	1.12	-44.5	21.7	514	*clear, colourless, no sheen, organic odour, moderate sediment*
0089	MW112	16 Dec 2024	4.03	0.422	3-6	5.864	3.551	4.5	7.36	580	0.86	-29.3	23.1	377.4	*pale yellow, clear, no sheen, no odour, no sediment*
0089	MW120	16 Dec 2024	3.843	0.269	2.5-5.5	5.76	4.14	5.7	7.43	660	1.49	-30.6	21.9	429.3	*pale grey, cloudy, no sheen, no odour, no sediment*
0089	MW121	16 Dec 2024	3.7	0.28	2.7-5.7	4.09	3.42	3.8	7.55	508	5.16	-32	21.9	-	*light grey, cloudy, no sheen, no odour, significant sediment load.*
0089	MW123	16 Dec 2024	5.933	0.255	4.5-8	7.78	6.365	7.7	7.3	1,388	1.14	-30	24.7	898	*clear, colourless, no sheen, no odour, no sediment*
0089	MW124	18 Dec 2024	1.151	-0.001	0.75-4	4.19	1.9	2.9	7.22	39,769	2.99	-93.5	20.9	25,859	*clear, colourless, no sheen, no odour, no sediment*
0089	MW125	18 Dec 2024	1.213	0.007	0.9-3.9	4.32	1.875	2.9	7.19	39,706	2.4	-150.2	21.6	25,798	*clear, colourless, no sheen, no odour, no sediment*
0089	MW126	18 Dec 2024	1.264	0.013	0.9-3.9	4.23	1.935	3	7.06	33,089	4.3	-142.4	21.9	21,513	*clear, colourless, no sheen, hydrocarbon odour, no sediment*
0089	MW127	18 Dec 2024	1.06	0.101	0.9-3.9	4.2	1.67	2.7	7.09	35,222	1.88	-88.1	22.7	22,909	*cloudy, colourless, no sheen, no odour, no sediment*
0089	MW128	16 Dec 2024	4.003	0.187	2.5-5.5	5.55	4.35	5.5	7.35	484	1.48	-43.8	21.6	316.7	*clear, colourless, no sheen, organic odour, no sediment*
0089	MW139	15 Jan 2025	2.32	0.272	2-5	4.79	2.001	4	7.49	4,580	0.8	-72.9	22.7	2,976	*clear, colourless, no odour, no sheen, some ant eggs in the sleeve*
0089	MW141	15 Jan 2025	2.7	-0.074	2-5	5.55	3.099	5	7	26,605	0.56	-89.8	22.7	17,297	*clear, colourless, no odour, no sheen*
0089	MW142	15 Jan 2025	1.901	0.224	0.25-4	3.745	2.349	3.2	7.32	23,832	1.83	-72.6	24.7	15,489	*clear, colourless, no odour, no sheen*
0089	MW147	15 Jan 2025	2.95	0.69	2-5	5.146	2.733	4.6	7.1	15,148	1.4	-82.6	24.6	9,850	*clear, colourless, no odour, no sheen, roots present*
0089	MW149	15 Jan 2025	1.725	-0.347	1-4	4.389	2.65	4	7.25	16,982	0.86	-73.2	25.7	1,697.1	*clear, colourless, no odour, no sheen*
0089	MW158	12 Dec 2024	14.01	0.262	Unknown	15.58	14.279	15.5	7.29	14,045	2.08	-25.9	23.6	9,135	*clear, colourless, no sheen, no odour, no sediment*
0089	MW161	12 Dec 2024	16.63	0.385	Unknown	18.17	16.84	17.2	7.32	3,095	2.95	-23.4	23.7	2,013	*pale brown, cloudy, no sheen, no odour, minor sediment*
0089	MW166	12 Dec 2024	11.25	0.49	10-13	12.37	11.4	12.3	7.18	4,506	3.74	-26	22.4	2,929	*pale brown, cloudy, no sheen, no odour, no sediment*
0089	MW171	12 Dec 2024	28.87	0.368	28.5-31.5	31.8	28.87	29.5	7.19	6,504	1.39	-27.8	23.8	4,236	*clear, colourless, no sheen, no odour, minor sediment*
0089	MW173	12 Dec 2024	9.63	0.395	Unknown	11.32	9.685	10.3	7.03	4,403	0.77	-36.9	27	2,869	*clear, colourless, no sheen, no odour, no sediment load*
0089	MW193	12 Dec 2024	11.45	0.471	10-13.5	12.5	11.389	12.5	6.97	1,905	1.91	-30.3	24.5	1,239	*colourless, cloudy, no sheen, no odour, no sediment*
0089	MW195D	12 Dec 2024	4.06	0.283	10-13	12.37	4.08	11	7.2	24,365	0.57	-26	27.3	15,686	*colourless, cloudy, no sheen, no odour, no sediment*
0089	MW196	12 Dec 2024	12.18	0.214	Unknown	13.6	12.536	13.6	7.43	599	4.01	-14.9	26.2	389.6	*pale brown, clear, no sheen, no odour, no sediment*
0089	MW199	12 Dec 2024	11.14	0.24	Unknown	17.435	11.56	16.5	7.29	20,143	0.24	-263.4	25.6	13,102	*pale yellow, clear, no sheen, hydrocarbon odour, no sediment*
0089	MW200	18 Dec 2024	1.54	0.025	Unknown	2.67	2.045	2.7	7.52	7,556	5.19	-100.6	22.7	4,907	*clear, colourless, no sheen, hydrocarbon odour, no sediment*
0089	MW203	13 Dec 2024	10.31	0.284	Unknown	12.82	10.571	11.5	7.18	893	2.17	-57	23.4	580	*clear, colourless, no sheen, no odour, no sediment*
0089	MW214	16 Dec 2024	7.459	0.225	5.5-9	9.09	7.85	9	7.05	2,312	-	-55.6	24.4	1,505	*clear, colourless, no sheen, no odour, no sediment*
0089	MW215	16 Dec 2024	3.151	0.269	1.5-4.5	4.84	3.525	4.8	7.21	1,360	0.71	-15.6	21	884	*clear, colourless, no sheen, organic odour, no sediment*
0089	MW216	16 Dec 2024	7.578	0.379	6-9	9.43	7.95	9.4	7.36	2,562	2.43	-14.4	19.8	1,666	*cloudy, colourless, no sheen, no odour, moderate sediment*
0089	MW217	16 Dec 2024	8.225	0.382	6.5-9.5	8.996	8.465	9	7.42	925	5.69	-13.4	21.5	602	*cloudy, colourless, no sheen, no odour, no sediment*
0089	MW220	16 Dec 2024	6.55	0.294	0	8.535	6.76	8.5	7.21	735	3.5	-9	20	477.8	*cloudy, orange, no sheen, organic odour, moderate sediment*
0089	MW224	16 Dec 2024	12.716	0.342	11.25-14.25	14.42	13.03	14.4	7.64	1,182	3.06	-9.3	19.9	764	*cloudy, colourless, no sheen, no odour, no sediment*
0089	MW225	16 Dec 2024	3.389	0.101	2-5	5.42	3.965	5.4	7.14	2,915	1.4	-54.4	20.3	1,895	*clear, colourless, no sheen, no odour, no sediment*
0089	MW226	16 Dec 2024	1.06	0.054	0.75-3.8	4.02	1.695	2.7	7.08	41,372	1.62	-35.3	22.6	26,894	*pale yellow, clear, no sheen, no odour, no sediment*
0089	MW227	18 Dec 2024	2.33	0.056	1.25-4.2	4.11	2.905	4.1	7.48	2,919	2.74	-55.6	20.8	1,900	*clear, colourless, no sheen, no odour, no sediment*
0089	MW228	18 Dec 2024	1.59	0.045	0.75-3.75	4.06	2.185	3.1	7.25	8,918	1.72	-50.6	21.3	5,800	*pale yellow, clear, no sheen, no odour, no sediment*
0089	MW233	13 Dec 2024	3.14	0.395	Unknown	4.265	3.31	4.265	7.71	451.3	3.3	-84.8	19.7	293.4	*pale yellow, clear, no sheen, no odour, no sediment*
0089	MW236	13 Dec 2024	3.98	0.481	Unknown	5.07	4.161	5	7.42	705	2.78	-37.7	23.4	458.7	*light brown, clear, no odour, no sheen, moderate sediment*
0089	MW238	13 Dec 2024	4.58	0.377	Unknown	7.03	4.45	5.5	7.26	737	1.65	-35.6	23.2	479.6	*clear, colourless, no sheen, no odour, no sediment*
0089	MW239	13 Dec 2024	3.94	0.367	Unknown	5.115	3.663	5.1	7.53	615	1.8	-32.8	24.4	400	*orange, clear, no sheen, no odour, no sediment*
0089	MW240	13 Dec 2024	4.51	0.373	Unknown	6.8	4.11	5.1	7.35	706	2.29	-37.9	23.5	458.6	*clear, colourless, no sheen, no odour, minor sediment*
0089	MW242	13 Dec 2024	3.58	0.334	Unknown	4.263	3.205	4.25	7.62	461.4	1.76	-41.3	24.3	300.2	*brown , cloudy, no sheen, no odour, moderate sediment*
0089	MW243	13 Dec 2024	4.91	0.352	Unknown	7	4.54	5.5	7.36	913	1.67	-24.4	23	594	*clear, colourless, no sheen, no odour, minor sediment*
0089	MW245	13 Dec 2024	3.85	0.338	Unknown	6.33	4.213	5.2	7.31	433.7	2.27	-31.1	21.2	282.6	*pale yellow, clear, no sheen, hydrocarbon odour, no sediment*
0089	MW249	13 Dec 2024	4.571	0.252	3.5-6.5	6.25	4.975	6.25	7.14	1,277	1.74	-50.8	24.2	830	*grey, cloudy, no sheen, no odour, moderate sediment*
0089	MW255	13 Dec 2024	3.937	0.426	3-6	6.325	4.183	5.6	7.31	859	2.35	-65.8	22.3	559	*cloudy, colourless, no sheen, no odour, no sediment*
0089	MW256	13 Dec 2024	3.835	0.431	3-6	5.68	3.409	4.4	6.73	1,468	2.14	-76.8	22.1	955	*clear, colourless, no sheen, no odour, no sediment*
0089	MW257	13 Dec 2024	3.806	0.386	2.7-5.7	5.3	3.42	4.8	7.71	490	4.6	-59.7	23.1	321.3	*clear, colourless, no sheen, no odour, no sediment*
0089	MW258	13 Dec 2024	4.043	0.373	3-6	5.38	3.67	4.3	7.13	1,230	2.04	-62.6	23.4	800	*cloudy, colourless, no sheen, no odour, minor sediment*
0089	MW259	13 Dec 2024	3.8	0.368	2.5-5.5	5.422	3.432	4.4	7.26	526	1.75	-60.2	21.3	342.2	*clear, colourless, no sheen, no odour, minor sediment*
0089	MW268	13 Dec 2024	4.056	0.121	2.5-5.5	5.765	3.935	5	7.21	5,386	2.09	-59.4	24.9	3,502	*clear, colourless, no sheen, no odour, no sediment*
0089	MW269	13 Dec 2024	4.153	0.038	2.5-5.5	5.876	4.115	4.8	7.34	1,906	1.77	-72	23.4	1,239	*colourless, cloudy, no sheen, no odour, no sediment*
0089	MW282	16 Dec 2024	5.78	0.23	4.5-7.5	11.7	5.55	6.5	7.5	20,287	1.64	-2.1	20.7	13,187	*clear, colourless, no sheen, no odour, no sediment*
0089	MW288	17 Dec 2024	4.003	0.093	2,25-5.25	5.88	3.91	4.9	7.27	776	1.52	-30.3	20.9	505	*cloudy, colourless, no sheen, no odour, nonsediment*
0089	MW289	16 Dec 2024	4.495	0.314	3.25-6.25	6.122	4.181	5.1	7.26	759	1.1	-53.1	22.9	493	*pale grey, cloudy, no sheen, no odour, moderate sediment*

			Well data			Field data			Field Parameters						
			TOC Elevation	Groundwater Elevation	Screen Interval	Total Well Depth	Standing Water Level	Sample Depth	pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			m AHD		m BGL	m bTOC			pH units	µS/cm	mg/L	mV	°C	mg/L	
Site ID	**Location Code**	**Date**													**Sample Comment**
0089	MW010	13 Dec 2024	4.17	0.142	Unknown	8.46	4.025	7.5	7.26	1,310	2.46	-80.6	25.5	850	*clear, colourless, no sheen, no odour, no sediment*
0089	MW468	18 Dec 2024			1-1.2	2.96	2.37	3	7.27	21,031	3.72	-106.5	21.6	13,696	*pale brown , clear, no sheenn, no odour, minor sediment*
0089	MW496	13 Dec 2024	5.092	0.243	3.5-8	8.185	4.849	5.9	7.34	1,352	1.1	-147	23	878	*grey, clear, no sheen, no odour, moderate sediment*
0089	MW500	16 Dec 2024	3.692	0.268	2.0-6.5	5.88	3.424	4.4	7.27	793	2.01	-42.9	22.6	516	*pale yellow, cloudy, no sheen, no odour, minor sediment*
0089	MW516	13 Dec 2024	6.37	0.248	4.5-7.5	7.905	6.122	7.1	6.98	1,174	2.01	-51.7	24	763	*pale orange, cloudy, no sheen, mild hydrocarbon odour, minor sediment*
0089	MW553	13 Dec 2024	3.801	0.218	3-6	5.71	3.583	5.71	7.18	1,042	1.17	-71.3	23.3	678	*clear, colourless, no sheen, mild hydrocarbon odour, no sediment, grey sediment at base of hydrasleeve*

			Field Parameters					
			pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)
			pH units	µS/cm	mg/L	mV	°C	mg/L
Site ID	**Location Code**	**Date**						
0089	SW130	18 Dec 2024	8.08	54,987	3.98	-90.2	26.4	1
0089	SW132	18 Dec 2024	7.99	54,748	3.93	-136.5	26.6	36,692
0089	SW134	18 Dec 2024	7.93	55,296	3.95	-105.7	28.5	36,008
0089	SW150	14 Jan 2025	8.05	57,186	4.77	-75.8	30.7	-
0089	SW152	14 Jan 2025	8.1	56,552	3.4	-80	27.1	-
0089	SW154	14 Jan 2025	8.11	56,516	2.83	-80.6	26.9	-
0089	SW156	14 Jan 2025	8	56,167	4.59	-76.5	30.4	-
0089	SW305	17 Dec 2024	8.09	54,131	3.65	-147.9	29.1	35,185
0089	SW309	18 Dec 2024	7.99	53,552	1.69	-74.7	25.3	34,810
0089	SW310	18 Dec 2024	7.8	53,919	1.94	-37.8	25.7	35,047
0089	SW311	18 Dec 2024	8.01	53,673	2.19	-77.6	24.6	34,888
0089	SW317	17 Dec 2024	7.88	52,210	5.2	-162	24	33,928
0089	SW318	17 Dec 2024	8	52,345	0.74	-145.6	25.3	34,023
0089	SW319	17 Dec 2024	7.98	53,218	1.48	-118	27.6	34,595
0089	SW353	19 Dec 2024	7.9	53,204	2.12	-145.1	22.8	34,588
0089	SW370	17 Dec 2024	7.91	53,413	3.43	-135.7	27.9	34,719
0089	SW371	17 Dec 2024	8.05	53,755	3.35	-100.2	30.1	34,941
0089	SW372	17 Dec 2024	8.01	52,641	3.52	-139.7	29.6	34,216
0089	SW373	17 Dec 2024	8.12	53,848	4.29	-137	28.9	35,001
0089	SW382	19 Dec 2024	7.94	53,722	1.75	-128.1	23.2	34,931
0089	SW383	19 Dec 2024	7.93	53,412	1.46	-119.8	23	34,728
0089	SW384	19 Dec 2024	7.91	53,115	2.55	-134.7	23.4	34,525
0089	SW406	17 Dec 2024	7.88	53,388	4.23	-102.6	31	34,717
0089	SW408	17 Dec 2024	7.83	53,665	2.07	-122.1	30.4	34,886
0089	SW410	17 Dec 2024	8.21	53,086	1.34	-134.1	31.7	34,507
0089	SW412	18 Dec 2024	7.83	53,057	4.77	-100.7	24.7	34,485
0089	SW414	18 Dec 2024	7.82	53,521	1.05	-131.7	27	34,790
0089	SW416	18 Dec 2024	7.87	53,544	4.02	-127.8	25.8	34,808

			Field Parameters					
			pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)
			pH units	µS/cm	mg/L	mV	°C	mg/L
Site ID	**Location Code**	**Date**						
0089	PW304	17 Dec 2024	7.32	45,830	1.13	-187.3	27	29,761
0089	PW306	18 Dec 2024	7.54	51,521	1.43	105.7	25	31,178
0089	PW329	14 Jan 2025	7.69	58,757	2.7	-81.5	26.6	38,200
0089	PW330	14 Jan 2025	7.64	58,256	0.8	-99.9	25.2	38,880
0089	PW331	14 Jan 2025	7.29	57,984	0.86	-193.4	23.6	37,657
0089	PW335	18 Dec 2024	7.6	58,794	1.81	-91.4	26.1	38,168
0089	PW335	19 Dec 2024	7.57	53,595	1.57	125.5	22.5	35,906
0089	PW340	18 Dec 2024	7.62	56,800	1.92	-154.2	24.9	36,984
0089	PW341	18 Dec 2024	7.64	56,020	1.83	-119.3	24.6	36,474
0089	PW345	17 Dec 2024	7.34	63,008	0.6	-174.3	25	40,972
0089	PW346	17 Dec 2024	7.4	31,298	0.81	-203.7	27.7	20,366
0089	PW351	19 Dec 2024	7.67	53,142	172	118.3	23	31,729
0089	PW352	19 Dec 2024	7.79	53,891	7.81	99.3	22.4	32,145
0089	PW356	14 Jan 2025	7.31	57,739	1.35	-134.4	24.1	37,531
0089	PW357	14 Jan 2025	7.62	58,087	0.47	-99.9	25.5	37,738
0089	PW358	14 Jan 2025	7.99	58,044	0.77	-101.5	24.8	37,770
0089	PW362	18 Dec 2024	7.55	55,869	1.65	-182.6	24.7	36,344
0089	PW363	18 Dec 2024	7.64	56,046	2.12	-90.3	24.6	36,512
0089	PW364	18 Dec 2024	7.61	57,122	1.86	-132.7	25.7	37,158
0089	PW367	17 Dec 2024	7.51	55,261	0.89	-225.1	26.1	35,941
0089	PW368	17 Dec 2024	7.17	50,455	0.63	-214	24.8	32,814
0089	PW369	17 Dec 2024	7.56	55,559	1.13	-167.8	24.8	36,186
0089	PW374	17 Dec 2024	7.41	53,200	1.28	152.4	25	34,555
0089	PW375	17 Dec 2024	7.68	47,533	0.59	174.3	27.1	31,186
0089	PW378	17 Dec 2024	7.66	53,680	1.07	147.2	25.1	-
0089	PW380	19 Dec 2024	7.66	53,670	1.99	71.3	22.8	34,761
0089	PW381	19 Dec 2024	7.78	54,208	1.45	119.7	23.7	34,712
0089	PW401	19 Dec 2024	7.7	54,144	2.3	138.6	22.1	35,216
0089	PW405	17 Dec 2024	7.28	47,770	3.78	110.2	25	-
0089	PW407	17 Dec 2024	7.62	54,550	4.33	114.7	29.7	35,443
0089	PW409	17 Dec 2024	7.53	5,530	1.24	143.2	28.3	35,840
0089	PW411	18 Dec 2024	7.47	53,543	1.48	120.1	24.4	34,939
0089	PW413	18 Dec 2024	7.38	54,043	4.07	59.6	24.3	35,114
0089	PW415	18 Dec 2024	7.44	53,811	4.66	117.6	24.6	34,977

Monitoring Zone					Accommodation Area				AVCAT Storage and Fuel Farm						
Location Code					MW288	MW289	MW289	MW289	MW233	MW236	MW238	MW239	MW239	MW239	MW240
Sample Type					Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal	Field_D	Interlab_D	Normal
Date					17 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024
Field ID					0089_MW288_241217	0089_MW289_241216	0089_QC107_241216	0089_QC207_241216	0089_MW233_241213	0089_MW236_241213	0089_MW238_241213	0089_MW239_241213	0089_QC102_241213	0089_QC202_241213	0089_MW240_241213
Lab Report Number					EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185
Analyte	**Unit**	**LOR**	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)											
Acidity & Alkalinity															
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	<1	-	-	2	<1	<1	4	-	-	7
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			343	274	-	-	178	292	271	260	-	-	247
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	-	-	<1	<1	<1	<1	-	-	<1
Alkalinity (total as CaCO3)	mg/L	1			343	274	-	-	179	292	271	264	-	-	254
Major Ions															
Calcium (filtered)	mg/L	1			100	80	-	-	58	96	94	83	-	-	103
Magnesium (filtered)	mg/L	1			18	22	-	-	8	16	14	11	-	-	10
Potassium (filtered)	mg/L	1			4	6	-	-	3	<1	9	3	-	-	4
Sodium (filtered)	mg/L	1			38	42	-	-	19	22	32	26	-	-	21
Chloride	mg/L	1		250	46	62	-	-	33	37	39	33	-	-	30
Sulfate (filtered)	mg/L	1		1,000	30	55	-	-	12	22	48	41	-	-	33
Cations Total	meq/L	0.01			8.23	7.78	-	-	4.46	7.06	7.46	6.25	-	-	6.98
Anions Total	meq/L	0.01			8.78	8.37	-	-	4.76	7.34	7.51	7.06	-	-	6.61
Ionic Balance	%	0.01			3.23	3.62	-	-	3.27	1.89	0.33	6.04	-	-	2.72
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	0.10	0.09	0.09	<0.02	0.23	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	0.02#1	<0.02	0.24	<0.02	<0.02	<0.02	<0.01	0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	0.20	1.35	1.24	1.2#1	0.36	39.4	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	0.02	0.02	0.02	<0.02	0.08	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	0.08	0.08	0.07#1	<0.02	0.27	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	0.02	0.48	0.45	0.41#1	0.05	18.1	0.04	0.03	0.03	0.03#1	1.24
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	0.29	<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			0.02	0.11	0.10	0.09	<0.02	0.68	<0.02	<0.02	<0.02	<0.01	0.10
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	1.60	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	<0.01	0.03	0.03	0.03#1	<0.01	1.66	<0.01	<0.01	<0.01	<0.01	0.18
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	0.03	0.03	0.03	<0.02	0.15	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			0.24	2.20	2.04	1.96	0.41	62.7	0.04	0.03	0.03	<0.1	1.54
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.24	2.10	1.94	1.85	0.41	60.5	0.04	0.03	0.03	<0.05	1.52
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	1.23	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	0.22	1.83	1.69	1.61	0.41	57.5	0.04	0.03	0.03	0.03	1.24
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	1.64	-	-	-	-	-	0.03	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

WA DWER, 2021, Non-Potable Use of Groundwater

Monitoring Zone					AVCAT Storage and Fuel Farm						Demolition Ground				
Location Code					MW242	MW243	MW245	MW249	MW496	MW516	MW139	MW141	MW142	MW147	MW147
Sample Type					Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Field_D
Date					13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	15 Jan 2025	15 Jan 2025	15 Jan 2025	15 Jan 2025	15 Jan 2025
Field ID					0089_MW242_241213	0089_MW243_241213	0089_MW245_241213	0089_MW249_241213	0089_MW496_241213	0089_MW516_241213	0089_MW139_250115	0089_MW141_250115	0089_MW142_250115	0089_MW147_250115	0089_QC125_250115
Lab Report Number					EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2500597	EP2500597	EP2500597	EP2500597	EP2500597
Analyte	**Unit**	**LOR**	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)											
Acidity & Alkalinity															
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	9	<1	<1	<1	<1	<1	<1	<1	<1	-
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			184	298	202	433	410	550	208	657	484	511	-
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Alkalinity (total as CaCO3)	mg/L	1			184	307	202	433	410	550	208	657	484	511	-
Major Ions															
Calcium (filtered)	mg/L	1			63	120	62	98	77	126	127	321	232	241	-
Magnesium (filtered)	mg/L	1			11	17	6	40	40	38	66	551	539	325	-
Potassium (filtered)	mg/L	1			1	6	2	7	12	12	26	217	260	118	-
Sodium (filtered)	mg/L	1			13	39	10	100	127	54	453	4,060	3,940	2,410	-
Chloride	mg/L	1		250	29	55	11	166	170	58	990	9,050	7,920	5,400	-
Sulfate (filtered)	mg/L	1		1,000	27	66	<1	57	103	28	123	824	1,240	498	-
Cations Total	meq/L	0.01			4.64	9.24	4.07	12.7	13.0	12.1	32.1	244	234	147	-
Anions Total	meq/L	0.01			5.06	9.06	4.35	14.5	15.1	13.2	34.6	286	259	173	-
Ionic Balance	%	0.01			4.29	0.97	3.24	6.64	7.71	4.50	3.75	7.95	5.06	8.23	-
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	0.04	0.03	<0.02	0.83	0.06	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.19[#2]	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	0.08	0.02	<0.02	0.90	0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	0.01	<0.01	0.01	0.10	8.18	5.92	<0.01	72.6	1.33	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.18	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	0.05	0.03	<0.02	1.52	0.08	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	<0.01	0.16	0.02	0.18	0.81	0.82	<0.01	24.7	1.16	0.08	0.09
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.3[#2]	<0.5[#2]	<0.1	0.4	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.51	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	0.11	0.06	<0.02	17.0	0.55	0.07	0.07
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	<0.01	<0.01	<0.01	<0.01	0.08	0.03	<0.01	1.67	0.06	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	1.99	0.04	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			0.01	0.16	0.03	0.28	9.35	6.91	<0.01	122	3.30	0.15	0.16
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.01	0.16	0.03	0.28	9.22	6.86	<0.01	120	3.20	0.15	0.16
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	0.01	0.16	0.03	0.28	8.99	6.74	<0.01	97.3	2.49	0.08	0.09
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water
WA DWER, 2021, Non-Potable Use of Groundwater

Monitoring Zone					Demolition Ground		Dredged Sediments				Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage				
Location Code					MW147	MW149	MW268	MW268	MW268	MW269	MW010	MW010	MW010	MW255	MW256
Sample Type					Interlab_D	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Field_D	Interlab_D	Normal	Normal
Date					15 Jan 2025	15 Jan 2025	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024
Field ID					0089_QC225_250114	0089_MW149_250115	0089_MW268_241213	0089_QC104_241213	0089_QC204_241213	0089_MW269_241213	0089_MW010_241213	0089_QC103_241213	0089_QC203_241213	0089_MW255_241213	0089_MW256_241213
Lab Report Number					1178587	EP2500597	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185
Analyte	**Unit**	**LOR**	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)											
Acidity & Alkalinity															
Alkalinity (Carbonate as CaCO3)	mg/L	1			-	<1	<1	-	-	<1	16	-	-	9	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			-	415	551	-	-	442	318	-	-	345	430
Alkalinity (Hydroxide as CaCO3)	mg/L	1			-	<1	<1	-	-	<1	<1	-	-	<1	<1
Alkalinity (total as CaCO3)	mg/L	1			-	415	551	-	-	442	335	-	-	354	430
Major Ions															
Calcium (filtered)	mg/L	1			-	167	143	-	-	84	88	-	-	96	148
Magnesium (filtered)	mg/L	1			-	346	137	-	-	62	25	-	-	17	23
Potassium (filtered)	mg/L	1			-	146	37	-	-	18	8	-	-	4	5
Sodium (filtered)	mg/L	1			-	2,540	642	-	-	189	116	-	-	55	97
Chloride	mg/L	1		250	-	5,430	1,090	-	-	309	197	-	-	55	228
Sulfate (filtered)	mg/L	1		1,000	-	804	518	-	-	171	46	-	-	34	26
Cations Total	meq/L	0.01			-	151	47.3	-	-	18.0	11.7	-	-	8.68	13.6
Anions Total	meq/L	0.01			-	178	52.5	-	-	21.1	13.2	-	-	9.33	15.6
Ionic Balance	%	0.01			-	8.25	5.27	-	-	8.01	6.06	-	-	3.60	6.64
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.01	<0.02	0.30	0.30	0.25	0.10	<0.02	<0.02	<0.01	0.64	2.39
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	0.10
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	0.21
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	<0.01	0.05	<0.01	<0.01	<0.01	0.42	<0.01	<0.01	<0.01	0.34	5.47
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.01	<0.02	0.12	0.11	0.11	<0.02	<0.02	<0.02	<0.01	0.22	0.83
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.01	<0.02	0.26	0.27	0.21[#1]	0.07	<0.02	<0.02	<0.01	0.52	2.25
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	0.09[#1]	<0.01	0.82	0.72	0.69[#1]	0.78	0.05	0.06	0.06[#1]	8.10	8.68
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.05	0.2	0.6
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	0.12	0.40
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			0.09	<0.02	0.22	0.21	0.17	0.13	<0.02	<0.02	0.01	1.14	4.77
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.03	0.36
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.01	<0.02	0.04	0.03	0.03	0.04	<0.02	<0.02	<0.01	0.26	1.11
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	0.04
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.38
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			0.18	0.05	1.76	1.64	1.46	1.57	0.05	0.06	<0.1	11.6	27.6
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.18	0.05	1.38	1.26	1.14	1.50	0.05	0.06	0.07	10.8	24.2
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	<0.01	-	-	-	<0.01	-	-
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	0.09	0.05	0.82	0.72	0.69	1.20	0.05	0.06	0.06	8.44	14.2
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			0.09	-	-	-	0.69	-	-	-	0.06	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

WA DWER, 2021, Non-Potable Use of Groundwater

Monitoring Zone				Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage				Fire Training Area						
Location Code				MW257	MW258	MW259	MW553	MW109	MW112	MW120	MW121	MW123	MW123	MW123
Sample Type				Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Field_D	Interlab_D
Date				13 Dec 2024	13 Dec 2024	13 Dec 2024	13 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024
Field ID				0089_MW257_241213	0089_MW258_241213	0089_MW259_241213	0089_MW553_241213	0089_MW109_241216	0089_MW112_241216	0089_MW120_241216	0089_MW121_241216	0089_MW123_241216	0089_QC106_241216	0089_QC206_241216
Lab Report Number				EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728
Analyte	**Unit**	**LOR**	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)										
Acidity & Alkalinity														
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	<1	3	<1	<1	<1	<1	<1	-	-
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			191	488	241	347	291	244	258	267	291	-	-
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-
Alkalinity (total as CaCO3)	mg/L	1			191	488	244	347	291	244	258	267	291	-	-
Major Ions														
Calcium (filtered)	mg/L	1			58	119	72	115	87	78	76	71	84	-	-
Magnesium (filtered)	mg/L	1			7	32	11	16	16	10	16	13	15	-	-
Potassium (filtered)	mg/L	1			4	15	2	3	2	<1	4	2	2	-	-
Sodium (filtered)	mg/L	1			21	73	16	62	38	18	27	14	43	-	-
Chloride	mg/L	1		250	30	102	22	96	62	29	49	20	55	-	-
Sulfate (filtered)	mg/L	1		1,000	18	91	14	35	17	19	19	9	10	-	-
Cations Total	meq/L	0.01			4.49	12.1	5.24	9.83	7.36	5.50	6.39	5.27	7.35	-	-
Anions Total	meq/L	0.01			5.04	14.5	5.79	10.4	7.92	6.09	6.93	6.09	7.57	-	-
Ionic Balance	%	0.01			5.79	8.97	4.91	2.68	3.63	5.10	4.10	7.16	1.52	-	-
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	5.22	<0.02	<0.02	0.04	0.07	0.02	0.02	0.06	0.06	0.06
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	0.83	<0.02	<0.02	0.07	1.89	1.40	0.04	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	0.19	11.1	0.06	<0.01	0.74	23.2	3.30	0.92	0.02	0.02	0.02[#1]
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	2.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	4.34	<0.02	<0.02	0.08	0.13	0.04	<0.02	0.04	0.04	0.04[#1]
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	0.05	15.0	0.02	0.06	1.81	7.86	2.90	0.28	0.59	0.47	0.73[#1]
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	0.82	<0.02	<0.02	0.02	0.24	<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			0.09	7.40	<0.02	<0.02	0.24	0.69	0.09	0.03	0.09	0.07	0.08
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	0.01	0.72	<0.01	<0.01	0.06	1.91	0.48	0.04	0.01	0.01	0.02[#1]
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			0.17	2.28	0.03	<0.02	0.03	0.18	<0.02	<0.02	<0.02	<0.02	0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	0.36	<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	0.12	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			0.51	51.4	0.11	0.06	3.09	36.8	8.23	1.33	0.81	0.67	0.98
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.51	44.0	0.11	0.06	2.94	34.2	6.79	1.29	0.77	0.63	0.93
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-	0.04
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	0.24	26.1	0.08	0.06	2.55	31.1	6.20	1.20	0.61	0.49	0.75
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-	0.77

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

WA DWER, 2021, Non-Potable Use of Groundwater

				Monitoring Zone	Fire Training Area						Helicopter Support Facility				
				Location Code	MW124	MW125	MW126	MW127	MW128	MW500	MW214	MW215	MW215	MW215	MW216
				Sample Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Field_D	Interlab_D	Normal
				Date	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024
				Field ID	0089_MW124_241218	0089_MW125_241218	0089_MW126_241218	0089_MW127_241218	0089_MW128_241216	0089_MW500_241216	0089_MW214_241216	0089_MW215_241216	0089_QC105_241216	0089_QC205_241216	0089_MW216_241216
				Lab Report Number	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185
Analyte	**Unit**	**LOR**	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)											
Acidity & Alkalinity															
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			429	406	631	667	248	381	355	276	-	-	372
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1
Alkalinity (total as CaCO3)	mg/L	1			429	406	631	667	248	381	355	276	-	-	372
Major Ions															
Calcium (filtered)	mg/L	1			415	382	326	400	70	123	154	99	-	-	120
Magnesium (filtered)	mg/L	1			1,040	994	871	1,000	10	16	36	26	-	-	48
Potassium (filtered)	mg/L	1			416	409	309	350	4	2	7	8	-	-	13
Sodium (filtered)	mg/L	1			7,090	6,850	5,580	6,220	23	29	230	113	-	-	283
Chloride	mg/L	1		250	15,000	14,600	12,200	13,100	22	42	540	232	-	-	565
Sulfate (filtered)	mg/L	1		1,000	1,730	1,730	1,380	1,630	20	27	71	86	-	-	176
Cations Total	meq/L	0.01			425	409	338	382	5.42	8.77	20.8	12.2	-	-	22.6
Anions Total	meq/L	0.01			468	456	385	417	5.99	9.36	23.8	13.8	-	-	27.0
Ionic Balance	%	0.01			4.74	5.40	6.48	4.39	5.02	3.27	6.66	6.33	-	-	8.98
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	0.08	<0.02	<0.02	<0.02	0.96	<0.02	0.04	0.04	0.03	0.12
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.04[#2]	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	2.04	<0.02	<0.02	<0.02	<0.01	0.04
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	<0.01	<0.01	<0.01	<0.01	1.39	61.6	<0.01	0.04	<0.01	0.01[#1]	0.26
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	0.02	<0.02	<0.02	<0.02	0.31	<0.02	<0.02	<0.02	0.01	0.04
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	0.08	<0.02	<0.02	<0.02	0.56	<0.02	0.06	0.07	0.05[#1]	0.11
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	<0.01	0.30	<0.01	0.02	0.04	13.1	<0.01	0.52	0.52	0.47[#1]	1.15
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.05	3.3
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	0.25	<0.02	0.03	0.03	<0.05	1.60
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	0.10	<0.02	<0.02	<0.02	2.80	<0.02	0.09	0.10	0.09	10.1
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	<0.01	<0.01	<0.01	<0.01	<0.01	0.88	<0.01	0.01	0.01	0.01[#1]	0.12
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	0.62	<0.02	0.03	0.03	0.03	11.9
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.97
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			<0.01	0.58	<0.01	0.02	1.43	83.4	<0.01	0.82	0.80	0.7	31.7
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	0.48	<0.01	0.02	1.43	80.5	<0.01	0.76	0.73	0.64	31.5
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	0.02	-
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	<0.01	0.30	<0.01	0.02	1.43	74.7	<0.01	0.56	0.52	0.48	1.41
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	0.49	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

WA DWER, 2021, Non-Potable Use of Groundwater

Monitoring Zone					Helicopter Support Facility								WWTP		
Location Code					MW217	MW220	MW224	MW225	MW226	MW227	MW228	MW282	MW158	MW161	MW166
Sample Type					Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Date					16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	16 Dec 2024	18 Dec 2024	18 Dec 2024	16 Dec 2024	12 Dec 2024	12 Dec 2024	12 Dec 2024
Field ID					0089_MW217_241216	0089_MW220_241216	0089_MW224_241216	0089_MW225_241216	0089_MW226_241216	0089_MW227_241218	0089_MW228_241218	0089_MW282_241216	0089_MW158_241212	0089_MW161_241212	0089_MW166_241212
Lab Report Number					EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185
Analyte	**Unit**	**LOR**	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)											
Acidity & Alkalinity															
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			278	278	251	385	664	428	984	236	481	389	451
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Alkalinity (total as CaCO3)	mg/L	1			278	278	251	385	664	428	984	236	481	389	451
Major Ions															
Calcium (filtered)	mg/L	1			112	88	63	150	388	107	142	215	193	88	132
Magnesium (filtered)	mg/L	1			15	15	24	57	1,080	71	291	489	344	94	113
Potassium (filtered)	mg/L	1			12	9	4	8	456	23	108	168	102	36	46
Sodium (filtered)	mg/L	1			38	40	69	303	7,880	342	1,300	3,580	2,350	371	569
Chloride	mg/L	1		250	51	92	114	714	13,100	603	1,910	6,160	4,720	617	1,130
Sulfate (filtered)	mg/L	1		1,000	52	26	30	69	2,280	239	512	853	443	250	201
Cations Total	meq/L	0.01			8.78	7.60	8.22	25.6	463	26.6	90.3	211	143	29.2	41.8
Anions Total	meq/L	0.01			8.08	8.69	8.86	29.3	430	30.5	84.2	196	152	30.4	45.1
Ionic Balance	%	0.01			4.20	6.72	3.70	6.76	3.63	6.80	3.52	3.62	3.12	2.01	3.75
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	0.09	<0.02	<0.02	<0.02	<0.02	0.20	0.17	<0.02	<0.02	0.04
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.09
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	1.05	11.0	<0.01	<0.01	<0.01	<0.01	<0.01	1.14	<0.01	0.60	6.88
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.04	0.03	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			0.04	0.05	<0.02	<0.02	<0.02	<0.02	0.13	0.22	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	0.06	0.71	<0.01	<0.01	0.01	<0.01	0.45	0.69	<0.01	0.16	0.46
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			1.4	0.1	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			1.18	0.10	<0.02	<0.02	<0.02	<0.02	0.74	0.09	<0.02	0.03	0.13
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			5.76	0.24	<0.02	<0.02	<0.02	<0.02	2.63	0.38	<0.02	0.06	0.24
Perfluorononanoic acid (PFNA)	µg/L	0.01			0.05	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	0.57	0.09	<0.01	<0.01	<0.01	<0.01	0.13	0.08	<0.01	0.02	0.08
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			6.05	0.19	<0.02	<0.02	<0.02	<0.02	3.01	0.06	<0.02	0.05	0.30
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			15.9	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	0.07
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			1.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			33.4	12.7	<0.01	<0.01	0.01	<0.01	8.39	2.86	<0.01	0.92	8.33
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			33.3	12.5	<0.01	<0.01	0.01	<0.01	8.22	2.61	<0.01	0.92	8.20
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	1.11	11.7	<0.01	<0.01	0.01	<0.01	0.45	1.83	<0.01	0.76	7.34
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water
WA DWER, 2021, Non-Potable Use of Groundwater

Analyte	Unit	LOR	PFAS NEMP 3.0 2025 Health Drinking Water	DWER 2021 Non-potable Groundwater Use (NPUG)											
Monitoring Zone					WWTP										
Location Code					MW171	MW173	MW193	MW195D	MW195D	MW195D	MW196	MW199	MW200	MW203	MW468
Sample Type					Normal	Normal	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal	Normal
Date					12 Dec 2024	12 Dec 2024	12 Dec 2024	12 Dec 2024	12 Dec 2024	12 Dec 2024	12 Dec 2024	12 Dec 2024	18 Dec 2024	13 Dec 2024	18 Dec 2024
Field ID					0089_MW171_241212	0089_MW173_241212	0089_MW193_241212	0089_MW195D_241212	0089_QC101_241212	0089_QC201_241212	0089_MW196_241212	0089_MW199_241212	0089_MW200_241218	0089_MW203_241213	0089_MW468_241218
Lab Report Number					EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185
Acidity & Alkalinity															
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			456	504	439	393	-	-	216	697	437	334	570
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1
Alkalinity (total as CaCO3)	mg/L	1			456	504	439	393	-	-	216	697	437	334	570
Major Ions															
Calcium (filtered)	mg/L	1			108	239	95	251	-	-	61	241	97	94	285
Magnesium (filtered)	mg/L	1			177	142	63	460	-	-	19	469	102	27	525
Potassium (filtered)	mg/L	1			56	18	17	139	-	-	2	142	64	3	162
Sodium (filtered)	mg/L	1			939	328	192	3,230	-	-	25	3,360	1,210	50	3,650
Chloride	mg/L	1		250	1,600	707	336	5,330	-	-	33	6,860	1,930	43	5,840
Sulfate (filtered)	mg/L	1		1,000	278	79	114	758	-	-	20	632	226	37	696
Cations Total	meq/L	0.01			62.2	38.3	18.7	194	-	-	5.75	200	67.5	9.16	220
Anions Total	meq/L	0.01			60.0	31.6	20.6	174	-	-	5.66	220	67.9	8.66	191
Ionic Balance	%	0.01			1.80	9.55	4.86	5.55	-	-	0.73	4.80	0.28	2.85	7.23
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			1.22	0.09	0.31	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			0.86	0.18	0.39	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.07	0.7	2.55	2.14	4.43	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			1.02	<0.02	0.12	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			0.70	0.07	0.50	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.7	4.91	1.16	5.24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			0.6	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			0.14	0.02	0.13	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			1.61	0.17	0.76	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.56	5.6	0.32	0.10	0.36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			0.50	0.05	0.12	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			14.4	3.98	12.4	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	0.06	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			11.8	3.73	11.4	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.06	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	<0.01	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01	0.07	0.7	7.46	3.30	9.67	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	<0.01	-	-	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

#2 Reported Analyte LOR is higher than Requested Analyte LOR

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

WA DWER, 2021, Non-Potable Use of Groundwater

				Monitoring Zone	Demolition Ground							Dredged Sediments		
				Location Code	SW150	SW150	SW150	SW152	SW154	SW156	SW317	SW317	SW317	SW318
				Sample Type	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal	Field_D	Interlab_D	Normal
				Date	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	19 Dec 2024	19 Dec 2024	17 Dec 2024	19 Dec 2024
				Field ID	0089_SW150_250114	0089_QC122_250114	0089_QC222_250114	0089_SW152_250114	0089_SW154_250114	0089_SW156_250114	0089_SW317_241217	0089_QC108_241217	0089_QC208_241217	0089_SW318_241217
				Lab Report Number	EP2500597	EP2500597	1178587	EP2500597	EP2500597	EP2500597	EP2419185	EP2419185	1173728	EP2419185
Analyte	Unit	EQL	PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system	PFAS NEMP 2.0 2020 Recreational Water										
Acidity & Alkalinity														
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	-	-	<1	<1	<1	<1	-	-	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			127	-	-	128	127	126	178	-	-	129
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	-	-	<1	<1	<1	<1	-	-	<1
Alkalinity (total as CaCO3)	mg/L	1			127	-	-	128	127	126	178	-	-	129
Major Ions														
Calcium (filtered)	mg/L	1			465	-	-	460	468	460	378	-	-	439
Magnesium (filtered)	mg/L	1			1,330	-	-	1,320	1,330	1,320	1,200	-	-	1,410
Potassium (filtered)	mg/L	1			533	-	-	534	536	531	492	-	-	579
Sodium (filtered)	mg/L	1			10,200	-	-	10,100	10,100	10,000	9,030	-	-	10,400
Chloride	mg/L	1			19,700	-	-	20,800	19,600	19,400	17,500	-	-	21,000
Sulfate (filtered)	mg/L	1			2,910	-	-	2,920	2,820	2,840	2,210	-	-	2,560
Cations Total	meq/L	0.01			590	-	-	584	586	580	523	-	-	605
Anions Total	meq/L	0.01			619	-	-	650	614	609	543	-	-	648
Ionic Balance	%	0.01			2.39	-	-	5.31	2.36	2.42	1.90	-	-	3.44
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-	-	-	-	<0.01	-

Environmental Standards
HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

				Monitoring Zone	Dredged Sediments	Fire Training Area					Helicopter Support Facility			
				Location Code	SW319	SW130	SW132	SW134	SW134	SW134	SW309	SW310	SW311	SW406
				Sample Type	Normal	Normal	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal
				Date	19 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024
				Field ID	0089_SW319_241217	0089_SW130_241218	0089_SW132_241218	0089_SW134_241218	0089_QC120_241218	0089_QC220_241218	0089_SW309_241218	0089_SW310_241218	0089_SW311_241218	0089_SW406_241217
				Lab Report Number	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419185
Analyte	**Unit**	**EQL**	**PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system**	PFAS NEMP 2.0 2020 Recreational Water										
Acidity & Alkalinity														
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	<1	<1	<1	-	-	<1	<1	<1	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			127	123	130	134	-	-	123	122	123	126
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	<1	-	-	<1	<1	<1	<1
Alkalinity (total as CaCO3)	mg/L	1			127	123	130	134	-	-	123	122	123	126
Major Ions														
Calcium (filtered)	mg/L	1			433	446	457	437	-	-	437	433	440	435
Magnesium (filtered)	mg/L	1			1,390	1,430	1,460	1,400	-	-	1,400	1,390	1,410	1,400
Potassium (filtered)	mg/L	1			577	593	606	578	-	-	579	581	584	580
Sodium (filtered)	mg/L	1			10,400	10,600	10,900	10,400	-	-	10,400	10,400	10,500	10,400
Chloride	mg/L	1			21,100	18,200	17,900	18,300	-	-	21,500	21,400	21,600	21,500
Sulfate (filtered)	mg/L	1			2,600	2,720	2,810	2,660	-	-	2,560	2,610	2,810	2,460
Cations Total	meq/L	0.01			603	616	632	604	-	-	604	603	610	604
Anions Total	meq/L	0.01			652	572	566	574	-	-	662	660	670	660
Ionic Balance	%	0.01			3.88	3.68	5.55	2.54	-	-	4.58	4.53	4.74	4.44
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	<0.01	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	<0.01	-	-	-	-

Environmental Standards
HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

				Monitoring Zone	Helicopter Support Facility							WWTP	
				Location Code	SW408	SW410	SW412	SW412	SW412	SW414	SW416	SW305	SW353
				Sample Type	Normal	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal
				Date	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	18 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	19 Dec 2024
				Field ID	0089_SW408_241217	0089_SW410_241217	0089_SW412_241218	0089_QC116_241218	0089_QC216_241218	0089_SW414_241218	0089_SW416_241218	0089_SW305_241217	0089_SW353_241219
				Lab Report Number	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419204
Analyte	Unit	EQL	PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system	PFAS NEMP 2.0 2020 Recreational Water									
Acidity & Alkalinity													
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	16	<1	-	-	<1	<1	<1	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			132	105	129	-	-	127	125	136	122
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	<1	<1	-	-	<1	<1	<1	<1
Alkalinity (total as CaCO3)	mg/L	1			132	121	129	-	-	127	125	136	122
Major Ions													
Calcium (filtered)	mg/L	1			440	440	439	-	-	452	438	427	444
Magnesium (filtered)	mg/L	1			1,410	1,420	1,410	-	-	1,450	1,410	1,370	1,410
Potassium (filtered)	mg/L	1			581	586	585	-	-	604	586	563	575
Sodium (filtered)	mg/L	1			10,400	10,500	10,400	-	-	10,800	10,500	10,200	10,500
Chloride	mg/L	1			21,200	21,200	21,100	-	-	21,200	21,400	17,400	18,700
Sulfate (filtered)	mg/L	1			2,580	2,560	2,610	-	-	2,570	2,450	2,670	2,610
Cations Total	meq/L	0.01			605	610	605	-	-	627	610	592	610
Anions Total	meq/L	0.01			654	654	652	-	-	654	657	549	584
Ionic Balance	%	0.01			3.90	3.42	3.72	-	-	2.10	3.75	3.77	2.12
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	0.01	0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.01	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01	-	-	-	-

Environmental Standards
HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

				Monitoring Zone	**WWTP**									
				Location Code	SW370	SW370	SW370	SW371	SW372	SW373	SW382	SW383	SW384
				Sample Type	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal	Normal	Normal
				Date	17 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024
				Field ID	0089_SW370_241217	0089_QC111_241217	0089_QC211_241217	0089_SW371_241217	0089_SW372_241217	0089_SW373_241217	0089_SW382_241219	0089_SW383_241219	0089_SW384_241219
				Lab Report Number	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419204	EP2419204	EP2419204
Analyte	**Unit**	**EQL**	**PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system**	PFAS NEMP 2.0 2020 Recreational Water									
Acidity & Alkalinity													
Alkalinity (Carbonate as CaCO3)	mg/L	1			<1	-	-	<1	<1	<1	<1	<1	<1
Alkalinity (Bicarbonate as CaCO3)	mg/L	1			160	-	-	137	141	130	123	123	123
Alkalinity (Hydroxide as CaCO3)	mg/L	1			<1	-	-	<1	<1	<1	<1	<1	<1
Alkalinity (total as CaCO3)	mg/L	1			160	-	-	137	141	130	123	123	123
Major Ions													
Calcium (filtered)	mg/L	1			434	-	-	426	417	433	450	452	449
Magnesium (filtered)	mg/L	1			1,360	-	-	1,360	1,330	1,390	1,440	1,440	1,430
Potassium (filtered)	mg/L	1			557	-	-	571	552	579	590	593	583
Sodium (filtered)	mg/L	1			10,100	-	-	10,200	9,920	10,300	10,600	10,700	10,600
Chloride	mg/L	1			17,100	-	-	20,300	20,100	21,000	18,200	18,300	18,400
Sulfate (filtered)	mg/L	1			2,620	-	-	2,440	2,590	2,490	2,570	2,630	2,580
Cations Total	meq/L	0.01			587	-	-	591	576	599	617	622	616
Anions Total	meq/L	0.01			540	-	-	626	624	647	569	573	575
Ionic Balance	%	0.01			4.17	-	-	2.85	3.99	3.85	4.02	4.04	3.43
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	**0.00023**	2	**0.01**	**0.02**	<0.01	**0.02**	**0.01**	**0.01**	<0.01	<0.01	**0.01**
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	**19**	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			0.01	0.02	<0.1	0.02	0.01	0.01	<0.01	<0.01	0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.01	0.02	<0.05	0.02	0.01	0.01	<0.01	<0.01	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	0.01	0.02	<0.01	0.02	0.01	0.01	<0.01	<0.01	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-	-	-	-	-

Environmental Standards
HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

		Monitoring Zone	Accommodation Area			Demolition Ground							
		Location Code	SD346	SD346	SD346	SD329	SD330	SD331	SD356	SD357	SD358	SD358	SD358
		Sample Type	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate
		Date	17 Dec 2024	17 Dec 2024	17 Dec 2024	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025
		Field ID	0089_SD346_241217	0089_QC115_241217	0089_QC215_241217	0089_SD329_250114	0089_SD330_250114	0089_SD331_250114	0089_SD356_250114	0089_SD357_250114	0089_SD358_250114	0089_QC123_250114	0089_QC223_250114
		Lab Report Number	EP2419185	EP2419185	1173728	EP2500597	EP2500597	EP2500597	EP2500597	EP2500597	EP2500597	EP2500597	1178587
Analyte	**Unit**	**LOR**											
Inorganics													
% Moisture_	%	1	-	-	36	-	-	-	-	-	-	-	27
Moisture (%)	%	0.1	36.7	36.2	-	21.4	31.2	32.7	29.0	30.7	29.8	25.5	-
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	0.0010	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	<0.005	-	-	-	-	-	-	-	<0.005
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
PFAS - Sums													
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	0.0012	<0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	0.0012	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	<0.005	-	-	-	-	-	-	-	<0.005
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	0.0012	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	<0.005	-	-	-	-	-	-	-	<0.005

		Monitoring Zone	Dredged Sediments					Fire Training Area				
		Location Code	SD374	SD375	SD378	SD378	SD378	SD335	SD340	SD341	SD341	SD362
		Sample Type	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Split Duplicate	Primary
		Date	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024
		Field ID	0089_SD374_241217	0089_SD375_241217	0089_SD378_241217	0089_QC109_241217	0089_QC209_241217	0089_SD335_241218	0089_SD340_241218	0089_SD341_241218	0089_QC219_241218	0089_SD362_241218
		Lab Report Number	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	1173728	EP2419185
Analyte	**Unit**	**LOR**										
Inorganics												
% Moisture_	%	1	-	-	-	-	14	-	-	-	32	-
Moisture (%)	%	0.1	19.2	22.3	19.3	13.9	-	35.8	30.8	33.8	-	30.7
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Perfluoroalkyl Sulfonamide												
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Fluorotelomer Sulfonic Acids												
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.01	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
PFAS - Sums												
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002	<0.05	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	<0.005	-

		Monitoring Zone	Fire Training Area		Helicopter Support Facility							
		Location Code	SD363	SD364	SD306	SD307	SD308	SD314	SD315	SD316	SD405	SD407
		Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
		Date	18 Dec 2024	18 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024
		Field ID	0089_SD363_241218	0089_SD364_241218	0089_SD306_241218	0089_SD307_241218	0089_SD308_241218	0089_SD314_241218	0089_SD315_241218	0089_SD316_241218	0089_SD405_241217	0089_SD407_241217
		Lab Report Number	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185
Analyte	**Unit**	**LOR**										
Inorganics												
% Moisture_	%	1	-	-	-	-	-	-	-	-	-	-
Moisture (%)	%	0.1	31.0	31.8	24.8	16.4	5.3	22.6	20.0	4.2	19.7	30.8
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide												
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids												
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums												
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	-	-

		Monitoring Zone	Helicopter Support Facility						WWTP			
		Location Code	SD409	SD411	SD411	SD411	SD413	SD415	SD304	SD345	SD345	SD345
		Sample Type	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate
		Date	19 Dec 2024	19 Dec 2024	19 Dec 2024	18 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024
		Field ID	0089_SD409_241217	0089_SD411_241218	0089_QC118_241218	0089_QC218_241218	0089_SD413_241218	0089_SD415_241218	0089_SD304_241217	0089_SD345_241217	0089_QC112_241217	0089_QC212_241217
		Lab Report Number	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728
Analyte	**Unit**	**LOR**										
Inorganics												
% Moisture_	%	1	-	-	-	21	-	-	-	-	-	31
Moisture (%)	%	0.1	36.2	21.6	26.7	-	25.8	23.3	34.1	34.1	35.8	-
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	<0.005
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Perfluoroalkyl Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Perfluoroalkyl Sulfonamide												
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Fluorotelomer Sulfonic Acids												
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
PFAS - Sums												
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	<0.005
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	<0.005

		Monitoring Zone	WWTP								
		Location Code	SD350	SD351	SD352	SD367	SD368	SD369	SD380	SD381	SD401
		Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
		Date	19 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024
		Field ID	0089_SD350_241219	0089_SD351_241219	0089_SD352_241219	0089_SD367_241217	0089_SD368_241217	0089_SD369_241217	0089_SD380_241219	0089_SD381_241219	0089_SD401_241219
		Lab Report Number	EP2419204	EP2419204	EP2419204	EP2419185	EP2419185	EP2419185	EP2419204	EP2419204	EP2419204
Analyte	**Unit**	**LOR**									
Inorganics											
% Moisture_	%	1	-	-	-	-	-	-	-	-	-
Moisture (%)	%	0.1	22.7	24.7	21.8	34.0	37.8	36.6	22.0	20.4	26.2
PFAS - Perfluoroalkyl Sulfonic Acids											
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids											
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums											
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	-

Monitoring Zone					Accommodation Area			Demolition Ground								Dredged Sediments
Location Code					PW346	PW346	PW346	PW329	PW330	PW331	PW331	PW331	PW356	PW357	PW358	PW374
Sample Type					Normal	Field_D	Interlab_D	Normal	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal
Date					17 Dec 2024	17 Dec 2024	17 Dec 2024	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	19 Dec 2024
Field ID					0089_PW346_241217	0089_QC114_241217	0089_QC214_241217	0089_PW329_250114	0089_PW330_250114	0089_PW331_250114	0089_QC124_250114	0089_QC224_250114	0089_PW356_250114	0089_PW357_250114	0089_PW358_250114	0089_PW374_241217
Lab Report Number					EP2419185	EP2419185	1173728	EP2500597	EP2500597	EP2500597	EP2500597	1178587	EP2500597	EP2500597	EP2500597	EP2419185
Analyte	Unit	LOR	PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system	PFAS NEMP 2.0 2020 Recreational Water												
PFAS - Perfluoroalkyl Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	0.49	0.40	0.47[#1]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	0.01[#1]	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	0.18	0.20	0.19[#1]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			0.17	0.18	0.17	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			0.16	0.19	0.15	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																
PFAS (Sum of Total)	µg/L	0.01			1.00	0.98	0.99	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			1.00	0.98	0.98	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	0.47	-	-	-	-	<0.01	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	0.67	0.60	0.66	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	0.66	-	-	-	-	<0.01	-	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

Analyte	Unit	LOR	PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system	PFAS NEMP 2.0 2020 Recreational Water											
Monitoring Zone					**Dredged Sediments**				**Fire Training Area**							
Location Code					PW375	PW378	PW378	PW378	PW335	PW340	PW341	PW341	PW341	PW362	PW363	PW364
Sample Type					Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal
Date					19 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024	18 Dec 2024
Field ID					0089_PW375_241217	0089_PW378_241217	0089_QC110_241217	0089_QC210_241217	0089_PW335_241218	0089_PW340_241218	0089_PW341_241218	0089_QC121_241218	0089_QC221_241218	0089_PW362_241218	0089_PW363_241218	0089_PW364_241218
Lab Report Number					EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185
PFAS - Perfluoroalkyl Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.02	0.02	<0.01	0.02	0.02	0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
PFAS - Sums																
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.1	0.02	0.03	0.02	0.02	<0.1	0.02	0.02	0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.05	0.02	0.03	0.02	0.02	<0.05	0.02	0.02	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	<0.01	-	-	-	-	<0.01	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.02	0.02	<0.01	0.02	0.02	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	<0.01	-	-	-	-	<0.01	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

				Monitoring Zone	Helicopter Support Facility									WWTP	
				Location Code	PW306	PW405	PW407	PW409	PW411	PW411	PW411	PW413	PW415	PW304	PW345
				Sample Type	Normal	Normal	Normal	Normal	Normal	Field_D	Interlab_D	Normal	Normal	Normal	Normal
				Date	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	18 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	17 Dec 2024
				Field ID	0089_PW306_241218	0089_PW405_241217	0089_PW407_241217	0089_PW409_241217	0089_PW411_241218	0089_QC117_241218	0089_QC217_241218	0089_PW413_241218	0089_PW415_241218	0089_PW304_241217	0089_PW345_241217
				Lab Report Number	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	EP2419185	1173728	EP2419185	EP2419185	EP2419185	EP2419185
Analyte	Unit	LOR	PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system	PFAS NEMP 2.0 2020 Recreational Water											
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.04
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	0.10	0.03	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	0.59	0.08	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	0.36	0.03	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			<0.01	1.26	0.14	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	0.05	0.04
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	1.24	0.14	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.05	0.04
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	<0.01	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	<0.01	-	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

				Monitoring Zone	**WWTP**											
				Location Code	PW345	PW345	PW350	PW351	PW352	PW367	PW368	PW369	PW380	PW381	PW401
				Sample Type	Field_D	Interlab_D	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
				Date	17 Dec 2024	17 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024	17 Dec 2024	17 Dec 2024	17 Dec 2024	19 Dec 2024	19 Dec 2024	19 Dec 2024
				Field ID	0089_QC113_241217	0089_QC213_241217	0089_PW350_241219	0089_PW351_241219	0089_PW352_241219	0089_PW367_241217	0089_PW368_241217	0089_PW369_241217	0089_PW380_241219	0089_PW381_241219	0089_PW401_241219
				Lab Report Number	EP2419185	1173728	EP2419204	EP2419204	EP2419204	EP2419185	EP2419185	EP2419185	EP2419204	EP2419204	EP2419204
Analyte	**Unit**	**LOR**	**PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system**	PFAS NEMP 2.0 2020 Recreational Water											
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	0.07	0.03[#1]	0.02	<0.01	<0.01	0.03	0.03	0.05	0.01	<0.01	0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide															
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums															
PFAS (Sum of Total)	µg/L	0.01			0.07	<0.1	0.02	<0.01	<0.01	0.03	0.03	0.05	0.01	<0.01	0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.07	<0.05	0.02	<0.01	<0.01	0.03	0.03	0.05	0.01	<0.01	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	0.03	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	0.07	0.03	0.02	<0.01	<0.01	0.03	0.03	0.05	0.01	<0.01	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	0.03	-	-	-	-	-	-	-	-	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, January 2020, PFAS NEMP 2.0 2020 Interim marine - 99% - high conservation value system
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Recreational Water

Appendix D

Equipment calibration

GK Environmental EQUIPMENT

Calibration Report

Multi-Parameter Water Quality Instrument

Customer:
Contact:

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 23G103462
Cable length: 1m (23G100262)

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	175.00 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 58.59
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 7 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (23G100242)	Check Temp NATA	Room Temp	23.2	0	°C	NA	23.2	°C
pH (23F)	pH 7.00	398528	7.01	-21.80	mV	7.04	7.01	pH
pH (23F)	pH 4.00	401033	4.00	153.20	mV	4.03	4.00	pH
Conductivity (23G100242)	2764 µs/cm at 25°C	24/0602	2764	GLP	4.97	2775	2764	µs/cm
ORP (23E)	Zobell A & B	24/2803	233	233	mV	226.3	225.7	mV
Zero DO (23D100530)	NaSO3 in distilled water	10175	0.0	NA	NA	-0.1	0.0	%
100% DO (23D100530)	100% Air Saturation	Air	100.0	5.1	uA	88.7	100.0	%

Calibrated by: [redacted]

Calibration Date: 15-Nov-24
Next Due: 14-May-25

GK Environmental EQUIPMENT

Calibration Report

Multi-Parameter Water Quality Instrument

Customer:
Contact:

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 23F102872
Cable length: 1m (23F100177)

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	175.40 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 58.68
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 7 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (23F100012)	Check Temp NATA	Room Temp	23.3	0	°C	NA	23.3	°C
pH (23F)	pH 7.00	398528	7.01	-25.90	mV	7.06	7.01	pH
pH (23F)	pH 4.00	401033	4.00	149.50	mV	4.06	4.00	pH
Conductivity (23F100012)	2764 µs/cm at 25°C	24/0107	2764	GLP	5.17	2763	2764	µs/cm
ORP (23D)	Zobell A & B	24/2803	233	233	mV	237	225.4	mV
Zero DO (23C100524)	NaSO3 in distilled water	10175	0.0	NA	NA	-0.1	0.0	%
100% DO (23C100524)	100% Air Saturation	Air	100.0	6.2	uA	100	100.0	%

Calibrated by: [redacted]

Calibration Date: 19-Nov-24
Next Due: 18-May-25

YSI calibration Log

Project: PFASIM LC WA Job Number: 12641234

YSI serial number: 23G103462

CALIBRATION DETAILS

Sensor	Calibration Standard	Temp/press correction	Compensated value (if corrected)	Required Accuracy)	Pass	Fail	Comment
pH	☒ pH 4.00	Y / N	pH: 4.02	± 0.2	☒	☐	
	☒ pH 7.00	Y / N	pH: 6.99	± 0.2	☒	☐	
	☐ pH 10.00	Y / N	pH:	± 0.2	☐	☐	
Conductivity	☒ 1, 413 µS/cm	Y / N	1429 µS/cm	± 1%	☒	☐	
	☒ 12,880 µS/cm	Y / N	13240 µS/cm	± 1%	☒	☐	
	☐ 35,000 µS/cm	Y / N	µS/cm	± 1%	☐	☐	
Dissolved Oxygen	☐ 100% saturation	Y / N			☐	☐	
	☐ 0% saturation	Y / N			☐	☐	
Redox	☐ Zorbels	Y / N	mV	± 20 mV	☐	☐	
Battery level	☐ 0-25% ☐25-50% ☐50-75% ☐75-100%				☐	☐	

This is to certify that this instrument has been calibrated in accordance with the manufacturers calibration procedure as recommended in the instruments service manual.

Signed [redacted]

Name

Date 6/12/2025

YSI calibration Log

Project: PFASIM LC WA Job Number: 12641234

YSI serial number: 23F102872

CALIBRATION DETAILS

Sensor	Calibration Standard	Temp/press correction	Compensated value (if corrected)	Required Accuracy)	Pass	Fail	Comment
pH	☒ pH 4.00	Y / N	pH: 4.08	± 0.2	☒	☐	
	☒ pH 7.00	Y / N	pH: 7.07	± 0.2	☒	☐	
	☐ pH 10.00	Y / N	pH:	± 0.2	☐	☐	
Conductivity	☒ 1, 413 µS/cm	Y / N	1328 µS/cm	± 1%	☒	☐	
	☒ 12,880 µS/cm	Y / N	13920 µS/cm	± 1%	☒	☐	
	☐ 35,000 µS/cm	Y / N	µS/cm	± 1%	☐	☐	
Dissolved Oxygen	☐ 100% saturation	Y / N			☐	☐	
	☐ 0% saturation	Y / N			☐	☐	
Redox	☐ Zorbels	Y / N	mV	± 20 mV	☐	☐	
Battery level	☐ 0-25% ☐25-50% ☐50-75% ☐75-100%				☐	☐	

This is to certify that this instrument has been calibrated in accordance with the manufacturers calibration procedure as recommended in the instruments service manual.

Signed [redacted]

Name

Date 6/12/2024

GK Environmental EQUIPMENT

Calibration Report

Multi-Parameter Water Quality Instrument

Customer:
Contact:

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 23F102872
Cable length: 1m (23F100177)

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	177.20 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 59.35
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 8 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (23F100012)	Check Temp NATA	Room Temp	22.7	0	°C	NA	22.7	°C
pH (23F)	pH 7.00	398528	7.01	-30.80	mV	7	7.01	pH
pH (23F)	pH 4.00	401033	4.00	146.40	mV	3.97	4.00	pH
Conductivity (23F100012)	2764 µs/cm at 25°C	24/0107	2764	GLP	5.12	2794	2764	µs/cm
ORP (23D)	Zobell A & B	24/1807	234	234	mV	234	226.5	mV
Zero DO (23C100524)	NaSO3 in distilled water	10175	0.0	NA	NA	-0.1	0.0	%
100% DO (23C100524)	100% Air Saturation	Air	100.0	5.3	uA	93.5	100.0	%

Calibrated by: [redacted]

Calibration Date: 09-Jan-25
Next Due: 08-Jul-25

Appendix E

Laboratory certificates and chain of custody documents

CHAIN OF CUSTODY

COC#: **76662** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY [redacted]
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 20/12 1315

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]
derp.labreports@esdat.com.au

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_QC301_241206		06/12/2024 03:53 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
002	0089_QC302_241209		09/12/2024 03:21 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
003	0089_QC303_241209		09/12/2024 03:23 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
004	0089_QC304_241210		10/12/2024 03:20 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
005	0089_QC305_241210		10/12/2024 03:22 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
006	0089_QC306_241211		11/12/2024 03:41 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
007	0089_QC307_241211		11/12/2024 03:42 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		

Environmental Division Perth
Work Order Reference
EP2419184

Telephone : 61-8-9406 1301

CHAIN OF CUSTODY

COC#: **76662** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_QC308_241212		12/12/2024 03:11 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		
009	0089_QC309_241213		13/12/2024 02:37 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3		

CHAIN OF CUSTODY

COC#: 76662 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_QC301_241206	HDPE (no PTFE)	20 mL	00350822044644	Grey	No	
001	0089_QC301_241206	HDPE (no PTFE)	20 mL	00350822044550	Grey	No	
002	0089_QC302_241209	HDPE (no PTFE)	20 mL	00350822044476	Grey	No	
002	0089_QC302_241209	HDPE (no PTFE)	20 mL	00350822044538	Grey	No	
003	0089_QC303_241209	HDPE (no PTFE)	20 mL	00350822044713	Grey	No	
003	0089_QC303_241209	HDPE (no PTFE)	20 mL	00350822044549	Grey	No	
004	0089_QC304_241210	HDPE (no PTFE)	20 mL	00350822044561	Grey	No	
004	0089_QC304_241210	HDPE (no PTFE)	20 mL	00350822044690	Grey	No	
005	0089_QC305_241210	HDPE (no PTFE)	20 mL	00350822044698	Grey	No	
005	0089_QC305_241210	HDPE (no PTFE)	20 mL	00350822044699	Grey	No	
006	0089_QC306_241211	HDPE (no PTFE)	20 mL	00350822044559	Grey	No	
006	0089_QC306_241211	HDPE (no PTFE)	20 mL	00350822044595	Grey	No	
007	0089_QC307_241211	HDPE (no PTFE)	20 mL	00350822044582	Grey	No	
007	0089_QC307_241211	HDPE (no PTFE)	20 mL	00350822044632	Grey	No	
008	0089_QC308_241212	HDPE (no PTFE)	20 mL	00350822044492	Grey	No	
008	0089_QC308_241212	HDPE (no PTFE)	20 mL	00350822044608	Grey	No	
009	0089_QC309_241213	HDPE (no PTFE)	20 mL	00350822044515	Grey	No	
009	0089_QC309_241213	HDPE (no PTFE)	20 mL	00350822044721	Grey	No	

Total Bottle Count: ALS: 18, Non ALS: 0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2419184**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: 12641234 - PFAS OMP	Page	: 1 of 3
Order number	: 12641234	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 76662	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Stirling TA		
Sampler	: [redacted]		

Dates

Date Samples Received	: 20-Dec-2024 13:15	Issue Date	: 23-Dec-2024
Client Requested Due Date	: 06-Jan-2025	Scheduled Reporting Date	: **06-Jan-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 5	Temperature	: 7.9 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 9 / 9

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2419184-001	06-Dec-2024 15:53	0089_QC301_241206	✓
EP2419184-002	09-Dec-2024 15:21	0089_QC302_241209	✓
EP2419184-003	09-Dec-2024 15:23	0089_QC303_241209	✓
EP2419184-004	10-Dec-2024 15:20	0089_QC304_241210	✓
EP2419184-005	10-Dec-2024 15:22	0089_QC305_241210	✓
EP2419184-006	11-Dec-2024 15:41	0089_QC306_241211	✓
EP2419184-007	11-Dec-2024 15:42	0089_QC307_241211	✓
EP2419184-008	12-Dec-2024 15:11	0089_QC308_241212	✓
EP2419184-009	13-Dec-2024 14:37	0089_QC309_241213	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	GHD.LabReports@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	GHD.LabReports@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	GHD.LabReports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	GHD.LabReports@ghd.com
- Chain of Custody (CoC) (COC)	Email	GHD.LabReports@ghd.com
- EDI Format - ESDAT (ESDAT)	Email	GHD.LabReports@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	GHD.LabReports@ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

CERTIFICATE OF ANALYSIS

Work Order	: **EP2419184**	Page	: 1 of 7
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024 13:15
Order number	: 12641234	Date Analysis Commenced	: 30-Dec-2024
C-O-C number	: 76662	Issue Date	: 07-Jan-2025 08:39
Sampler	: [redacted]		
Site	: Stirling TA		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 9		
No. of samples analysed	: 9		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0089_QC301_241206	0089_QC302_241209	0089_QC303_241209	0089_QC304_241210	0089_QC305_241210
			Sampling date / time	06-Dec-2024 15:53	09-Dec-2024 15:21	09-Dec-2024 15:23	10-Dec-2024 15:20	10-Dec-2024 15:22
Compound	CAS Number	LOR	Unit	EP2419184-001	EP2419184-002	EP2419184-003	EP2419184-004	EP2419184-005
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC301_241206	0089_QC302_241209	0089_QC303_241209	0089_QC304_241210	0089_QC305_241210
				Sampling date / time	06-Dec-2024 15:53	09-Dec-2024 15:21	09-Dec-2024 15:23	10-Dec-2024 15:20	10-Dec-2024 15:22
Compound	CAS Number	LOR	Unit		EP2419184-001	EP2419184-002	EP2419184-003	EP2419184-004	EP2419184-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**106**	**104**	**108**	**100**	**108**
13C8-PFOA	---	0.02	%		**102**	**94.8**	**98.1**	**110**	**105**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0089_QC306_241211	0089_QC307_241211	0089_QC308_241212	0089_QC309_241213	----
			Sampling date / time	11-Dec-2024 15:41	11-Dec-2024 15:42	12-Dec-2024 15:11	13-Dec-2024 14:37	---
Compound	CAS Number	LOR	Unit	EP2419184-006	EP2419184-007	EP2419184-008	EP2419184-009	------
				Result	Result	Result	Result	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC306_241211	0089_QC307_241211	0089_QC308_241212	0089_QC309_241213	----
				Sampling date / time	11-Dec-2024 15:41	11-Dec-2024 15:42	12-Dec-2024 15:11	13-Dec-2024 14:37	---
Compound	CAS Number	LOR	Unit		EP2419184-006	EP2419184-007	EP2419184-008	EP2419184-009	------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		122	105	104	106	----
13C8-PFOA	---	0.02	%		121	106	105	103	----

Surrogate Control Limits

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	---	65	140
13C8-PFOA	---	71	133

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2419184**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024
Site	: Stirling TA	Issue Date	: 07-Jan-2025
Sampler	: [redacted]	No. of samples received	: 9
Order number	: 12641234	No. of samples analysed	: 9

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_QC301_241206	**06-Dec-2024**	**02-Jan-2025**	04-Jun-2025	✓	**02-Jan-2025**	04-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC302_241209, 0089_QC303_241209	**09-Dec-2024**	**02-Jan-2025**	07-Jun-2025	✓	**02-Jan-2025**	07-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC304_241210, 0089_QC305_241210	**10-Dec-2024**	**02-Jan-2025**	08-Jun-2025	✓	**02-Jan-2025**	08-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC306_241211, 0089_QC307_241211	**11-Dec-2024**	**02-Jan-2025**	09-Jun-2025	✓	**02-Jan-2025**	09-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC308_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC309_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0089_QC301_241206	**06-Dec-2024**	**02-Jan-2025**	04-Jun-2025	✓	**02-Jan-2025**	04-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC302_241209, 0089_QC303_241209	**09-Dec-2024**	**02-Jan-2025**	07-Jun-2025	✓	**02-Jan-2025**	07-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC304_241210, 0089_QC305_241210	**10-Dec-2024**	**02-Jan-2025**	08-Jun-2025	✓	**02-Jan-2025**	08-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC306_241211, 0089_QC307_241211	**11-Dec-2024**	**02-Jan-2025**	09-Jun-2025	✓	**02-Jan-2025**	09-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC308_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC309_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0089_QC301_241206	**06-Dec-2024**	**02-Jan-2025**	04-Jun-2025	✓	**02-Jan-2025**	04-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC302_241209, 0089_QC303_241209	**09-Dec-2024**	**02-Jan-2025**	07-Jun-2025	✓	**02-Jan-2025**	07-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC304_241210, 0089_QC305_241210	**10-Dec-2024**	**02-Jan-2025**	08-Jun-2025	✓	**02-Jan-2025**	08-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC306_241211, 0089_QC307_241211	**11-Dec-2024**	**02-Jan-2025**	09-Jun-2025	✓	**02-Jan-2025**	09-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC308_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC309_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_QC301_241206	**06-Dec-2024**	**02-Jan-2025**	04-Jun-2025	✓	**02-Jan-2025**	04-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC302_241209, 0089_QC303_241209	**09-Dec-2024**	**02-Jan-2025**	07-Jun-2025	✓	**02-Jan-2025**	07-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC304_241210, 0089_QC305_241210	**10-Dec-2024**	**02-Jan-2025**	08-Jun-2025	✓	**02-Jan-2025**	08-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC306_241211, 0089_QC307_241211	**11-Dec-2024**	**02-Jan-2025**	09-Jun-2025	✓	**02-Jan-2025**	09-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC308_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC309_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0089_QC301_241206	**06-Dec-2024**	**02-Jan-2025**	04-Jun-2025	✓	**02-Jan-2025**	04-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC302_241209, 0089_QC303_241209	**09-Dec-2024**	**02-Jan-2025**	07-Jun-2025	✓	**02-Jan-2025**	07-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC304_241210, 0089_QC305_241210	**10-Dec-2024**	**02-Jan-2025**	08-Jun-2025	✓	**02-Jan-2025**	08-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC306_241211, 0089_QC307_241211	**11-Dec-2024**	**02-Jan-2025**	09-Jun-2025	✓	**02-Jan-2025**	09-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC308_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC309_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

QUALITY CONTROL REPORT

Work Order	: **EP2419184**	Page	: 1 of 6
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024
Order number	: 12641234	Date Analysis Commenced	: 30-Dec-2024
C-O-C number	: 76662	Issue Date	: 07-Jan-2025
Sampler	: [redacted] [redacted]		
Site	: Stirling TA		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 9		
No. of samples analysed	: 9		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291732)									
EP2419204-007	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291732)									
EP2419204-007	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291732)									
EP2419204-007	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291732) - continued									
EP2419204-007	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291732)									
EP2419204-007	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6291732)									
EP2419204-007	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.01	0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291732)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	107	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	103	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	99.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	106	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	97.3	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	99.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291732)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	94.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	107	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291732)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	112	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	108	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	101	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291732)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	113	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	102	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	94.6	64.2	133
EP231P: PFAS Sums (QCLot: 6291732)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291732)							
EP2419204-011	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	106	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	105	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	104	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	107	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	110	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	111	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291732)							
EP2419204-011	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	101	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	115	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	107	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	103	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	104	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	96.7	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	116	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	110	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	106	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	105	71.0	132

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291732)							
EP2419204-011	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	106	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	106	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	115	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	112	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	105	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291732)							
EP2419204-011	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	124	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	111	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	100	70.0	130

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY: [redacted]
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 20/12 1315

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
001	0089_MW109_241216		16/12/2024 01:32 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
002	0089_MW112_241216		16/12/2024 01:21 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
003	0089_MW120_241216		16/12/2024 01:05 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
004	0089_MW121_241216		16/12/2024 12:36 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
005	0089_MW123_241216		16/12/2024 12:45 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
006	0089_MW124_241218		18/12/2024 02:37 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
007	0089_MW125_241218		18/12/2024 11:06 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							

Environmental Division Perth
Work Order Reference
EP2419185
PART 1

Telephone : 61-8-9406 1301

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
008	0089_MW126_241218		18/12/2024 09:50 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
009	0089_MW127_241218		18/12/2024 09:05 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
010	0089_MW128_241216		16/12/2024 01:57 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
011	0089_MW158_241212		12/12/2024 03:20 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
012	0089_MW161_241212		12/12/2024 03:22 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
013	0089_MW166_241212		12/12/2024 03:19 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
014	0089_MW171_241212		12/12/2024 03:23 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
O15	0089_MW173_241212		12/12/2024 12:39 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
O16	0089_MW193_241212		12/12/2024 01:04 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
O17	0089_MW196_241212		12/12/2024 11:04 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
O18	0089_MW199_241212		12/12/2024 03:01 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
O19	0089_MW200_241218		18/12/2024 12:51 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
O20	0089_MW203_241213		13/12/2024 02:58 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
O21	0089_MW195D_241212		12/12/2024 11:33 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
022	0089_MW468_241218		18/12/2024 12:25 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
023	0089_MW288_241217		17/12/2024 08:34 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
024	0089_MW289_241216		16/12/2024 03:07 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
025	0089_MW214_241216		16/12/2024 10:16 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
026	0089_MW215_241216		16/12/2024 09:47 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
027	0089_MW216_241216		16/12/2024 09:34 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
028	0089_MW217_241216		16/12/2024 09:01 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
029	0089_MW220_241216		16/12/2024 08:43 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
030	0089_MW224_241216		16/12/2024 08:30 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
031	0089_MW225_241216		16/12/2024 10:44 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
032	0089_MW226_241216		16/12/2024 11:30 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
033	0089_MW227_241218		18/12/2024 08:33 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
034	0089_MW228_241218		18/12/2024 08:10 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
035	0089_MW282_241216		16/12/2024 08:18 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
036	0089_MW268_241213		13/12/2024 12:48 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
037	0089_MW269_241213		13/12/2024 01:04 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
038	0089_MW233_241213		13/12/2024 10:44 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
039	0089_MW236_241213		13/12/2024 09:11 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
040	0089_MW238_241213		13/12/2024 08:48 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
041	0089_MW239_241213		13/12/2024 08:30 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
042	0089_MW240_241213		13/12/2024 09:00 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
043	0089_MW242_241213		13/12/2024 09:36 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
044	0089_MW243_241213		13/12/2024 08:01 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
045	0089_MW245_241213		13/12/2024 08:14 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
046	0089_MW249_241213		13/12/2024 09:49 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
047	0089_MW496_241213		13/12/2024 10:21 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
048	0089_MW516_241213		13/12/2024 10:03 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
049	0089_MW255_241213		13/12/2024 01:40 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
050	0089_MW256_241213		13/12/2024 01:25 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
051	0089_MW257_241213		13/12/2024 02:09 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
052	0089_MW258_241213		13/12/2024 01:58 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
053	0089_MW259_241213		13/12/2024 02:25 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							
054	0089_MW553_241213		13/12/2024 11:44 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
055	0089_MW010_241213		13/12/2024 11:20 AM	WATER	ALS: 3 Non ALS: 0	No		X	X							
056	0089_SD335_241218		18/12/2024 02:22 PM	SOIL	ALS: 1 Non ALS: 0	No							X			

CHAIN OF CUSTODY

COC#: 77239 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
057	0089_SD340_241218		18/12/2024 11:12 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
058	0089_SD341_241218		18/12/2024 09:59 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
059	0089_SD362_241218		18/12/2024 10:42 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
060	0089_SD363_241218		18/12/2024 09:22 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
061	0089_SD364_241218		18/12/2024 11:44 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
062	0089_SD304_241217		17/12/2024 12:49 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
063	0089_SD345_241217		17/12/2024 10:41 AM	SOIL	ALS: 1 Non ALS: 0	No							X			

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
064	0089_SD367_241217		17/12/2024 11:20 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
065	0089_SD368_241217		17/12/2024 12:49 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
066	0089_SD369_241217		17/12/2024 09:34 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
067	0089_SD346_241217		17/12/2024 02:35 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
068	0089_SD306_241218		19/12/2024 12:33 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
069	0089_SD307_241218		19/12/2024 12:32 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
070	0089_SD308_241218		19/12/2024 12:34 PM	SOIL	ALS: 1 Non ALS: 0	No							X			

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
071	0089_SD314_241218		19/12/2024 12:31 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
072	0089_SD315_241218		19/12/2024 12:33 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
073	0089_SD316_241218		19/12/2024 12:32 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
074	0089_SD405_241217		19/12/2024 11:45 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
075	0089_SD407_241217		19/12/2024 11:46 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
076	0089_SD409_241217		19/12/2024 11:46 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
077	0089_SD411_241218		19/12/2024 12:34 PM	SOIL	ALS: 1 Non ALS: 0	No							X			

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
078	0089_SD413_241218		19/12/2024 12:35 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
079	0089_SD415_241218		19/12/2024 12:36 PM	SOIL	ALS: 1 Non ALS: 0	No							X			
080	0089_SD374_241217		19/12/2024 11:43 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
081	0089_SD375_241217		19/12/2024 11:45 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
082	0089_SW130_241218		18/12/2024 02:49 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
083	0089_SW132_241218		18/12/2024 11:14 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
084	0089_SW134_241218		18/12/2024 10:05 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
085	0089_SW305_241217		17/12/2024 01:00 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
086	0089_SW370_241217		17/12/2024 10:31 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
087	0089_SW371_241217		17/12/2024 12:57 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
088	0089_SW372_241217		17/12/2024 01:01 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
089	0089_SW373_241217		17/12/2024 01:02 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
090	0089_SW309_241218		19/12/2024 12:15 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
091	0089_SW310_241218		19/12/2024 12:04 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
092	0089_SW311_241218		19/12/2024 12:18 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
093	0089_SW406_241217		19/12/2024 11:30 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
094	0089_SW408_241217		19/12/2024 11:20 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
095	0089_SW410_241217		19/12/2024 11:26 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
096	0089_SW412_241218		19/12/2024 12:23 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
097	0089_SW414_241218		19/12/2024 12:21 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
098	0089_SW416_241218		19/12/2024 12:22 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	

CHAIN OF CUSTODY

COC#: 77239 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
099	0089_SW317_241217		19/12/2024 11:19 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
100	0089_SW318_241217		19/12/2024 11:12 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
101	0089_SW319_241217		19/12/2024 11:29 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
102	0089_PW304_241217		17/12/2024 12:54 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
103	0089_PW345_241217		17/12/2024 10:46 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
104	0089_PW367_241217		17/12/2024 11:25 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
105	0089_PW368_241217		17/12/2024 12:52 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
106	0089_PW369_241217		17/12/2024 09:36 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
107	0089_PW346_241217		17/12/2024 02:41 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
108	0089_PW306_241218		19/12/2024 12:05 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
109	0089_PW405_241217		19/12/2024 11:28 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
110	0089_PW407_241217		19/12/2024 11:18 AM	WATER	ALS: 3 Non ALS: 0	No								X		
111	0089_PW409_241217		19/12/2024 11:25 AM	WATER	ALS: 3 Non ALS: 0	No								X		
112	0089_PW411_241218		19/12/2024 12:17 PM	WATER	ALS: 3 Non ALS: 0	No								X		

Environmental Division Perth

Work Order Reference EP2419185 PART 2

Telephone - 61-8-9406 1301

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
113	0089_PW413_241218		19/12/2024 12:24 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
114	0089_PW415_241218		19/12/2024 12:25 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
115	0089_PW374_241217		19/12/2024 11:33 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
116	0089_PW375_241217		19/12/2024 11:13 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
117	0089_PW378_241217		19/12/2024 11:31 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
118	0089_QC101_241212		12/12/2024 11:39 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
119	0089_QC401_241212		12/12/2024 03:16 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
120	0089_QC102_241213		13/12/2024 08:33 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
121	0089_QC103_241213		13/12/2024 11:22 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
122	0089_QC104_241213		13/12/2024 12:49 PM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
123	0089_QC402_241213		13/12/2024 02:33 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									
124	0089_QC105_241216		16/12/2024 09:50 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
125	0089_QC106_241216		16/12/2024 12:48 PM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
126	0089_MW500_241216		16/12/2024 01:43 PM	WATER	ALS: 3 Non ALS: 0	No		X	X							

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
134	0089_QC114_241217		17/12/2024 02:42 PM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
135	0089_QC313_241217		17/12/2024 03:45 PM	WATER	ALS: 2 Non ALS: 0	No						Partial 1/3				
136	0089_QC312_241217		17/12/2024 03:46 PM	WATER	ALS: 2 Non ALS: 0	No						Partial 1/3				
137	0089_PW363_241218		18/12/2024 09:26 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
138	0089_QC119_241218		18/12/2024 10:00 AM	WATER	ALS: 1 Non ALS: 0	No				X						
139	0089_QC120_241218		18/12/2024 10:07 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
140	0089_PW341_241218		18/12/2024 10:14 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
141	0089_QC121_241218		18/12/2024 10:16 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
142	0089_PW362_241218		18/12/2024 10:45 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
143	0089_PW340_241218		18/12/2024 11:19 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
144	0089_PW364_241218		18/12/2024 11:49 AM	WATER	ALS: 3 Non ALS: 0	No								X	X	
145	0089_PW335_241218		18/12/2024 02:26 PM	WATER	ALS: 3 Non ALS: 0	No								X	X	
146	0089_QC314_241218		18/12/2024 02:57 PM	WATER	ALS: 2 Non ALS: 0	No						Partial 1/3				
147	0089_QC315_241218		18/12/2024 03:31 PM	WATER	ALS: 2 Non ALS: 0	No						Partial 1/3				

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
148	0089_QC405_241218		18/12/2024 03:33 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									
149	0089_QC108_241217		19/12/2024 11:16 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
150	0089_QC110_241217		19/12/2024 11:17 AM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
151	0089_QC109_241217		19/12/2024 11:44 AM	SOIL	ALS: 1 Non ALS: 0	No				X						
152	0089_SD378_241217		19/12/2024 11:48 AM	SOIL	ALS: 1 Non ALS: 0	No							X			
153	0089_QC404_241217		19/12/2024 11:56 AM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									
154	0089_QC311_241217		19/12/2024 11:58 AM	WATER	ALS: 2 Non ALS: 0	No						Partial 1/3				

CHAIN OF CUSTODY

COC#: 77239 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:

/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED									
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
155	0089_QC501_241219	TBW1899	19/12/2024 12:00 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									
156	0089_QC116_241218		19/12/2024 12:07 PM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
157	0089_QC117_241218		19/12/2024 12:20 PM	WATER	ALS: 2 Non ALS: 0	No					Partial 1/3					
158	0089_QC118_241218		19/12/2024 12:37 PM	SOIL	ALS: 1 Non ALS: 0	No				X						
159	0089_QC502_241219	TBW1894	19/12/2024 12:39 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									
160	0089_QC503_241219	TBW1901	19/12/2024 12:43 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									
161	0089_QC504_241219	TBW1898	19/12/2024 12:45 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Intra-Lab Duplicate (PFAS) - Soil SOIL	Intra-Lab Duplicate (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS
162	0089_QC505_241219	TBW1900	19/12/2024 12:47 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3									

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
118	0089_QC101_241212	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
119	0089_QC401_241212	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
120	0089_QC102_241213	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
121	0089_QC103_241213	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
122	0089_QC104_241213	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
123	0089_QC402_241213	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
124	0089_QC105_241216	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
125	0089_QC106_241216	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
127	0089_QC107_241216	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
128	0089_QC310_241216	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
129	0089_QC403_241216	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
130	0089_QC111_241217	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
132	0089_QC113_241217	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
134	0089_QC114_241217	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
135	0089_QC313_241217	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

136	0089_QC312_241217	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
139	0089_QC120_241218	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
141	0089_QC121_241218	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
146	0089_QC314_241218	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
147	0089_QC315_241218	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
148	0089_QC405_241218	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
149	0089_QC108_241217	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
150	0089_QC110_241217	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
153	0089_QC404_241217	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
154	0089_QC311_241217	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
155	0089_QC501_241219	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
156	0089_QC116_241218	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
157	0089_QC117_241218	Intra-Lab Duplicate (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
159	0089_QC502_241219	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
160	0089_QC503_241219	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
161	0089_QC504_241219	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC: 77239 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

162	0089_QC505_241219	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW109_241216	Clear Plastic Bottle - Natural	125 mL	00070522195198	Green	No	
001	0089_MW109_241216	HDPE (no PTFE)	20 mL	00350822044597	Grey	No	
001	0089_MW109_241216	HDPE (no PTFE)	125 mL	00350822044562	Grey	No	
002	0089_MW112_241216	HDPE (no PTFE)	20 mL	00350822044718	Grey	No	
002	0089_MW112_241216	HDPE (no PTFE)	20 mL	00350822044544	Grey	No	
002	0089_MW112_241216	Clear Plastic Bottle - Natural	125 mL	00070522195254	Green	No	
003	0089_MW120_241216	HDPE (no PTFE)	20 mL	00350822044745	Grey	No	
003	0089_MW120_241216	HDPE (no PTFE)	20 mL	00350822044616	Grey	No	
003	0089_MW120_241216	Clear Plastic Bottle - Natural	125 mL	00070522195213	Green	No	
004	0089_MW121_241216	Clear Plastic Bottle - Natural	125 mL	00070522195128	Green	No	
004	0089_MW121_241216	HDPE (no PTFE)	20 mL	00350822044563	Grey	No	
004	0089_MW121_241216	HDPE (no PTFE)	20 mL	00350822044665	Grey	No	
005	0089_MW123_241216	Clear Plastic Bottle - Natural	125 mL	00070522195082	Green	No	
005	0089_MW123_241216	HDPE (no PTFE)	20 mL	00350822044711	Grey	No	
005	0089_MW123_241216	HDPE (no PTFE)	20 mL	00350822044703	Grey	No	
006	0089_MW124_241218	Clear Plastic Bottle - Natural	125 mL	00070522194989	Green	No	
006	0089_MW124_241218	HDPE (no PTFE)	20 mL	00350822044739	Grey	No	
006	0089_MW124_241218	HDPE (no PTFE)	20 mL	00350822044503	Grey	No	
007	0089_MW125_241218	HDPE (no PTFE)	20 mL	00350822044649	Grey	No	
007	0089_MW125_241218	HDPE (no PTFE)	20 mL	00350822044485	Grey	No	
007	0089_MW125_241218	Clear Plastic Bottle - Natural	125 mL	00070522195001	Green	No	
008	0089_MW126_241218	Clear Plastic Bottle - Natural	125 mL	00070522195248	Green	No	
008	0089_MW126_241218	HDPE (no PTFE)	20 mL	00350822044530	Grey	No	
008	0089_MW126_241218	HDPE (no PTFE)	20 mL	00350822044669	Grey	No	
009	0089_MW127_241218	Clear Plastic Bottle - Natural	125 mL	00070522195161	Green	No	
009	0089_MW127_241218	HDPE (no PTFE)	20 mL	00350822044760	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

009	0089_MW127_241218	HDPE (no PTFE)	20 mL	00350822044705	Grey	No	
010	0089_MW128_241216	Clear Plastic Bottle - Natural	125 mL	00070522195115	Green	No	
010	0089_MW128_241216	HDPE (no PTFE)	20 mL	00350822044618	Grey	No	
010	0089_MW128_241216	HDPE (no PTFE)	20 mL	00350822044696	Grey	No	
011	0089_MW158_241212	Clear Plastic Bottle - Natural	125 mL	00070522195083	Green	No	
011	0089_MW158_241212	HDPE (no PTFE)	20 mL	00350822044581	Grey	No	
011	0089_MW158_241212	HDPE (no PTFE)	20 mL	00350822044707	Grey	No	
012	0089_MW161_241212	Clear Plastic Bottle - Natural	125 mL	00070522195017	Green	No	
012	0089_MW161_241212	HDPE (no PTFE)	20 mL	00350822044545	Grey	No	
012	0089_MW161_241212	HDPE (no PTFE)	20 mL	00350822044508	Grey	No	
013	0089_MW166_241212	Clear Plastic Bottle - Natural	125 mL	00070522195063	Green	No	
013	0089_MW166_241212	HDPE (no PTFE)	20 mL	00350822044637	Grey	No	
013	0089_MW166_241212	HDPE (no PTFE)	20 mL	00350822044516	Grey	No	
014	0089_MW171_241212	Clear Plastic Bottle - Natural	125 mL	00070522195120	Green	No	
014	0089_MW171_241212	HDPE (no PTFE)	20 mL	00350822044680	Grey	No	
014	0089_MW171_241212	HDPE (no PTFE)	20 mL	00350822044626	Grey	No	
015	0089_MW173_241212	HDPE (no PTFE)	20 mL	00350822044556	Grey	No	
015	0089_MW173_241212	Clear Plastic Bottle - Natural	125 mL	00070522195027	Green	No	
015	0089_MW173_241212	HDPE (no PTFE)	20 mL	00350822044605	Grey	No	
016	0089_MW193_241212	Clear Plastic Bottle - Natural	125 mL	00070522195130	Green	No	
016	0089_MW193_241212	HDPE (no PTFE)	20 mL	00350822044648	Grey	No	
016	0089_MW193_241212	HDPE (no PTFE)	20 mL	00350822044767	Grey	No	
017	0089_MW196_241212	HDPE (no PTFE)	20 mL	00350822044765	Grey	No	
017	0089_MW196_241212	HDPE (no PTFE)	20 mL	00350822044628	Grey	No	
017	0089_MW196_241212	Clear Plastic Bottle - Natural	125 mL	00070522195067	Green	No	
018	0089_MW199_241212	Clear Plastic Bottle - Natural	125 mL	00070522195069	Green	No	
018	0089_MW199_241212	HDPE (no PTFE)	20 mL	00350822044677	Grey	No	

Environmental Division
Perth
Work Order Reference
EP2419185
PART 3

Telephone : +61-8-9406 1301

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

018	0089_MW199_241212	HDPE (no PTFE)	20 mL	00350822044491	Grey	No	
019	0089_MW200_241218	Clear Plastic Bottle - Natural	125 mL	00070522195309	Green	No	
019	0089_MW200_241218	HDPE (no PTFE)	20 mL	00350822044654	Grey	No	
019	0089_MW200_241218	HDPE (no PTFE)	20 mL	00350822044748	Grey	No	
020	0089_MW203_241213	Clear Plastic Bottle - Natural	125 mL	00070522195026	Green	No	
020	0089_MW203_241213	HDPE (no PTFE)	20 mL	00350822044695	Grey	No	
020	0089_MW203_241213	HDPE (no PTFE)	20 mL	00350822044553	Grey	No	
021	0089_MW195D_241212	Clear Plastic Bottle - Natural	125 mL	00070522195102	Green	No	
021	0089_MW195D_241212	HDPE (no PTFE)	20 mL	00350822044764	Grey	No	
021	0089_MW195D_241212	HDPE (no PTFE)	20 mL	00350822044700	Grey	No	
022	0089_MW468_241218	Clear Plastic Bottle - Natural	125 mL	00070522194991	Green	No	
022	0089_MW468_241218	HDPE (no PTFE)	20 mL	00350822044772	Grey	No	
022	0089_MW468_241218	HDPE (no PTFE)	20 mL	00350822044682	Grey	No	
023	0089_MW288_241217	Clear Plastic Bottle - Natural	125 mL	00070522195146	Green	No	
023	0089_MW288_241217	HDPE (no PTFE)	20 mL	00350822044602	Grey	No	
023	0089_MW288_241217	HDPE (no PTFE)	20 mL	00350822044781	Grey	No	
024	0089_MW289_241216	Clear Plastic Bottle - Natural	125 mL	00070522195300	Green	No	
024	0089_MW289_241216	HDPE (no PTFE)	20 mL	00350822044732	Grey	No	
024	0089_MW289_241216	HDPE (no PTFE)	20 mL	00350822044643	Grey	No	
025	0089_MW214_241216	HDPE (no PTFE)	20 mL	00350822044533	Grey	No	
025	0089_MW214_241216	HDPE (no PTFE)	20 mL	00350822044771	Grey	No	
025	0089_MW214_241216	Clear Plastic Bottle - Natural	125 mL	00070522195293	Green	No	
026	0089_MW215_241216	HDPE (no PTFE)	20 mL	00350822044526	Grey	No	
026	0089_MW215_241216	Clear Plastic Bottle - Natural	125 mL	00070522195122	Green	No	
026	0089_MW215_241216	HDPE (no PTFE)	20 mL	00350822044646	Grey	No	
027	0089_MW216_241216	Clear Plastic Bottle - Natural	125 mL	00070522195012	Green	No	
027	0089_MW216_241216	HDPE (no PTFE)	20 mL	00350822044645	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

027	0089_MW216_241216	HDPE (no PTFE)	20 mL	00350822044601	Grey	No	
028	0089_MW217_241216	Clear Plastic Bottle - Natural	125 mL	00070522195311	Green	No	
028	0089_MW217_241216	HDPE (no PTFE)	20 mL	00350822044749	Grey	No	
028	0089_MW217_241216	HDPE (no PTFE)	20 mL	00350822044497	Grey	No	
029	0089_MW220_241216	HDPE (no PTFE)	20 mL	00350822044719	Grey	No	
029	0089_MW220_241216	Clear Plastic Bottle - Natural	125 mL	00070522195076	Green	No	
029	0089_MW220_241216	HDPE (no PTFE)	20 mL	00350822044619	Grey	No	
030	0089_MW224_241216	Clear Plastic Bottle - Natural	125 mL	00070522195296	Green	No	
030	0089_MW224_241216	HDPE (no PTFE)	20 mL	00350822044493	Grey	No	
030	0089_MW224_241216	HDPE (no PTFE)	20 mL	00350822044588	Grey	No	
031	0089_MW225_241216	Clear Plastic Bottle - Natural	125 mL	00070522195209	Green	No	
031	0089_MW225_241216	HDPE (no PTFE)	20 mL	00350822044640	Grey	No	
031	0089_MW225_241216	HDPE (no PTFE)	20 mL	00350822044743	Grey	No	
032	0089_MW226_241216	Clear Plastic Bottle - Natural	125 mL	00070522195305	Green	No	
032	0089_MW226_241216	HDPE (no PTFE)	20 mL	00350822044779	Grey	No	
032	0089_MW226_241216	HDPE (no PTFE)	20 mL	00350822044623	Grey	No	
033	0089_MW227_241218	Clear Plastic Bottle - Natural	125 mL	00070522195303	Green	No	
033	0089_MW227_241218	HDPE (no PTFE)	20 mL	00350822044592	Grey	No	
033	0089_MW227_241218	HDPE (no PTFE)	20 mL	00350822044762	Grey	No	
034	0089_MW228_241218	HDPE (no PTFE)	20 mL	00350822044579	Grey	No	
034	0089_MW228_241218	HDPE (no PTFE)	20 mL	00350822044744	Grey	No	
034	0089_MW228_241218	Clear Plastic Bottle - Natural	125 mL	00070522195246	Green	No	
035	0089_MW282_241216	Clear Plastic Bottle - Natural	125 mL	00070522195177	Green	No	
035	0089_MW282_241216	HDPE (no PTFE)	20 mL	00350822044572	Grey	No	
035	0089_MW282_241216	HDPE (no PTFE)	20 mL	00350822044486	Grey	No	
036	0089_MW268_241213	Clear Plastic Bottle - Natural	125 mL	00070522195011	Green	No	
036	0089_MW268_241213	HDPE (no PTFE)	20 mL	00350822044529	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

036	0089_MW268_241213	HDPE (no PTFE)	20 mL	00350822044589	Grey	No	
037	0089_MW269_241213	Clear Plastic Bottle - Natural	125 mL	00070522195016	Green	No	
037	0089_MW269_241213	HDPE (no PTFE)	20 mL	00350822044715	Grey	No	
037	0089_MW269_241213	HDPE (no PTFE)	20 mL	00350822044569	Grey	No	
038	0089_MW233_241213	Clear Plastic Bottle - Natural	125 mL	00070522195005	Green	No	
038	0089_MW233_241213	HDPE (no PTFE)	20 mL	00350822044498	Grey	No	
038	0089_MW233_241213	HDPE (no PTFE)	20 mL	00350822044564	Grey	No	
039	0089_MW236_241213	Clear Plastic Bottle - Natural	125 mL	00070522195019	Green	No	
039	0089_MW236_241213	HDPE (no PTFE)	20 mL	00350822044621	Grey	No	
039	0089_MW236_241213	HDPE (no PTFE)	20 mL	00350822044712	Grey	No	
040	0089_MW238_241213	Clear Plastic Bottle - Natural	125 mL	00070522195065	Green	No	
040	0089_MW238_241213	HDPE (no PTFE)	20 mL	00350822044656	Grey	No	
040	0089_MW238_241213	HDPE (no PTFE)	20 mL	00350822044666	Grey	No	
041	0089_MW239_241213	Clear Plastic Bottle - Natural	125 mL	00070522195106	Green	No	
041	0089_MW239_241213	HDPE (no PTFE)	20 mL	00350822044507	Grey	No	
041	0089_MW239_241213	HDPE (no PTFE)	20 mL	00350822044751	Grey	No	
042	0089_MW240_241213	HDPE (no PTFE)	20 mL	00350822044473	Grey	No	
042	0089_MW240_241213	Clear Plastic Bottle - Natural	125 mL	00070522195126	Green	No	
042	0089_MW240_241213	HDPE (no PTFE)	20 mL	00350822044763	Grey	No	
043	0089_MW242_241213	Clear Plastic Bottle - Natural	125 mL	00070522195045	Green	No	
043	0089_MW242_241213	HDPE (no PTFE)	20 mL	00350822044494	Grey	No	
043	0089_MW242_241213	HDPE (no PTFE)	20 mL	00350822044746	Grey	No	
044	0089_MW243_241213	HDPE (no PTFE)	20 mL	00350822044532	Grey	No	
044	0089_MW243_241213	HDPE (no PTFE)	20 mL	00350822044512	Grey	No	
044	0089_MW243_241213	Clear Plastic Bottle - Natural	125 mL	00070522195100	Green	No	
045	0089_MW245_241213	Clear Plastic Bottle - Natural	125 mL	00070522195053	Green	No	
045	0089_MW245_241213	HDPE (no PTFE)	20 mL	00350822044614	Grey	No	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:
QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:
/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

045	0089_MW245_241213	HDPE (no PTFE)	20 mL	00350822044757	Grey	No	
046	0089_MW249_241213	HDPE (no PTFE)	20 mL	00350822044652	Grey	No	
046	0089_MW249_241213	HDPE (no PTFE)	20 mL	00350822044758	Grey	No	
046	0089_MW249_241213	Clear Plastic Bottle - Natural	125 mL	00070522194996	Green	No	
047	0089_MW496_241213	Clear Plastic Bottle - Natural	125 mL	00070522195031	Green	No	
047	0089_MW496_241213	HDPE (no PTFE)	20 mL	00350822044768	Grey	No	
047	0089_MW496_241213	HDPE (no PTFE)	20 mL	00350822044663	Grey	No	
048	0089_MW516_241213	Clear Plastic Bottle - Natural	125 mL	00070522195043	Green	No	
048	0089_MW516_241213	HDPE (no PTFE)	20 mL	00350822044723	Grey	No	
048	0089_MW516_241213	HDPE (no PTFE)	20 mL	00350822044676	Grey	No	
049	0089_MW255_241213	Clear Plastic Bottle - Natural	125 mL	00070522195020	Green	No	
049	0089_MW255_241213	HDPE (no PTFE)	20 mL	00350822044513	Grey	No	
049	0089_MW255_241213	HDPE (no PTFE)	20 mL	00350822044651	Grey	No	
050	0089_MW256_241213	Clear Plastic Bottle - Natural	125 mL	00070522195015	Green	No	
050	0089_MW256_241213	HDPE (no PTFE)	20 mL	00350822044704	Grey	No	
050	0089_MW256_241213	HDPE (no PTFE)	20 mL	00350822044720	Grey	No	
051	0089_MW257_241213	Clear Plastic Bottle - Natural	125 mL	00070522195052	Green	No	
051	0089_MW257_241213	HDPE (no PTFE)	20 mL	00350822044611	Grey	No	
051	0089_MW257_241213	HDPE (no PTFE)	20 mL	00350822044548	Grey	No	
052	0089_MW258_241213	Clear Plastic Bottle - Natural	125 mL	00070522195066	Green	No	
052	0089_MW258_241213	HDPE (no PTFE)	20 mL	00350822044552	Grey	No	
052	0089_MW258_241213	HDPE (no PTFE)	20 mL	00350822044660	Grey	No	
053	0089_MW259_241213	HDPE (no PTFE)	20 mL	00350822044510	Grey	No	
053	0089_MW259_241213	HDPE (no PTFE)	20 mL	00350822044650	Grey	No	
053	0089_MW259_241213	Clear Plastic Bottle - Natural	125 mL	00070522195144	Green	No	
054	0089_MW553_241213	Clear Plastic Bottle - Natural	125 mL	00070522195074	Green	No	
054	0089_MW553_241213	HDPE (no PTFE)	20 mL	00350822044761	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

054	0089_MW553_241213	HDPE (no PTFE)	20 mL	00350822044518	Grey	No	
055	0089_MW010_241213	Clear Plastic Bottle - Natural	125 mL	00070522195028	Green	No	
055	0089_MW010_241213	HDPE (no PTFE)	20 mL	00350822044731	Grey	No	
055	0089_MW010_241213	HDPE (no PTFE)	20 mL	00350822044688	Grey	No	
056	0089_SD335_241218	HDPE Soil Jar	200 mL	00621122024663	Grey	No	
057	0089_SD340_241218	HDPE Soil Jar	200 mL	00621122024756	Grey	No	
058	0089_SD341_241218	HDPE Soil Jar	200 mL	00621122024706	Grey	No	
059	0089_SD362_241218	HDPE Soil Jar	200 mL	00621122024682	Grey	No	
060	0089_SD363_241218	HDPE Soil Jar	200 mL	00621122024649	Grey	No	
061	0089_SD364_241218	HDPE Soil Jar	200 mL	00621122024639	Grey	No	
062	0089_SD304_241217	HDPE Soil Jar	200 mL	00621122024746	Grey	No	
063	0089_SD345_241217	HDPE Soil Jar	200 mL	00621122024653	Grey	No	
064	0089_SD367_241217	HDPE Soil Jar	200 mL	00621122024745	Grey	No	
065	0089_SD368_241217	HDPE Soil Jar	200 mL	00621122024788	Grey	No	
066	0089_SD369_241217	HDPE Soil Jar	200 mL	00621122024688	Grey	No	
067	0089_SD346_241217	HDPE Soil Jar	200 mL	00621122024777	Grey	No	
068	0089_SD306_241218	HDPE Soil Jar	200 mL	00621222065682	Grey	No	
069	0089_SD307_241218	HDPE Soil Jar	200 mL	00621122024707	Grey	No	
070	0089_SD308_241218	HDPE Soil Jar	200 mL	00621122024735	Grey	No	
071	0089_SD314_241218	HDPE Soil Jar	200 mL	00621122024710	Grey	No	
072	0089_SD315_241218	HDPE Soil Jar	200 mL	00621122024696	Grey	No	
073	0089_SD316_241218	HDPE Soil Jar	200 mL	00621122024697	Grey	No	
074	0089_SD405_241217	HDPE Soil Jar	200 mL	00621122024727	Grey	No	
075	0089_SD407_241217	HDPE Soil Jar	200 mL	00621222065613	Grey	No	
076	0089_SD409_241217	HDPE Soil Jar	200 mL	00621122024695	Grey	No	
077	0089_SD411_241218	HDPE Soil Jar	200 mL	00621122024770	Grey	No	
078	0089_SD413_241218	HDPE Soil Jar	200 mL	00621122024704	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

079	0089_SD415_241218	HDPE Soil Jar	200 mL	00621122024684	Grey	No	
080	0089_SD374_241217	HDPE Soil Jar	200 mL	00621222065687	Grey	No	
081	0089_SD375_241217	HDPE Soil Jar	200 mL	00621122024703	Grey	No	
082	0089_SW130_241218	Clear Plastic Bottle - Natural	125 mL	00070522195010	Green	No	
082	0089_SW130_241218	HDPE (no PTFE)	20 mL	00350822044475	Grey	No	
082	0089_SW130_241218	HDPE (no PTFE)	20 mL	00350822044689	Grey	No	
083	0089_SW132_241218	HDPE (no PTFE)	20 mL	00350822044585	Grey	No	
083	0089_SW132_241218	Clear Plastic Bottle - Natural	125 mL	00070522195093	Green	No	
083	0089_SW132_241218	HDPE (no PTFE)	20 mL	00350822044523	Grey	No	
084	0089_SW134_241218	Clear Plastic Bottle - Natural	125 mL	00070522195226	Green	No	
084	0089_SW134_241218	HDPE (no PTFE)	20 mL	00350822044678	Grey	No	
084	0089_SW134_241218	HDPE (no PTFE)	20 mL	00350822044546	Grey	No	
085	0089_SW305_241217	Clear Plastic Bottle - Natural	125 mL	00070522195178	Green	No	
085	0089_SW305_241217	HDPE (no PTFE)	20 mL	00350822044495	Grey	No	
085	0089_SW305_241217	HDPE (no PTFE)	20 mL	00350822044500	Grey	No	
086	0089_SW370_241217	Clear Plastic Bottle - Natural	125 mL	00070522195081	Green	No	
086	0089_SW370_241217	HDPE (no PTFE)	20 mL	00350822044536	Grey	No	
086	0089_SW370_241217	HDPE (no PTFE)	20 mL	00350822044609	Grey	No	
087	0089_SW371_241217	Clear Plastic Bottle - Natural	125 mL	00070522195194	Green	No	
087	0089_SW371_241217	HDPE (no PTFE)	20 mL	00350822044496	Grey	No	
087	0089_SW371_241217	HDPE (no PTFE)	20 mL	00350822044540	Grey	No	
088	0089_SW372_241217	Clear Plastic Bottle - Natural	125 mL	00070522195110	Green	No	
088	0089_SW372_241217	HDPE (no PTFE)	20 mL	00350822044617	Grey	No	
088	0089_SW372_241217	HDPE (no PTFE)	20 mL	00350822044543	Grey	No	
089	0089_SW373_241217	Clear Plastic Bottle - Natural	125 mL	00070522195097	Green	No	
089	0089_SW373_241217	HDPE (no PTFE)	20 mL	00350822044687	Grey	No	
089	0089_SW373_241217	HDPE (no PTFE)	20 mL	00350822044525	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

090	0089_SW309_241218	HDPE (no PTFE)	20 mL	00352312077016	Grey	No	
090	0089_SW309_241218	HDPE (no PTFE)	20 mL	00352312077331	Grey	No	
090	0089_SW309_241218	Clear Plastic Bottle - Natural	125 mL	00070821218141	Green	No	
091	0089_SW310_241218	HDPE (no PTFE)	20 mL	00352312077020	Grey	No	
091	0089_SW310_241218	HDPE (no PTFE)	20 mL	00352312076903	Grey	No	
091	0089_SW310_241218	Clear Plastic Bottle - Natural	125 mL	00070821218109	Green	No	
092	0089_SW311_241218	HDPE (no PTFE)	20 mL	00350822044701	Grey	No	
092	0089_SW311_241218	HDPE (no PTFE)	20 mL	00350822044478	Grey	No	
092	0089_SW311_241218	Clear Plastic Bottle - Natural	125 mL	00070821218163	Green	No	
093	0089_SW406_241217	HDPE (no PTFE)	20 mL	00352312077021	Grey	No	
093	0089_SW406_241217	HDPE (no PTFE)	20 mL	00352312077150	Grey	No	
093	0089_SW406_241217	Clear Plastic Bottle - Natural	125 mL	00070522195124	Green	No	
094	0089_SW408_241217	HDPE (no PTFE)	20 mL	00352312076199	Grey	No	
094	0089_SW408_241217	HDPE (no PTFE)	20 mL	00350822044647	Grey	No	
094	0089_SW408_241217	Clear Plastic Bottle - Natural	125 mL	00070522195242	Green	No	
095	0089_SW410_241217	HDPE (no PTFE)	20 mL	00350822044667	Grey	No	
095	0089_SW410_241217	HDPE (no PTFE)	20 mL	00352312076894	Grey	No	
095	0089_SW410_241217	Clear Plastic Bottle - Natural	125 mL	00070522195108	Green	No	
096	0089_SW412_241218	HDPE (no PTFE)	20 mL	00352312076777	Grey	No	
096	0089_SW412_241218	HDPE (no PTFE)	20 mL	00352312077272	Grey	No	
096	0089_SW412_241218	Clear Plastic Bottle - Natural	125 mL	00070821218246	Green	No	
097	0089_SW414_241218	HDPE (no PTFE)	20 mL	00352312076647	Grey	No	
097	0089_SW414_241218	HDPE (no PTFE)	20 mL	00352312077100	Grey	No	
097	0089_SW414_241218	Clear Plastic Bottle - Natural	125 mL	00070821218123	Green	No	
098	0089_SW416_241218	HDPE (no PTFE)	20 mL	00352312077191	Grey	No	
098	0089_SW416_241218	HDPE (no PTFE)	20 mL	00352312076662	Grey	No	
098	0089_SW416_241218	Clear Plastic Bottle - Natural	125 mL	00070821218269	Green	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:
QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:
/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

099	0089_SW317_241217	HDPE (no PTFE)	20 mL	00352312076607	Grey	No	
099	0089_SW317_241217	HDPE (no PTFE)	20 mL	00352312077181	Grey	No	
099	0089_SW317_241217	Clear Plastic Bottle - Natural	125 mL	00070522195006	Green	No	
100	0089_SW318_241217	HDPE (no PTFE)	20 mL	00350822044574	Grey	No	
100	0089_SW318_241217	HDPE (no PTFE)	20 mL	00350822044514	Grey	No	
100	0089_SW318_241217	Clear Plastic Bottle - Natural	125 mL	00070522195233	Green	No	
101	0089_SW319_241217	HDPE (no PTFE)	20 mL	00352312076632	Grey	No	
101	0089_SW319_241217	HDPE (no PTFE)	20 mL	00352312076685	Grey	No	
101	0089_SW319_241217	Clear Plastic Bottle - Natural	125 mL	00070522195137	Green	No	
102	0089_PW304_241217	Clear Plastic Bottle - Natural	125 mL	00070522195315	Green	No	
102	0089_PW304_241217	HDPE (no PTFE)	20 mL	00350822044634	Grey	No	
102	0089_PW304_241217	HDPE (no PTFE)	20 mL	00350822044566	Grey	No	
103	0089_PW345_241217	Clear Plastic Bottle - Natural	125 mL	00070522195142	Green	No	
103	0089_PW345_241217	HDPE (no PTFE)	20 mL	00350822044568	Grey	No	
103	0089_PW345_241217	HDPE (no PTFE)	20 mL	00350822044728	Grey	No	
104	0089_PW367_241217	Clear Plastic Bottle - Natural	125 mL	00070522195192	Green	No	
104	0089_PW367_241217	HDPE (no PTFE)	20 mL	00350822044630	Grey	No	
104	0089_PW367_241217	HDPE (no PTFE)	20 mL	00350822044638	Grey	No	
105	0089_PW368_241217	Clear Plastic Bottle - Natural	125 mL	00070522195131	Green	No	
105	0089_PW368_241217	HDPE (no PTFE)	20 mL	00350822044594	Grey	No	
105	0089_PW368_241217	HDPE (no PTFE)	20 mL	00350822044727	Grey	No	
106	0089_PW369_241217	HDPE (no PTFE)	20 mL	00350822044755	Grey	No	
106	0089_PW369_241217	HDPE (no PTFE)	20 mL	00350822044527	Grey	No	
106	0089_PW369_241217	Clear Plastic Bottle - Natural	125 mL	00070522195200	Green	No	
107	0089_PW346_241217	Clear Plastic Bottle - Natural	125 mL	00070522195214	Green	No	
107	0089_PW346_241217	HDPE (no PTFE)	20 mL	00350822044567	Grey	No	
107	0089_PW346_241217	HDPE (no PTFE)	20 mL	00350822044537	Grey	No	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

108	0089_PW306_241218	HDPE (no PTFE)	20 mL	00352312076642	Grey	No	
108	0089_PW306_241218	HDPE (no PTFE)	20 mL	00352312076795	Grey	No	
108	0089_PW306_241218	Clear Plastic Bottle - Natural	125 mL	00070821218153	Green	No	
109	0089_PW405_241217	HDPE (no PTFE)	20 mL	00352312077110	Grey	No	
109	0089_PW405_241217	HDPE (no PTFE)	20 mL	00352312076891	Grey	No	
109	0089_PW405_241217	Clear Plastic Bottle - Natural	125 mL	00070522195036	Green	No	
110	0089_PW407_241217	HDPE (no PTFE)	20 mL	00352312076667	Grey	No	
110	0089_PW407_241217	HDPE (no PTFE)	20 mL	00352312076709	Grey	No	
110	0089_PW407_241217	Clear Plastic Bottle - Natural	125 mL	00070522195222	Green	No	
111	0089_PW409_241217	HDPE (no PTFE)	20 mL	00352312076790	Grey	No	
111	0089_PW409_241217	HDPE (no PTFE)	20 mL	00350822044606	Grey	No	
111	0089_PW409_241217	Clear Plastic Bottle - Natural	125 mL	00070522195285	Green	No	
112	0089_PW411_241218	HDPE (no PTFE)	20 mL	00352312076827	Grey	No	
112	0089_PW411_241218	HDPE (no PTFE)	20 mL	00352312076741	Grey	No	
112	0089_PW411_241218	Clear Plastic Bottle - Natural	125 mL	00070821218091	Green	No	
113	0089_PW413_241218	HDPE (no PTFE)	20 mL	00352312076809	Grey	No	
113	0089_PW413_241218	HDPE (no PTFE)	20 mL	00352312077462	Grey	No	
113	0089_PW413_241218	Clear Plastic Bottle - Natural	125 mL	00070821218242	Green	No	
114	0089_PW415_241218	HDPE (no PTFE)	20 mL	00350822044722	Grey	No	
114	0089_PW415_241218	HDPE (no PTFE)	20 mL	00350822044750	Grey	No	
114	0089_PW415_241218	Clear Plastic Bottle - Natural	125 mL	00070821218136	Green	No	
115	0089_PW374_241217	HDPE (no PTFE)	20 mL	00352312077337	Grey	No	
115	0089_PW374_241217	HDPE (no PTFE)	20 mL	00352312076742	Grey	No	
115	0089_PW374_241217	Clear Plastic Bottle - Natural	125 mL	00070522195037	Green	No	
116	0089_PW375_241217	HDPE (no PTFE)	20 mL	00352312075975	Grey	No	
116	0089_PW375_241217	HDPE (no PTFE)	20 mL	00352312076392	Grey	No	
116	0089_PW375_241217	Clear Plastic Bottle - Natural	125 mL	00070522195022	Green	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:
QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:
/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

117	0089_PW378_241217	Clear Plastic Bottle - Natural	125 mL	00070522195046	Green	No	
117	0089_PW378_241217	HDPE (no PTFE)	20 mL	00352312075746	Grey	No	
117	0089_PW378_241217	HDPE (no PTFE)	20 mL	00352312076555	Grey	No	
118	0089_QC101_241212	HDPE (no PTFE)	20 mL	00350822044576	Grey	No	
118	0089_QC101_241212	HDPE (no PTFE)	20 mL	00350822044702	Grey	No	
119	0089_QC401_241212	HDPE (no PTFE)	20 mL	00350822044661	Grey	No	
119	0089_QC401_241212	HDPE (no PTFE)	20 mL	00350822044534	Grey	No	
120	0089_QC102_241213	HDPE (no PTFE)	20 mL	00350822044580	Grey	No	
120	0089_QC102_241213	HDPE (no PTFE)	20 mL	00350822044615	Grey	No	
121	0089_QC103_241213	HDPE (no PTFE)	20 mL	00350822044506	Grey	No	
121	0089_QC103_241213	HDPE (no PTFE)	20 mL	00350822044725	Grey	No	
122	0089_QC104_241213	HDPE (no PTFE)	20 mL	00350822044734	Grey	No	
122	0089_QC104_241213	HDPE (no PTFE)	20 mL	00350822044555	Grey	No	
123	0089_QC402_241213	HDPE (no PTFE)	20 mL	00350822044691	Grey	No	
123	0089_QC402_241213	HDPE (no PTFE)	20 mL	00350822044737	Grey	No	
124	0089_QC105_241216	HDPE (no PTFE)	20 mL	00350822044624	Grey	No	
124	0089_QC105_241216	HDPE (no PTFE)	20 mL	00350822044714	Grey	No	
125	0089_QC106_241216	HDPE (no PTFE)	20 mL	00350822044590	Grey	No	
125	0089_QC106_241216	HDPE (no PTFE)	20 mL	00350822044505	Grey	No	
126	0089_MW500_241216	Clear Plastic Bottle - Natural	125 mL	00070522195298	Green	No	
126	0089_MW500_241216	HDPE (no PTFE)	20 mL	00350822044724	Grey	No	
126	0089_MW500_241216	HDPE (no PTFE)	20 mL	00350822044710	Grey	No	
127	0089_QC107_241216	HDPE (no PTFE)	20 mL	00350822044625	Grey	No	
127	0089_QC107_241216	HDPE (no PTFE)	20 mL	00350822044753	Grey	No	
128	0089_QC310_241216	HDPE (no PTFE)	20 mL	00350822044524	Grey	No	
128	0089_QC310_241216	HDPE (no PTFE)	20 mL	00350822044709	Grey	No	
129	0089_QC403_241216	HDPE (no PTFE)	20 mL	00350822044504	Grey	No	

CHAIN OF CUSTODY

COC#: 77239 ALS Laboratory: EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:
QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:
/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

129	0089_QC403_241216	HDPE (no PTFE)	20 mL	00350822044596	Grey	No	
130	0089_QC111_241217	HDPE (no PTFE)	20 mL	00350822044726	Grey	No	
130	0089_QC111_241217	HDPE (no PTFE)	20 mL	00350822044620	Grey	No	
131	0089_QC112_241217	HDPE Soil Jar	200 mL	00621122024679	Grey	No	
132	0089_QC113_241217	HDPE (no PTFE)	20 mL	00350822044474	Grey	No	
132	0089_QC113_241217	HDPE (no PTFE)	20 mL	00350822044613	Grey	No	
133	0089_QC115_241217	HDPE Soil Jar	200 mL	00621122024726	Grey	No	
134	0089_QC114_241217	HDPE (no PTFE)	20 mL	00350822044740	Grey	No	
134	0089_QC114_241217	HDPE (no PTFE)	20 mL	00350822044511	Grey	No	
135	0089_QC313_241217	HDPE (no PTFE)	20 mL	00350822044738	Grey	No	
135	0089_QC313_241217	HDPE (no PTFE)	20 mL	00350822044599	Grey	No	
136	0089_QC312_241217	HDPE (no PTFE)	20 mL	00350822044679	Grey	No	
136	0089_QC312_241217	HDPE (no PTFE)	20 mL	00350822044519	Grey	No	
137	0089_PW363_241218	Clear Plastic Bottle - Natural	125 mL	00070522194987	Green	No	
137	0089_PW363_241218	HDPE (no PTFE)	20 mL	00350822044681	Grey	No	
137	0089_PW363_241218	HDPE (no PTFE)	20 mL	00350822044517	Grey	No	
138	0089_QC119_241218	HDPE Soil Jar	200 mL	00621122024686	Grey	No	
139	0089_QC120_241218	HDPE (no PTFE)	20 mL	00350822044658	Grey	No	
139	0089_QC120_241218	HDPE (no PTFE)	20 mL	00350822044733	Grey	No	
140	0089_PW341_241218	Clear Plastic Bottle - Natural	125 mL	00070522195104	Green	No	
140	0089_PW341_241218	HDPE (no PTFE)	20 mL	00350822044783	Grey	No	
140	0089_PW341_241218	HDPE (no PTFE)	20 mL	00350822044627	Grey	No	
141	0089_QC121_241218	HDPE (no PTFE)	20 mL	00350822044729	Grey	No	
141	0089_QC121_241218	HDPE (no PTFE)	20 mL	00350822044633	Grey	No	
142	0089_PW362_241218	Clear Plastic Bottle - Natural	125 mL	00070522195264	Green	No	
142	0089_PW362_241218	HDPE (no PTFE)	20 mL	00350822044607	Grey	No	
142	0089_PW362_241218	HDPE (no PTFE)	20 mL	00350822044741	Grey	No	

CHAIN OF CUSTODY

COC#: **77239** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: Stirling TA KD

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

143	0089_PW340_241218	Clear Plastic Bottle - Natural	125 mL	00070522195308	Green	No	
143	0089_PW340_241218	HDPE (no PTFE)	20 mL	00350822044683	Grey	No	
143	0089_PW340_241218	HDPE (no PTFE)	20 mL	00350822044571	Grey	No	
144	0089_PW364_241218	Clear Plastic Bottle - Natural	125 mL	00070522195176	Green	No	
144	0089_PW364_241218	HDPE (no PTFE)	20 mL	00350822044686	Grey	No	
144	0089_PW364_241218	HDPE (no PTFE)	20 mL	00350822044551	Grey	No	
145	0089_PW335_241218	Clear Plastic Bottle - Natural	125 mL	00070522195269	Green	No	
145	0089_PW335_241218	HDPE (no PTFE)	20 mL	00350822044769	Grey	No	
145	0089_PW335_241218	HDPE (no PTFE)	20 mL	00350822044575	Grey	No	
146	0089_QC314_241218	HDPE (no PTFE)	20 mL	00350822044770	Grey	No	
146	0089_QC314_241218	HDPE (no PTFE)	20 mL	00350822044694	Grey	No	
147	0089_QC315_241218	HDPE (no PTFE)	20 mL	00352312077136	Grey	No	
147	0089_QC315_241218	HDPE (no PTFE)	20 mL	00352312077446	Grey	No	
148	0089_QC405_241218	HDPE (no PTFE)	20 mL	00352312076668	Grey	No	
148	0089_QC405_241218	HDPE (no PTFE)	20 mL	00352312076608	Grey	No	
149	0089_QC108_241217	HDPE (no PTFE)	20 mL	00350822044693	Grey	No	
149	0089_QC108_241217	HDPE (no PTFE)	20 mL	00350822044672	Grey	No	
150	0089_QC110_241217	HDPE (no PTFE)	20 mL	00352312075838	Grey	No	
150	0089_QC110_241217	HDPE (no PTFE)	20 mL	00352312075815	Grey	No	
151	0089_QC109_241217	HDPE Soil Jar	200 mL	00621122024786	Grey	No	
152	0089_SD378_241217	HDPE Soil Jar	200 mL	00621122024708	Grey	No	
153	0089_QC404_241217	HDPE (no PTFE)	20 mL	00352312076845	Grey	No	
153	0089_QC404_241217	HDPE (no PTFE)	20 mL	00352312076687	Grey	No	
154	0089_QC311_241217	HDPE (no PTFE)	20 mL	00352312076942	Grey	No	
154	0089_QC311_241217	HDPE (no PTFE)	20 mL	00352312077429	Grey	No	
155	0089_QC501_241219	HDPE (no PTFE)	20 mL	00352312076582	Grey	No	
155	0089_QC501_241219	HDPE (no PTFE)	20 mL	00352312075756	Grey	No	

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **EP2419185**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: 12641234 - PFAS OMP	Page	: 1 of 7
Order number	: 12641234	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 77239	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Stirling TA KD		
Sampler	: [redacted]		

Dates

Date Samples Received	: 20-Dec-2024 13:15	Issue Date	: 23-Dec-2024
Client Requested Due Date	: 07-Jan-2025	Scheduled Reporting Date	: **07-Jan-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 5	Temperature	: 7.9 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 161 / 161

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

EP2419185-155	: 19-Dec-2024 12:00	: 0089_QC501_241219 - TBW1899
EP2419185-159	: 19-Dec-2024 12:39	: 0089_QC502_241219 - TBW1894
EP2419185-160	: 19-Dec-2024 12:43	: 0089_QC503_241219 - TBW1901
EP2419185-161	: 19-Dec-2024 12:45	: 0089_QC504_241219 - TBW1898
EP2419185-162	: 19-Dec-2024 12:47	: 0089_QC505_241219 - TBW1900

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2419185-056	18-Dec-2024 14:22	0089_SD335_241218	✓	✓
EP2419185-057	18-Dec-2024 11:12	0089_SD340_241218	✓	✓
EP2419185-058	18-Dec-2024 09:59	0089_SD341_241218	✓	✓
EP2419185-059	18-Dec-2024 10:42	0089_SD362_241218	✓	✓
EP2419185-060	18-Dec-2024 09:22	0089_SD363_241218	✓	✓
EP2419185-061	18-Dec-2024 11:44	0089_SD364_241218	✓	✓
EP2419185-062	17-Dec-2024 12:49	0089_SD304_241217	✓	✓
EP2419185-063	17-Dec-2024 10:41	0089_SD345_241217	✓	✓
EP2419185-064	17-Dec-2024 11:20	0089_SD367_241217	✓	✓
EP2419185-065	17-Dec-2024 12:49	0089_SD368_241217	✓	✓
EP2419185-066	17-Dec-2024 09:34	0089_SD369_241217	✓	✓
EP2419185-067	17-Dec-2024 14:35	0089_SD346_241217	✓	✓
EP2419185-068	19-Dec-2024 12:33	0089_SD306_241218	✓	✓
EP2419185-069	19-Dec-2024 12:32	0089_SD307_241218	✓	✓
EP2419185-070	19-Dec-2024 12:34	0089_SD308_241218	✓	✓
EP2419185-071	19-Dec-2024 12:31	0089_SD314_241218	✓	✓
EP2419185-072	19-Dec-2024 12:33	0089_SD315_241218	✓	✓
EP2419185-073	19-Dec-2024 12:32	0089_SD316_241218	✓	✓
EP2419185-074	19-Dec-2024 11:45	0089_SD405_241217	✓	✓
EP2419185-075	19-Dec-2024 11:46	0089_SD407_241217	✓	✓
EP2419185-076	19-Dec-2024 11:46	0089_SD409_241217	✓	✓
EP2419185-077	19-Dec-2024 12:34	0089_SD411_241218	✓	✓
EP2419185-078	19-Dec-2024 12:35	0089_SD413_241218	✓	✓
EP2419185-079	19-Dec-2024 12:36	0089_SD415_241218	✓	✓
EP2419185-080	19-Dec-2024 11:43	0089_SD374_241217	✓	✓
EP2419185-081	19-Dec-2024 11:45	0089_SD375_241217	✓	✓
EP2419185-131	17-Dec-2024 10:42	0089_QC112_241217	✓	✓
EP2419185-133	17-Dec-2024 14:36	0089_QC115_241217	✓	✓
EP2419185-151	19-Dec-2024 11:44	0089_QC109_241217	✓	✓
EP2419185-152	19-Dec-2024 11:48	0089_SD378_241217	✓	✓

			SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2419185-158	19-Dec-2024 12:37	0089_QC118_241218	✓	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2419185-001	16-Dec-2024 13:32	0089_MW109_241216	✓	✓
EP2419185-002	16-Dec-2024 13:21	0089_MW112_241216	✓	✓
EP2419185-003	16-Dec-2024 13:05	0089_MW120_241216	✓	✓
EP2419185-004	16-Dec-2024 12:36	0089_MW121_241216	✓	✓
EP2419185-005	16-Dec-2024 12:45	0089_MW123_241216	✓	✓
EP2419185-006	18-Dec-2024 14:37	0089_MW124_241218	✓	✓
EP2419185-007	18-Dec-2024 11:06	0089_MW125_241218	✓	✓
EP2419185-008	18-Dec-2024 09:50	0089_MW126_241218	✓	✓
EP2419185-009	18-Dec-2024 09:05	0089_MW127_241218	✓	✓
EP2419185-010	16-Dec-2024 13:57	0089_MW128_241216	✓	✓
EP2419185-011	12-Dec-2024 15:20	0089_MW158_241212	✓	✓
EP2419185-012	12-Dec-2024 15:22	0089_MW161_241212	✓	✓
EP2419185-013	12-Dec-2024 15:19	0089_MW166_241212	✓	✓
EP2419185-014	12-Dec-2024 15:23	0089_MW171_241212	✓	✓
EP2419185-015	12-Dec-2024 12:39	0089_MW173_241212	✓	✓
EP2419185-016	12-Dec-2024 13:04	0089_MW193_241212	✓	✓
EP2419185-017	12-Dec-2024 11:04	0089_MW196_241212	✓	✓
EP2419185-018	12-Dec-2024 15:01	0089_MW199_241212	✓	✓
EP2419185-019	18-Dec-2024 12:51	0089_MW200_241218	✓	✓
EP2419185-020	13-Dec-2024 14:58	0089_MW203_241213	✓	✓
EP2419185-021	12-Dec-2024 11:33	0089_MW195D_241212	✓	✓
EP2419185-022	18-Dec-2024 12:25	0089_MW468_241218	✓	✓
EP2419185-023	17-Dec-2024 08:34	0089_MW288_241217	✓	✓
EP2419185-024	16-Dec-2024 15:07	0089_MW289_241216	✓	✓
EP2419185-025	16-Dec-2024 10:16	0089_MW214_241216	✓	✓
EP2419185-026	16-Dec-2024 09:47	0089_MW215_241216	✓	✓
EP2419185-027	16-Dec-2024 09:34	0089_MW216_241216	✓	✓
EP2419185-028	16-Dec-2024 09:01	0089_MW217_241216	✓	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2419185-029	16-Dec-2024 08:43	0089_MW220_241216	✓	✓
EP2419185-030	16-Dec-2024 08:30	0089_MW224_241216	✓	✓
EP2419185-031	16-Dec-2024 10:44	0089_MW225_241216	✓	✓
EP2419185-032	16-Dec-2024 11:30	0089_MW226_241216	✓	✓
EP2419185-033	18-Dec-2024 08:33	0089_MW227_241218	✓	✓
EP2419185-034	18-Dec-2024 08:10	0089_MW228_241218	✓	✓
EP2419185-035	16-Dec-2024 08:18	0089_MW282_241216	✓	✓
EP2419185-036	13-Dec-2024 12:48	0089_MW268_241213	✓	✓
EP2419185-037	13-Dec-2024 13:04	0089_MW269_241213	✓	✓
EP2419185-038	13-Dec-2024 10:44	0089_MW233_241213	✓	✓
EP2419185-039	13-Dec-2024 09:11	0089_MW236_241213	✓	✓
EP2419185-040	13-Dec-2024 08:48	0089_MW238_241213	✓	✓
EP2419185-041	13-Dec-2024 08:30	0089_MW239_241213	✓	✓
EP2419185-042	13-Dec-2024 09:00	0089_MW240_241213	✓	✓
EP2419185-043	13-Dec-2024 09:36	0089_MW242_241213	✓	✓
EP2419185-044	13-Dec-2024 08:01	0089_MW243_241213	✓	✓
EP2419185-045	13-Dec-2024 08:14	0089_MW245_241213	✓	✓
EP2419185-046	13-Dec-2024 09:49	0089_MW249_241213	✓	✓
EP2419185-047	13-Dec-2024 10:21	0089_MW496_241213	✓	✓
EP2419185-048	13-Dec-2024 10:03	0089_MW516_241213	✓	✓
EP2419185-049	13-Dec-2024 13:40	0089_MW255_241213	✓	✓
EP2419185-050	13-Dec-2024 13:25	0089_MW256_241213	✓	✓
EP2419185-051	13-Dec-2024 14:09	0089_MW257_241213	✓	✓
EP2419185-052	13-Dec-2024 13:58	0089_MW258_241213	✓	✓
EP2419185-053	13-Dec-2024 14:25	0089_MW259_241213	✓	✓
EP2419185-054	13-Dec-2024 11:44	0089_MW553_241213	✓	✓
EP2419185-055	13-Dec-2024 11:20	0089_MW010_241213	✓	✓
EP2419185-082	18-Dec-2024 14:49	0089_SW130_241218	✓	✓
EP2419185-083	18-Dec-2024 11:14	0089_SW132_241218	✓	✓
EP2419185-084	18-Dec-2024 10:05	0089_SW134_241218	✓	✓
EP2419185-085	17-Dec-2024 13:00	0089_SW305_241217	✓	✓
EP2419185-086	17-Dec-2024 10:31	0089_SW370_241217	✓	✓
EP2419185-087	17-Dec-2024 12:57	0089_SW371_241217	✓	✓
EP2419185-088	17-Dec-2024 13:01	0089_SW372_241217	✓	✓
EP2419185-089	17-Dec-2024 13:02	0089_SW373_241217	✓	✓
EP2419185-090	19-Dec-2024 12:15	0089_SW309_241218	✓	✓
EP2419185-091	19-Dec-2024 12:04	0089_SW310_241218	✓	✓
EP2419185-092	19-Dec-2024 12:18	0089_SW311_241218	✓	✓
EP2419185-093	19-Dec-2024 11:30	0089_SW406_241217	✓	✓
EP2419185-094	19-Dec-2024 11:20	0089_SW408_241217	✓	✓
EP2419185-095	19-Dec-2024 11:26	0089_SW410_241217	✓	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2419185-096	19-Dec-2024 12:23	0089_SW412_241218	✓	✓
EP2419185-097	19-Dec-2024 12:21	0089_SW414_241218	✓	✓
EP2419185-098	19-Dec-2024 12:22	0089_SW416_241218	✓	✓
EP2419185-099	19-Dec-2024 11:19	0089_SW317_241217	✓	✓
EP2419185-100	19-Dec-2024 11:12	0089_SW318_241217	✓	✓
EP2419185-101	19-Dec-2024 11:29	0089_SW319_241217	✓	✓
EP2419185-102	17-Dec-2024 12:54	0089_PW304_241217	✓	✓
EP2419185-103	17-Dec-2024 10:46	0089_PW345_241217	✓	✓
EP2419185-104	17-Dec-2024 11:25	0089_PW367_241217	✓	✓
EP2419185-105	17-Dec-2024 12:52	0089_PW368_241217	✓	✓
EP2419185-106	17-Dec-2024 09:36	0089_PW369_241217	✓	✓
EP2419185-107	17-Dec-2024 14:41	0089_PW346_241217	✓	✓
EP2419185-108	19-Dec-2024 12:05	0089_PW306_241218	✓	✓
EP2419185-109	19-Dec-2024 11:28	0089_PW405_241217	✓	✓
EP2419185-110	19-Dec-2024 11:18	0089_PW407_241217	✓	✓
EP2419185-111	19-Dec-2024 11:25	0089_PW409_241217	✓	✓
EP2419185-112	19-Dec-2024 12:17	0089_PW411_241218	✓	✓
EP2419185-113	19-Dec-2024 12:24	0089_PW413_241218	✓	✓
EP2419185-114	19-Dec-2024 12:25	0089_PW415_241218	✓	✓
EP2419185-115	19-Dec-2024 11:33	0089_PW374_241217	✓	✓
EP2419185-116	19-Dec-2024 11:13	0089_PW375_241217	✓	✓
EP2419185-117	19-Dec-2024 11:31	0089_PW378_241217	✓	✓
EP2419185-118	12-Dec-2024 11:39	0089_QC101_241212	✓	
EP2419185-119	12-Dec-2024 15:16	0089_QC401_241212	✓	
EP2419185-120	13-Dec-2024 08:33	0089_QC102_241213	✓	
EP2419185-121	13-Dec-2024 11:22	0089_QC103_241213	✓	
EP2419185-122	13-Dec-2024 12:49	0089_QC104_241213	✓	
EP2419185-123	13-Dec-2024 14:33	0089_QC402_241213	✓	
EP2419185-124	16-Dec-2024 09:50	0089_QC105_241216	✓	
EP2419185-125	16-Dec-2024 12:48	0089_QC106_241216	✓	
EP2419185-126	16-Dec-2024 13:43	0089_MW500_241216	✓	✓
EP2419185-127	16-Dec-2024 15:09	0089_QC107_241216	✓	
EP2419185-128	16-Dec-2024 15:19	0089_QC310_241216	✓	
EP2419185-129	16-Dec-2024 15:20	0089_QC403_241216	✓	
EP2419185-130	17-Dec-2024 10:33	0089_QC111_241217	✓	
EP2419185-132	17-Dec-2024 10:50	0089_QC113_241217	✓	
EP2419185-134	17-Dec-2024 14:42	0089_QC114_241217	✓	
EP2419185-135	17-Dec-2024 15:45	0089_QC313_241217	✓	
EP2419185-136	17-Dec-2024 15:46	0089_QC312_241217	✓	
EP2419185-137	18-Dec-2024 09:26	0089_PW363_241218	✓	✓
EP2419185-139	18-Dec-2024 10:07	0089_QC120_241218	✓	

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2419185-140	18-Dec-2024 10:14	0089_PW341_241218	✓	✓
EP2419185-141	18-Dec-2024 10:16	0089_QC121_241218	✓	
EP2419185-142	18-Dec-2024 10:45	0089_PW362_241218	✓	✓
EP2419185-143	18-Dec-2024 11:19	0089_PW340_241218	✓	✓
EP2419185-144	18-Dec-2024 11:49	0089_PW364_241218	✓	✓
EP2419185-145	18-Dec-2024 14:26	0089_PW335_241218	✓	✓
EP2419185-146	18-Dec-2024 14:57	0089_QC314_241218	✓	
EP2419185-147	18-Dec-2024 15:31	0089_QC315_241218	✓	
EP2419185-148	18-Dec-2024 15:33	0089_QC405_241218	✓	
EP2419185-149	19-Dec-2024 11:16	0089_QC108_241217	✓	
EP2419185-150	19-Dec-2024 11:17	0089_QC110_241217	✓	
EP2419185-153	19-Dec-2024 11:56	0089_QC404_241217	✓	
EP2419185-154	19-Dec-2024 11:58	0089_QC311_241217	✓	
EP2419185-155	19-Dec-2024 12:00	0089_QC501_241219 T...	✓	
EP2419185-156	19-Dec-2024 12:07	0089_QC116_241218	✓	
EP2419185-157	19-Dec-2024 12:20	0089_QC117_241218	✓	
EP2419185-159	19-Dec-2024 12:39	0089_QC502_241219 T...	✓	
EP2419185-160	19-Dec-2024 12:43	0089_QC503_241219 T...	✓	
EP2419185-161	19-Dec-2024 12:45	0089_QC504_241219 T...	✓	
EP2419185-162	19-Dec-2024 12:47	0089_QC505_241219 T...	✓	

Proactive Holding Time Report

The following table summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory.

Matrix: **WATER** Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method Client Sample ID(s)	Container	Due for extraction	Due for analysis	Samples Received Date	Samples Received Evaluation	Instructions Received Date	Instructions Received Evaluation
ED093F: Major Cations - Dissolved							
0089_MW158_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW161_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW166_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW171_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW173_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW193_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW195D_2412	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW196_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---
0089_MW199_24121	Clear Plastic Bottle - Natural	---	19-Dec-2024	20-Dec-2024	×	---	---

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP. LABREPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	GHD.LabReports@ghd.com
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- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	GHD.LabReports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	GHD.LabReports@ghd.com
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- Electronic SRN for ESdat (ESRN_ESDAT)	Email	GHD.LabReports@ghd.com

[redacted]

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- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

THOMAS PHILLIPS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

CERTIFICATE OF ANALYSIS

Work Order	: **EP2419185**	Page	: 1 of 95
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: Shenae Blakiston	Contact	: Angel Tam
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024 13:15
Order number	: 12641234	Date Analysis Commenced	: 23-Dec-2024
C-O-C number	: 77239	Issue Date	: 09-Jan-2025 11:35
Sampler	: Kiara De Landgrafft, Tasma Allen		
Site	: Stirling TA KD		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 161		
No. of samples analysed	: 161		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Canhuang Ke	Inorganics Supervisor	Perth Inorganics, Wangara, WA
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
John Horwood	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EP231X: High LCS and matrix spike recoveries deemed acceptable as all associated analyte results are <LOR.
- EP231X: LOR has been raised for particular analytes on certain samples due to matrix interference.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_241216	0089_MW112_241216	0089_MW120_241216	0089_MW121_241216	0089_MW123_241216
				Sampling date / time	16-Dec-2024 13:32	16-Dec-2024 13:21	16-Dec-2024 13:05	16-Dec-2024 12:36	16-Dec-2024 12:45
Compound	CAS Number	LOR	Unit		EP2419185-001	EP2419185-002	EP2419185-003	EP2419185-004	EP2419185-005
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		291	244	258	267	291
Total Alkalinity as CaCO3	---	1	mg/L		291	244	258	267	291
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		17	19	19	9	10
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		62	29	49	20	55
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		87	78	76	71	84
Magnesium	7439-95-4	1	mg/L		16	10	16	13	15
Sodium	7440-23-5	1	mg/L		38	18	27	14	43
Potassium	7440-09-7	1	mg/L		2	<1	4	2	2
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		7.92	6.09	6.93	6.09	7.57
ø Total Cations	---	0.01	meq/L		7.36	5.50	6.39	5.27	7.35
ø Ionic Balance	---	0.01	%		3.63	5.10	4.10	7.16	1.52
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		0.04	0.07	0.02	0.02	0.06
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		0.08	0.13	0.04	<0.02	0.04
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		1.81	7.86	2.90	0.28	0.59
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		0.07	1.89	1.40	0.04	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		0.74	23.2	3.30	0.92	0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_241216	0089_MW112_241216	0089_MW120_241216	0089_MW121_241216	0089_MW123_241216
				Sampling date / time	16-Dec-2024 13:32	16-Dec-2024 13:21	16-Dec-2024 13:05	16-Dec-2024 12:36	16-Dec-2024 12:45
Compound	CAS Number	LOR	Unit		EP2419185-001	EP2419185-002	EP2419185-003	EP2419185-004	EP2419185-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	**0.12**	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.03**	**0.18**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.24**	**0.69**	**0.09**	**0.03**	**0.09**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	**0.24**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.06**	**1.91**	**0.48**	**0.04**	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.36**	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_241216	0089_MW112_241216	0089_MW120_241216	0089_MW121_241216	0089_MW123_241216
				Sampling date / time	16-Dec-2024 13:32	16-Dec-2024 13:21	16-Dec-2024 13:05	16-Dec-2024 12:36	16-Dec-2024 12:45
Compound	CAS Number	LOR	Unit		EP2419185-001	EP2419185-002	EP2419185-003	EP2419185-004	EP2419185-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	0.09	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		3.09	36.8	8.23	1.33	0.81
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		2.55	31.1	6.20	1.20	0.61
Sum of PFAS (WA DER List)	---	0.01	µg/L		2.94	34.2	6.79	1.29	0.77
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		116	95.0	106	109	102
13C8-PFOA	---	0.02	%		106	105	115	110	97.1

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW124_241218	0089_MW125_241218	0089_MW126_241218	0089_MW127_241218	0089_MW128_241216
			Sampling date / time	18-Dec-2024 14:37	18-Dec-2024 11:06	18-Dec-2024 09:50	18-Dec-2024 09:05	16-Dec-2024 13:57
Compound	CAS Number	LOR	Unit	EP2419185-006	EP2419185-007	EP2419185-008	EP2419185-009	EP2419185-010
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	429	406	631	667	248
Total Alkalinity as CaCO3	---	1	mg/L	429	406	631	667	248
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	1730	1730	1380	1630	20
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	15000	14600	12200	13100	22
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	415	382	326	400	70
Magnesium	7439-95-4	1	mg/L	1040	994	871	1000	10
Sodium	7440-23-5	1	mg/L	7090	6850	5580	6220	23
Potassium	7440-09-7	1	mg/L	416	409	309	350	4
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	468	456	385	417	5.99
ø Total Cations	---	0.01	meq/L	425	409	338	382	5.42
ø Ionic Balance	---	0.01	%	4.74	5.40	6.48	4.39	5.02
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.08	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.08	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.30	<0.01	0.02	0.04
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	1.39

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_241218	0089_MW125_241218	0089_MW126_241218	0089_MW127_241218	0089_MW128_241216
				Sampling date / time	18-Dec-2024 14:37	18-Dec-2024 11:06	18-Dec-2024 09:50	18-Dec-2024 09:05	16-Dec-2024 13:57
Compound	CAS Number	LOR	Unit		EP2419185-006	EP2419185-007	EP2419185-008	EP2419185-009	EP2419185-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	0.10	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_241218	0089_MW125_241218	0089_MW126_241218	0089_MW127_241218	0089_MW128_241216
				Sampling date / time	18-Dec-2024 14:37	18-Dec-2024 11:06	18-Dec-2024 09:50	18-Dec-2024 09:05	16-Dec-2024 13:57
Compound	CAS Number	LOR	Unit		EP2419185-006	EP2419185-007	EP2419185-008	EP2419185-009	EP2419185-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	**0.58**	<0.01	**0.02**	**1.43**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.30**	<0.01	**0.02**	**1.43**
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	**0.48**	<0.01	**0.02**	**1.43**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**108**	**103**	**103**	**108**	**110**
13C8-PFOA	---	0.02	%		**104**	**103**	**103**	**100**	**105**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW158_241212	0089_MW161_241212	0089_MW166_241212	0089_MW171_241212	0089_MW173_241212
			Sampling date / time	12-Dec-2024 15:20	12-Dec-2024 15:22	12-Dec-2024 15:19	12-Dec-2024 15:23	12-Dec-2024 12:39
Compound	CAS Number	LOR	Unit	EP2419185-011	EP2419185-012	EP2419185-013	EP2419185-014	EP2419185-015
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	481	389	451	456	504
Total Alkalinity as CaCO3	---	1	mg/L	481	389	451	456	504
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	443	250	201	278	79
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	4720	617	1130	1600	707
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	193	88	132	108	239
Magnesium	7439-95-4	1	mg/L	344	94	113	177	142
Sodium	7440-23-5	1	mg/L	2350	371	569	939	328
Potassium	7440-09-7	1	mg/L	102	36	46	56	18
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	152	30.4	45.1	60.0	31.6
ø Total Cations	---	0.01	meq/L	143	29.2	41.8	62.2	38.3
ø Ionic Balance	---	0.01	%	3.12	2.01	3.75	1.80	9.55
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	1.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.04	1.22	0.09
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	0.70	0.07
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.16	0.46	4.91	1.16
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.09	0.86	0.18
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.60	6.88	2.55	2.14

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW158_241212	0089_MW161_241212	0089_MW166_241212	0089_MW171_241212	0089_MW173_241212
				Sampling date / time	12-Dec-2024 15:20	12-Dec-2024 15:22	12-Dec-2024 15:19	12-Dec-2024 15:23	12-Dec-2024 12:39
Compound	CAS Number	LOR	Unit		EP2419185-011	EP2419185-012	EP2419185-013	EP2419185-014	EP2419185-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.6**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.05**	**0.30**	**0.50**	**0.05**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.06**	**0.24**	**1.61**	**0.17**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	**0.13**	**0.14**	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	**0.08**	**0.32**	**0.10**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.04**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW158_241212	0089_MW161_241212	0089_MW166_241212	0089_MW171_241212	0089_MW173_241212
				Sampling date / time	12-Dec-2024 15:20	12-Dec-2024 15:22	12-Dec-2024 15:19	12-Dec-2024 15:23	12-Dec-2024 12:39
Compound	CAS Number	LOR	Unit		EP2419185-011	EP2419185-012	EP2419185-013	EP2419185-014	EP2419185-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	0.07	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	0.92	8.33	14.4	3.98
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	0.76	7.34	7.46	3.30
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	0.92	8.20	11.8	3.73
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		104	108	106	108	106
13C8-PFOA	---	0.02	%		102	106	102	110	99.9

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW193_241212	0089_MW196_241212	0089_MW199_241212	0089_MW200_241218	0089_MW203_241213
				Sampling date / time	12-Dec-2024 13:04	12-Dec-2024 11:04	12-Dec-2024 15:01	18-Dec-2024 12:51	13-Dec-2024 14:58
Compound	CAS Number	LOR	Unit		EP2419185-016	EP2419185-017	EP2419185-018	EP2419185-019	EP2419185-020
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		439	216	697	437	334
Total Alkalinity as CaCO3	---	1	mg/L		439	216	697	437	334
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		114	20	632	226	37
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		336	33	6860	1930	43
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		95	61	241	97	94
Magnesium	7439-95-4	1	mg/L		63	19	469	102	27
Sodium	7440-23-5	1	mg/L		192	25	3360	1210	50
Potassium	7440-09-7	1	mg/L		17	2	142	64	3
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		20.6	5.66	220	67.9	8.66
ø Total Cations	---	0.01	meq/L		18.7	5.75	200	67.5	9.16
ø Ionic Balance	---	0.01	%		4.86	0.73	4.80	0.28	2.85
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		0.12	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		0.31	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		0.60	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		5.24	<0.01	<0.01	<0.01	0.06
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		0.39	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		4.43	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW193_241212	0089_MW196_241212	0089_MW199_241212	0089_MW200_241218	0089_MW203_241213
				Sampling date / time	12-Dec-2024 13:04	12-Dec-2024 11:04	12-Dec-2024 15:01	18-Dec-2024 12:51	13-Dec-2024 14:58
Compound	CAS Number	LOR	Unit		EP2419185-016	EP2419185-017	EP2419185-018	EP2419185-019	EP2419185-020
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.12**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.76**	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.13**	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.36**	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW193_241212	0089_MW196_241212	0089_MW199_241212	0089_MW200_241218	0089_MW203_241213
				Sampling date / time	12-Dec-2024 13:04	12-Dec-2024 11:04	12-Dec-2024 15:01	18-Dec-2024 12:51	13-Dec-2024 14:58
Compound	CAS Number	LOR	Unit		EP2419185-016	EP2419185-017	EP2419185-018	EP2419185-019	EP2419185-020
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**12.4**	<0.01	<0.01	<0.01	**0.06**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**9.67**	<0.01	<0.01	<0.01	**0.06**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**11.4**	<0.01	<0.01	<0.01	**0.06**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**108**	**108**	**105**	**112**	**102**
13C8-PFOA	---	0.02	%		**112**	**105**	**102**	**110**	**98.4**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW195D_241212	0089_MW468_241218	0089_MW288_241217	0089_MW289_241216	0089_MW214_241216
				Sampling date / time	12-Dec-2024 11:33	18-Dec-2024 12:25	17-Dec-2024 08:34	16-Dec-2024 15:07	16-Dec-2024 10:16
Compound	CAS Number	LOR	Unit		EP2419185-021	EP2419185-022	EP2419185-023	EP2419185-024	EP2419185-025
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		393	570	343	274	355
Total Alkalinity as CaCO3	---	1	mg/L		393	570	343	274	355
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		758	696	30	55	71
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		5330	5840	46	62	540
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		251	285	100	80	154
Magnesium	7439-95-4	1	mg/L		460	525	18	22	36
Sodium	7440-23-5	1	mg/L		3230	3650	38	42	230
Potassium	7440-09-7	1	mg/L		139	162	4	6	7
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		174	191	8.78	8.37	23.8
ø Total Cations	---	0.01	meq/L		194	220	8.23	7.78	20.8
ø Ionic Balance	---	0.01	%		5.55	7.23	3.23	3.62	6.66
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	0.10	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	0.08	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	0.02	0.48	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	0.20	1.35	<0.01

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW195D_241212	0089_MW468_241218	0089_MW288_241217	0089_MW289_241216	0089_MW214_241216
			Sampling date / time	12-Dec-2024 11:33	18-Dec-2024 12:25	17-Dec-2024 08:34	16-Dec-2024 15:07	16-Dec-2024 10:16
Compound	CAS Number	LOR	Unit	EP2419185-021	EP2419185-022	EP2419185-023	EP2419185-024	EP2419185-025
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued								
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	**0.02**	**0.11**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	**0.03**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW195D_241212	0089_MW468_241218	0089_MW288_241217	0089_MW289_241216	0089_MW214_241216
				Sampling date / time	12-Dec-2024 11:33	18-Dec-2024 12:25	17-Dec-2024 08:34	16-Dec-2024 15:07	16-Dec-2024 10:16
Compound	CAS Number	LOR	Unit		EP2419185-021	EP2419185-022	EP2419185-023	EP2419185-024	EP2419185-025
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	0.24	2.20	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	0.22	1.83	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	0.24	2.10	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		104	109	109	103	106
13C8-PFOA	---	0.02	%		100	97.5	101	100	102

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW215_241216	0089_MW216_241216	0089_MW217_241216	0089_MW220_241216	0089_MW224_241216
			Sampling date / time	16-Dec-2024 09:47	16-Dec-2024 09:34	16-Dec-2024 09:01	16-Dec-2024 08:43	16-Dec-2024 08:30
Compound	CAS Number	LOR	Unit	EP2419185-026	EP2419185-027	EP2419185-028	EP2419185-029	EP2419185-030
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	276	372	278	278	251
Total Alkalinity as CaCO3	---	1	mg/L	276	372	278	278	251
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	86	176	52	26	30
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	232	565	51	92	114
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	99	120	112	88	63
Magnesium	7439-95-4	1	mg/L	26	48	15	15	24
Sodium	7440-23-5	1	mg/L	113	283	38	40	69
Potassium	7440-09-7	1	mg/L	8	13	12	9	4
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	13.8	27.0	8.08	8.69	8.86
ø Total Cations	---	0.01	meq/L	12.2	22.6	8.78	7.60	8.22
ø Ionic Balance	---	0.01	%	6.33	8.98	4.20	6.72	3.70
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.04	<0.02	0.03	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.12	<0.02	0.09	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.06	0.11	0.04	0.05	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.52	1.15	0.06	0.71	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.04	<0.02	0.06	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.04	0.26	1.05	11.0	<0.01

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW215_241216	0089_MW216_241216	0089_MW217_241216	0089_MW220_241216	0089_MW224_241216
				Sampling date / time	16-Dec-2024 09:47	16-Dec-2024 09:34	16-Dec-2024 09:01	16-Dec-2024 08:43	16-Dec-2024 08:30
Compound	CAS Number	LOR	Unit		EP2419185-026	EP2419185-027	EP2419185-028	EP2419185-029	EP2419185-030
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**3.3**	**1.4**	**0.1**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.03**	**11.9**	**6.05**	**0.19**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.09**	**10.1**	**5.76**	**0.24**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	**1.60**	**1.18**	**0.10**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	**0.12**	**0.57**	**0.09**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.05**	**0.04**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW215_241216	0089_MW216_241216	0089_MW217_241216	0089_MW220_241216	0089_MW224_241216
				Sampling date / time	16-Dec-2024 09:47	16-Dec-2024 09:34	16-Dec-2024 09:01	16-Dec-2024 08:43	16-Dec-2024 08:30
Compound	CAS Number	LOR	Unit		EP2419185-026	EP2419185-027	EP2419185-028	EP2419185-029	EP2419185-030
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	2.97	15.9	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	1.33	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		0.82	31.7	33.4	12.7	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		0.56	1.41	1.11	11.7	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		0.76	31.5	33.3	12.5	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		104	105	107	99.9	107
13C8-PFOA	---	0.02	%		105	106	106	104	105

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW225_241216	0089_MW226_241216	0089_MW227_241218	0089_MW228_241218	0089_MW282_241216
			Sampling date / time	16-Dec-2024 10:44	16-Dec-2024 11:30	18-Dec-2024 08:33	18-Dec-2024 08:10	16-Dec-2024 08:18
Compound	CAS Number	LOR	Unit	EP2419185-031	EP2419185-032	EP2419185-033	EP2419185-034	EP2419185-035
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	385	664	428	984	236
Total Alkalinity as CaCO3	---	1	mg/L	385	664	428	984	236
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	69	2280	239	512	853
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	714	13100	603	1910	6160
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	150	388	107	142	215
Magnesium	7439-95-4	1	mg/L	57	1080	71	291	489
Sodium	7440-23-5	1	mg/L	303	7880	342	1300	3580
Potassium	7440-09-7	1	mg/L	8	456	23	108	168
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	29.3	430	30.5	84.2	196
ø Total Cations	---	0.01	meq/L	25.6	463	26.6	90.3	211
ø Ionic Balance	---	0.01	%	6.76	3.63	6.80	3.52	3.62
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	0.04	0.03
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	0.20	0.17
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	0.13	0.22
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.01	<0.01	0.45	0.69
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	1.14

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW225_241216	0089_MW226_241216	0089_MW227_241218	0089_MW228_241218	0089_MW282_241216
				Sampling date / time	16-Dec-2024 10:44	16-Dec-2024 11:30	18-Dec-2024 08:33	18-Dec-2024 08:10	16-Dec-2024 08:18
Compound	CAS Number	LOR	Unit		EP2419185-031	EP2419185-032	EP2419185-033	EP2419185-034	EP2419185-035
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.9**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**3.01**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**2.63**	**0.38**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.74**	**0.09**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.13**	**0.08**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW225_241216	0089_MW226_241216	0089_MW227_241218	0089_MW228_241218	0089_MW282_241216
				Sampling date / time	16-Dec-2024 10:44	16-Dec-2024 11:30	18-Dec-2024 08:33	18-Dec-2024 08:10	16-Dec-2024 08:18
Compound	CAS Number	LOR	Unit		EP2419185-031	EP2419185-032	EP2419185-033	EP2419185-034	EP2419185-035
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	0.16	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	0.01	<0.01	8.39	2.86
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	0.01	<0.01	0.45	1.83
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	0.01	<0.01	8.22	2.61
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		112	114	115	110	108
13C8-PFOA	---	0.02	%		103	105	102	115	104

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW268_241213	0089_MW269_241213	0089_MW233_241213	0089_MW236_241213	0089_MW238_241213
			Sampling date / time	13-Dec-2024 12:48	13-Dec-2024 13:04	13-Dec-2024 10:44	13-Dec-2024 09:11	13-Dec-2024 08:48
Compound	CAS Number	LOR	Unit	EP2419185-036	EP2419185-037	EP2419185-038	EP2419185-039	EP2419185-040
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	2	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	551	442	178	292	271
Total Alkalinity as CaCO3	---	1	mg/L	551	442	179	292	271
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	518	171	12	22	48
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1090	309	33	37	39
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	143	84	58	96	94
Magnesium	7439-95-4	1	mg/L	137	62	8	16	14
Sodium	7440-23-5	1	mg/L	642	189	19	22	32
Potassium	7440-09-7	1	mg/L	37	18	3	<1	9
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	52.5	21.1	4.76	7.34	7.51
ø Total Cations	---	0.01	meq/L	47.3	18.0	4.46	7.06	7.46
ø Ionic Balance	---	0.01	%	5.27	8.01	3.27	1.89	0.33
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	0.12	<0.02	<0.02	0.08	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.30	0.10	<0.02	0.23	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.26	0.07	<0.02	0.27	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.82	0.78	0.05	18.1	0.04
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	0.24	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.42	0.36	39.4	<0.01

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW268_241213	0089_MW269_241213	0089_MW233_241213	0089_MW236_241213	0089_MW238_241213
				Sampling date / time	13-Dec-2024 12:48	13-Dec-2024 13:04	13-Dec-2024 10:44	13-Dec-2024 09:11	13-Dec-2024 08:48
Compound	CAS Number	LOR	Unit		EP2419185-036	EP2419185-037	EP2419185-038	EP2419185-039	EP2419185-040
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.04**	**0.04**	<0.02	**0.15**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.22**	**0.13**	<0.02	**0.68**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.29**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.03**	<0.01	**1.66**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**1.60**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW268_241213	0089_MW269_241213	0089_MW233_241213	0089_MW236_241213	0089_MW238_241213
				Sampling date / time	13-Dec-2024 12:48	13-Dec-2024 13:04	13-Dec-2024 10:44	13-Dec-2024 09:11	13-Dec-2024 08:48
Compound	CAS Number	LOR	Unit		EP2419185-036	EP2419185-037	EP2419185-038	EP2419185-039	EP2419185-040
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**1.76**	**1.57**	**0.41**	**62.7**	**0.04**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.82**	**1.20**	**0.41**	**57.5**	**0.04**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**1.38**	**1.50**	**0.41**	**60.5**	**0.04**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**113**	**102**	**103**	**104**	**105**
13C8-PFOA	---	0.02	%		**115**	**106**	**99.6**	**103**	**108**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW239_241213	0089_MW240_241213	0089_MW242_241213	0089_MW243_241213	0089_MW245_241213
			Sampling date / time	13-Dec-2024 08:30	13-Dec-2024 09:00	13-Dec-2024 09:36	13-Dec-2024 08:01	13-Dec-2024 08:14
Compound	CAS Number	LOR	Unit	EP2419185-041	EP2419185-042	EP2419185-043	EP2419185-044	EP2419185-045
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	4	7	<1	9	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	260	247	184	298	202
Total Alkalinity as CaCO3	---	1	mg/L	264	254	184	307	202
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	41	33	27	66	<1
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	33	30	29	55	11
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	83	103	63	120	62
Magnesium	7439-95-4	1	mg/L	11	10	11	17	6
Sodium	7440-23-5	1	mg/L	26	21	13	39	10
Potassium	7440-09-7	1	mg/L	3	4	1	6	2
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	7.06	6.61	5.06	9.06	4.35
ø Total Cations	---	0.01	meq/L	6.25	6.98	4.64	9.24	4.07
ø Ionic Balance	---	0.01	%	6.04	2.72	4.29	0.97	3.24
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.03	1.24	<0.01	0.16	0.02
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.01	<0.01	0.01

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW239_241213	0089_MW240_241213	0089_MW242_241213	0089_MW243_241213	0089_MW245_241213
				Sampling date / time	13-Dec-2024 08:30	13-Dec-2024 09:00	13-Dec-2024 09:36	13-Dec-2024 08:01	13-Dec-2024 08:14
Compound	CAS Number	LOR	Unit		EP2419185-041	EP2419185-042	EP2419185-043	EP2419185-044	EP2419185-045
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.10**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.18**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW239_241213	0089_MW240_241213	0089_MW242_241213	0089_MW243_241213	0089_MW245_241213
				Sampling date / time	13-Dec-2024 08:30	13-Dec-2024 09:00	13-Dec-2024 09:36	13-Dec-2024 08:01	13-Dec-2024 08:14
Compound	CAS Number	LOR	Unit		EP2419185-041	EP2419185-042	EP2419185-043	EP2419185-044	EP2419185-045
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.03**	**1.54**	**0.01**	**0.16**	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.03**	**1.24**	**0.01**	**0.16**	**0.03**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.03**	**1.52**	**0.01**	**0.16**	**0.03**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**102**	**115**	**103**	**107**	**101**
13C8-PFOA	---	0.02	%		**100**	**107**	**103**	**109**	**113**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW249_241213	0089_MW496_241213	0089_MW516_241213	0089_MW255_241213	0089_MW256_241213
			Sampling date / time	13-Dec-2024 09:49	13-Dec-2024 10:21	13-Dec-2024 10:03	13-Dec-2024 13:40	13-Dec-2024 13:25
Compound	CAS Number	LOR	Unit	EP2419185-046	EP2419185-047	EP2419185-048	EP2419185-049	EP2419185-050
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	9	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	433	410	550	345	430
Total Alkalinity as CaCO3	---	1	mg/L	433	410	550	354	430
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	57	103	28	34	26
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	166	170	58	55	228
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	98	77	126	96	148
Magnesium	7439-95-4	1	mg/L	40	40	38	17	23
Sodium	7440-23-5	1	mg/L	100	127	54	55	97
Potassium	7440-09-7	1	mg/L	7	12	12	4	5
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	14.5	15.1	13.2	9.33	15.6
ø Total Cations	---	0.01	meq/L	12.7	13.0	12.1	8.68	13.6
ø Ionic Balance	---	0.01	%	6.64	7.71	4.50	3.60	6.64
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	0.22	0.83
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.04	0.03	0.64	2.39
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.05	0.03	0.52	2.25
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.18	0.81	0.82	8.10	8.68
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.08	0.02	<0.02	0.21
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.10	8.18	5.92	0.34	5.47

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW249_241213	0089_MW496_241213	0089_MW516_241213	0089_MW255_241213	0089_MW256_241213
				Sampling date / time	13-Dec-2024 09:49	13-Dec-2024 10:21	13-Dec-2024 10:03	13-Dec-2024 13:40	13-Dec-2024 13:25
Compound	CAS Number	LOR	Unit		EP2419185-046	EP2419185-047	EP2419185-048	EP2419185-049	EP2419185-050
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.3	<0.5	**0.2**	**0.6**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.26**	**1.11**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.11**	**0.06**	**1.14**	**4.77**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.12**	**0.40**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.08**	**0.03**	**0.03**	**0.36**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.04**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW249_241213	0089_MW496_241213	0089_MW516_241213	0089_MW255_241213	0089_MW256_241213
				Sampling date / time	13-Dec-2024 09:49	13-Dec-2024 10:21	13-Dec-2024 10:03	13-Dec-2024 13:40	13-Dec-2024 13:25
Compound	CAS Number	LOR	Unit		EP2419185-046	EP2419185-047	EP2419185-048	EP2419185-049	EP2419185-050
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	0.38
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		0.28	9.35	6.91	11.6	27.6
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		0.28	8.99	6.74	8.44	14.2
Sum of PFAS (WA DER List)	---	0.01	µg/L		0.28	9.22	6.86	10.8	24.2
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		106	108	104	106	103
13C8-PFOA	---	0.02	%		108	110	106	115	109

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW257_241213	0089_MW258_241213	0089_MW259_241213	0089_MW553_241213	0089_MW010_241213
			Sampling date / time	13-Dec-2024 14:09	13-Dec-2024 13:58	13-Dec-2024 14:25	13-Dec-2024 11:44	13-Dec-2024 11:20
Compound	CAS Number	LOR	Unit	EP2419185-051	EP2419185-052	EP2419185-053	EP2419185-054	EP2419185-055
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	3	<1	16
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	191	488	241	347	318
Total Alkalinity as CaCO3	---	1	mg/L	191	488	244	347	335
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	18	91	14	35	46
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	30	102	22	96	197
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	58	119	72	115	88
Magnesium	7439-95-4	1	mg/L	7	32	11	16	25
Sodium	7440-23-5	1	mg/L	21	73	16	62	116
Potassium	7440-09-7	1	mg/L	4	15	2	3	8
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	5.04	14.5	5.79	10.4	13.2
ø Total Cations	---	0.01	meq/L	4.49	12.1	5.24	9.83	11.7
ø Ionic Balance	---	0.01	%	5.79	8.97	4.91	2.68	6.06
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	2.22	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	5.22	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	4.34	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.05	15.0	0.02	0.06	0.05
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.83	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.19	11.1	0.06	<0.01	<0.01

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW257_241213	0089_MW258_241213	0089_MW259_241213	0089_MW553_241213	0089_MW010_241213
				Sampling date / time	13-Dec-2024 14:09	13-Dec-2024 13:58	13-Dec-2024 14:25	13-Dec-2024 11:44	13-Dec-2024 11:20
Compound	CAS Number	LOR	Unit		EP2419185-051	EP2419185-052	EP2419185-053	EP2419185-054	EP2419185-055
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	1.3	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		0.17	2.28	0.03	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		0.09	7.40	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	0.82	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		0.01	0.72	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW257_241213	0089_MW258_241213	0089_MW259_241213	0089_MW553_241213	0089_MW010_241213
				Sampling date / time	13-Dec-2024 14:09	13-Dec-2024 13:58	13-Dec-2024 14:25	13-Dec-2024 11:44	13-Dec-2024 11:20
Compound	CAS Number	LOR	Unit		EP2419185-051	EP2419185-052	EP2419185-053	EP2419185-054	EP2419185-055
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	0.12	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		0.51	51.4	0.11	0.06	0.05
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		0.24	26.1	0.08	0.06	0.05
Sum of PFAS (WA DER List)	---	0.01	µg/L		0.51	44.0	0.11	0.06	0.05
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		109	104	118	112	112
13C8-PFOA	---	0.02	%		109	103	110	114	106

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_QC101_241212	0089_QC102_241213	0089_QC103_241213	0089_QC104_241213	0089_QC105_241216
			Sampling date / time	12-Dec-2024 11:39	13-Dec-2024 08:33	13-Dec-2024 11:22	13-Dec-2024 12:49	16-Dec-2024 09:50
Compound	CAS Number	LOR	Unit	EP2419185-118	EP2419185-120	EP2419185-121	EP2419185-122	EP2419185-124
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	**0.11**	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	**0.30**	**0.04**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	**0.27**	**0.07**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	**0.03**	**0.06**	**0.72**	**0.52**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	**0.03**	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	**0.21**	**0.10**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC101_241212	0089_QC102_241213	0089_QC103_241213	0089_QC104_241213	0089_QC105_241216
				Sampling date / time	12-Dec-2024 11:39	13-Dec-2024 08:33	13-Dec-2024 11:22	13-Dec-2024 12:49	16-Dec-2024 09:50
Compound	CAS Number	LOR	Unit		EP2419185-118	EP2419185-120	EP2419185-121	EP2419185-122	EP2419185-124
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	0.03	0.06	1.64	0.80
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	0.03	0.06	0.72	0.52
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	0.03	0.06	1.26	0.73
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		110	107	108	102	105
13C8-PFOA	---	0.02	%		106	96.7	105	103	102

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_QC106_241216	0089_MW500_241216	0089_QC107_241216	0089_QC113_241217	0089_QC114_241217
			Sampling date / time	16-Dec-2024 12:48	16-Dec-2024 13:43	16-Dec-2024 15:09	17-Dec-2024 10:50	17-Dec-2024 14:42
Compound	CAS Number	LOR	Unit	EP2419185-125	EP2419185-126	EP2419185-127	EP2419185-132	EP2419185-134
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	----	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	----	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	----	381	----	----	----
Total Alkalinity as CaCO3	---	1	mg/L	----	381	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	----	27	----	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	----	42	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	----	123	----	----	----
Magnesium	7439-95-4	1	mg/L	----	16	----	----	----
Sodium	7440-23-5	1	mg/L	----	29	----	----	----
Potassium	7440-09-7	1	mg/L	----	2	----	----	----
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	----	9.36	----	----	----
ø Total Cations	---	0.01	meq/L	----	8.77	----	----	----
ø Ionic Balance	---	0.01	%	----	3.27	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.31	0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.06	0.96	0.09	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.56	0.08	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.47	13.1	0.45	<0.01	0.20
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	2.04	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	61.6	1.24	0.07	0.40

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC106_241216	0089_MW500_241216	0089_QC107_241216	0089_QC113_241217	0089_QC114_241217
				Sampling date / time	16-Dec-2024 12:48	16-Dec-2024 13:43	16-Dec-2024 15:09	17-Dec-2024 10:50	17-Dec-2024 14:42
Compound	CAS Number	LOR	Unit		EP2419185-125	EP2419185-126	EP2419185-127	EP2419185-132	EP2419185-134
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.04	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.62**	**0.03**	<0.02	**0.19**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	**2.80**	**0.10**	<0.02	**0.18**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.25**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	**0.88**	**0.03**	<0.01	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC106_241216	0089_MW500_241216	0089_QC107_241216	0089_QC113_241217	0089_QC114_241217
				Sampling date / time	16-Dec-2024 12:48	16-Dec-2024 13:43	16-Dec-2024 15:09	17-Dec-2024 10:50	17-Dec-2024 14:42
Compound	CAS Number	LOR	Unit		EP2419185-125	EP2419185-126	EP2419185-127	EP2419185-132	EP2419185-134
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.67**	**83.4**	**2.04**	**0.07**	**0.98**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.49**	**74.7**	**1.69**	**0.07**	**0.60**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.63**	**80.5**	**1.94**	**0.07**	**0.98**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**107**	**94.6**	**112**	**104**	**101**
13C8-PFOA	---	0.02	%		**104**	**106**	**102**	**96.8**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_PW363_241218	0089_PW341_241218	0089_QC121_241218	0089_PW362_241218	0089_PW340_241218
			Sampling date / time	18-Dec-2024 09:26	18-Dec-2024 10:14	18-Dec-2024 10:16	18-Dec-2024 10:45	18-Dec-2024 11:19
Compound	CAS Number	LOR	Unit	EP2419185-137	EP2419185-140	EP2419185-141	EP2419185-142	EP2419185-143
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	----	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	----	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	152	101	----	132	108
Total Alkalinity as CaCO3	---	1	mg/L	152	101	----	132	108
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2840	2860	----	2850	2930
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	18400	17800	----	17900	18000
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	460	448	----	471	466
Magnesium	7439-95-4	1	mg/L	1460	1440	----	1490	1500
Sodium	7440-23-5	1	mg/L	10800	10600	----	11000	11000
Potassium	7440-09-7	1	mg/L	608	597	----	619	625
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	581	564	----	567	571
ø Total Cations	---	0.01	meq/L	628	617	----	640	641
ø Ionic Balance	---	0.01	%	3.90	4.53	----	6.09	5.80
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.02	0.02	0.03

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_PW363_241218	0089_PW341_241218	0089_QC121_241218	0089_PW362_241218	0089_PW340_241218
				Sampling date / time	18-Dec-2024 09:26	18-Dec-2024 10:14	18-Dec-2024 10:16	18-Dec-2024 10:45	18-Dec-2024 11:19
Compound	CAS Number	LOR	Unit		EP2419185-137	EP2419185-140	EP2419185-141	EP2419185-142	EP2419185-143
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_PW363_241218	0089_PW341_241218	0089_QC121_241218	0089_PW362_241218	0089_PW340_241218
				Sampling date / time	18-Dec-2024 09:26	18-Dec-2024 10:14	18-Dec-2024 10:16	18-Dec-2024 10:45	18-Dec-2024 11:19
Compound	CAS Number	LOR	Unit		EP2419185-137	EP2419185-140	EP2419185-141	EP2419185-142	EP2419185-143
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.02**	**0.02**	**0.02**	**0.02**	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.02**	**0.02**	**0.02**	**0.03**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.02**	**0.02**	**0.02**	**0.02**	**0.03**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**103**	**105**	**109**	**107**	**110**
13C8-PFOA	---	0.02	%		**106**	**103**	**102**	**101**	**106**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_PW364_241218	0089_PW335_241218	---	---	---
			Sampling date / time	18-Dec-2024 11:49	18-Dec-2024 14:26	---	---	---
Compound	CAS Number	LOR	Unit	EP2419185-144	EP2419185-145	------	------	------
				Result	Result	---	---	---
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	---	---	---
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	---	---	---
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	104	112	---	---	---
Total Alkalinity as CaCO3	---	1	mg/L	104	112	---	---	---
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2850	2840	---	---	---
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	18200	18300	---	---	---
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	457	468	---	---	---
Magnesium	7439-95-4	1	mg/L	1470	1520	---	---	---
Sodium	7440-23-5	1	mg/L	10900	11100	---	---	---
Potassium	7440-09-7	1	mg/L	616	636	---	---	---
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	575	578	---	---	---
ø Total Cations	---	0.01	meq/L	634	648	---	---	---
ø Ionic Balance	---	0.01	%	4.87	5.71	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	---	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.02	---	---	---

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_PW364_241218	0089_PW335_241218	----	----	----
				Sampling date / time	18-Dec-2024 11:49	18-Dec-2024 14:26	----	----	----
Compound	CAS Number	LOR	Unit		EP2419185-144	EP2419185-145	----	----	----
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_PW364_241218	0089_PW335_241218	---	---	---
				Sampling date / time	18-Dec-2024 11:49	18-Dec-2024 14:26	---	---	---
Compound	CAS Number	LOR	Unit		EP2419185-144	EP2419185-145	------	-------	-------
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.01**	**0.02**	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	**0.02**	---	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.01**	**0.02**	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**108**	**106**	---	---	---
13C8-PFOA	---	0.02	%		**102**	**103**	---	---	---

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0089_QC401_241212	0089_QC402_241213	0089_QC310_241216	0089_QC403_241216	0089_QC313_241217
			Sampling date / time	12-Dec-2024 15:16	13-Dec-2024 14:33	16-Dec-2024 15:19	16-Dec-2024 15:20	17-Dec-2024 15:45
Compound	CAS Number	LOR	Unit	EP2419185-119	EP2419185-123	EP2419185-128	EP2419185-129	EP2419185-135
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC401_241212	0089_QC402_241213	0089_QC310_241216	0089_QC403_241216	0089_QC313_241217
				Sampling date / time	12-Dec-2024 15:16	13-Dec-2024 14:33	16-Dec-2024 15:19	16-Dec-2024 15:20	17-Dec-2024 15:45
Compound	CAS Number	LOR	Unit		EP2419185-119	EP2419185-123	EP2419185-128	EP2419185-129	EP2419185-135
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**102**	**108**	**105**	**112**	**111**
13C8-PFOA	---	0.02	%		**101**	**107**	**106**	**110**	**102**

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0089_QC312_241217	0089_QC314_241218	0089_QC315_241218	0089_QC405_241218	0089_QC404_241217
				Sampling date / time	17-Dec-2024 15:46	18-Dec-2024 14:57	18-Dec-2024 15:31	18-Dec-2024 15:33	19-Dec-2024 11:56
					EP2419185-136	EP2419185-146	EP2419185-147	EP2419185-148	EP2419185-153
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC312_241217	0089_QC314_241218	0089_QC315_241218	0089_QC405_241218	0089_QC404_241217
				Sampling date / time	17-Dec-2024 15:46	18-Dec-2024 14:57	18-Dec-2024 15:31	18-Dec-2024 15:33	19-Dec-2024 11:56
Compound	CAS Number	LOR	Unit		EP2419185-136	EP2419185-146	EP2419185-147	EP2419185-148	EP2419185-153
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**112**	**110**	**108**	**112**	**113**
13C8-PFOA	---	0.02	%		**106**	**102**	**103**	**105**	**109**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)

				Sample ID	0089_QC311_241217	0089_QC501_241219 TBW1899	0089_QC502_241219 TBW1894	0089_QC503_241219 TBW1901	0089_QC504_241219 TBW1898
				Sampling date / time	19-Dec-2024 11:58	19-Dec-2024 12:00	19-Dec-2024 12:39	19-Dec-2024 12:43	19-Dec-2024 12:45
Compound	CAS Number	LOR	Unit		EP2419185-154	EP2419185-155	EP2419185-159	EP2419185-160	EP2419185-161
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC311_241217	0089_QC501_241219 TBW1899	0089_QC502_241219 TBW1894	0089_QC503_241219 TBW1901	0089_QC504_241219 TBW1898
				Sampling date / time	19-Dec-2024 11:58	19-Dec-2024 12:00	19-Dec-2024 12:39	19-Dec-2024 12:43	19-Dec-2024 12:45
Compound	CAS Number	LOR	Unit		EP2419185-154	EP2419185-155	EP2419185-159	EP2419185-160	EP2419185-161
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**109**	**106**	**101**	**101**	**107**
13C8-PFOA	---	0.02	%		**108**	**107**	**104**	**98.9**	**104**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC505_241219 TBW1900	---	---	---	---
				Sampling date / time	19-Dec-2024 12:47	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419185-162	---	---	---	---
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	---	---	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	---	---	---	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC505_241219 TBW1900	---	---	---	---
				Sampling date / time	19-Dec-2024 12:47	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419185-162	---	---	---	---
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	---	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	---	---	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	---	---	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	---	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		102	---	---	---	---
13C8-PFOA	---	0.02	%		105	---	---	---	---

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_241218	0089_SD340_241218	0089_SD341_241218	0089_SD362_241218	0089_SD363_241218
				Sampling date / time	18-Dec-2024 14:22	18-Dec-2024 11:12	18-Dec-2024 09:59	18-Dec-2024 10:42	18-Dec-2024 09:22
Compound	CAS Number	LOR	Unit		EP2419185-056	EP2419185-057	EP2419185-058	EP2419185-059	EP2419185-060
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		35.8	30.8	33.8	30.7	31.0
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_241218	0089_SD340_241218	0089_SD341_241218	0089_SD362_241218	0089_SD363_241218
				Sampling date / time	18-Dec-2024 14:22	18-Dec-2024 11:12	18-Dec-2024 09:59	18-Dec-2024 10:42	18-Dec-2024 09:22
Compound	CAS Number	LOR	Unit		EP2419185-056	EP2419185-057	EP2419185-058	EP2419185-059	EP2419185-060
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**107**	**123**	**110**	**104**	**112**
13C8-PFOA	---	0.0002	%		**112**	**118**	**110**	**116**	**108**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_241218	0089_SD304_241217	0089_SD345_241217	0089_SD367_241217	0089_SD368_241217
				Sampling date / time	18-Dec-2024 11:44	17-Dec-2024 12:49	17-Dec-2024 10:41	17-Dec-2024 11:20	17-Dec-2024 12:49
Compound	CAS Number	LOR	Unit		EP2419185-061	EP2419185-062	EP2419185-063	EP2419185-064	EP2419185-065
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		**31.8**	**34.1**	**34.1**	**34.0**	**37.8**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_241218	0089_SD304_241217	0089_SD345_241217	0089_SD367_241217	0089_SD368_241217
				Sampling date / time	18-Dec-2024 11:44	17-Dec-2024 12:49	17-Dec-2024 10:41	17-Dec-2024 11:20	17-Dec-2024 12:49
Compound	CAS Number	LOR	Unit		EP2419185-061	EP2419185-062	EP2419185-063	EP2419185-064	EP2419185-065
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**114**	**110**	**114**	**110**	**114**
13C8-PFOA	---	0.0002	%		**112**	**112**	**110**	**112**	**112**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD369_241217	0089_SD346_241217	0089_SD306_241218	0089_SD307_241218	0089_SD308_241218
				Sampling date / time	17-Dec-2024 09:34	17-Dec-2024 14:35	19-Dec-2024 12:33	19-Dec-2024 12:32	19-Dec-2024 12:34
Compound	CAS Number	LOR	Unit		EP2419185-066	EP2419185-067	EP2419185-068	EP2419185-069	EP2419185-070
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		36.6	36.7	24.8	16.4	5.3
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD369_241217	0089_SD346_241217	0089_SD306_241218	0089_SD307_241218	0089_SD308_241218
				Sampling date / time	17-Dec-2024 09:34	17-Dec-2024 14:35	19-Dec-2024 12:33	19-Dec-2024 12:32	19-Dec-2024 12:34
Compound	CAS Number	LOR	Unit		EP2419185-066	EP2419185-067	EP2419185-068	EP2419185-069	EP2419185-070
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		110	113	110	110	109
13C8-PFOA	---	0.0002	%		112	116	106	106	107

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD314_241218	0089_SD315_241218	0089_SD316_241218	0089_SD405_241217	0089_SD407_241217
			Sampling date / time	19-Dec-2024 12:31	19-Dec-2024 12:33	19-Dec-2024 12:32	19-Dec-2024 11:45	19-Dec-2024 11:46
Compound	CAS Number	LOR	Unit	EP2419185-071	EP2419185-072	EP2419185-073	EP2419185-074	EP2419185-075
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	22.6	20.0	4.2	19.7	30.8
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	0.0003
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD314_241218	0089_SD315_241218	0089_SD316_241218	0089_SD405_241217	0089_SD407_241217
				Sampling date / time	19-Dec-2024 12:31	19-Dec-2024 12:33	19-Dec-2024 12:32	19-Dec-2024 11:45	19-Dec-2024 11:46
Compound	CAS Number	LOR	Unit		EP2419185-071	EP2419185-072	EP2419185-073	EP2419185-074	EP2419185-075
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**104**	**111**	**109**	**114**	**108**
13C8-PFOA	---	0.0002	%		**105**	**108**	**108**	**112**	**109**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD409_241217	0089_SD411_241218	0089_SD413_241218	0089_SD415_241218	0089_SD374_241217
			Sampling date / time	19-Dec-2024 11:46	19-Dec-2024 12:34	19-Dec-2024 12:35	19-Dec-2024 12:36	19-Dec-2024 11:43
Compound	CAS Number	LOR	Unit	EP2419185-076	EP2419185-077	EP2419185-078	EP2419185-079	EP2419185-080
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	36.2	21.6	25.8	23.3	19.2
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD409_241217	0089_SD411_241218	0089_SD413_241218	0089_SD415_241218	0089_SD374_241217
				Sampling date / time	19-Dec-2024 11:46	19-Dec-2024 12:34	19-Dec-2024 12:35	19-Dec-2024 12:36	19-Dec-2024 11:43
Compound	CAS Number	LOR	Unit		EP2419185-076	EP2419185-077	EP2419185-078	EP2419185-079	EP2419185-080
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		111	111	106	108	110
13C8-PFOA	---	0.0002	%		108	110	107	110	114

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD375_241217	0089_QC112_241217	0089_QC115_241217	0089_QC109_241217	0089_SD378_241217
				Sampling date / time	19-Dec-2024 11:45	17-Dec-2024 10:42	17-Dec-2024 14:36	19-Dec-2024 11:44	19-Dec-2024 11:48
Compound	CAS Number	LOR	Unit		EP2419185-081	EP2419185-131	EP2419185-133	EP2419185-151	EP2419185-152
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		**22.3**	**35.8**	**36.2**	**13.9**	**19.3**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0010**	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD375_241217	0089_QC112_241217	0089_QC115_241217	0089_QC109_241217	0089_SD378_241217
				Sampling date / time	19-Dec-2024 11:45	17-Dec-2024 10:42	17-Dec-2024 14:36	19-Dec-2024 11:44	19-Dec-2024 11:48
Compound	CAS Number	LOR	Unit		EP2419185-081	EP2419185-131	EP2419185-133	EP2419185-151	EP2419185-152
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	0.0012	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	0.0012	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	0.0012	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		112	107	122	114	114
13C8-PFOA	---	0.0002	%		102	112	119	112	116

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_QC118_241218	---	---	---	---
			Sampling date / time	19-Dec-2024 12:37	---	---	---	---
Compound	CAS Number	LOR	Unit	EP2419185-158	---	---	---	---
				Result	---	---	---	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	26.7	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_QC118_241218	---	---	---	---
				Sampling date / time	19-Dec-2024 12:37	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419185-158	---	---	---	---
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	---	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		115	---	---	---	---
13C8-PFOA	---	0.0002	%		110	---	---	---	---

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_241218	0089_SW132_241218	0089_SW134_241218	0089_SW305_241217	0089_SW370_241217
				Sampling date / time	18-Dec-2024 14:49	18-Dec-2024 11:14	18-Dec-2024 10:05	17-Dec-2024 13:00	17-Dec-2024 10:31
Compound	CAS Number	LOR	Unit		EP2419185-082	EP2419185-083	EP2419185-084	EP2419185-085	EP2419185-086
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		123	130	134	136	160
Total Alkalinity as CaCO3	---	1	mg/L		123	130	134	136	160
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2720	2810	2660	2670	2620
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		18200	17900	18300	17400	17100
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		446	457	437	427	434
Magnesium	7439-95-4	1	mg/L		1430	1460	1400	1370	1360
Sodium	7440-23-5	1	mg/L		10600	10900	10400	10200	10100
Potassium	7440-09-7	1	mg/L		593	606	578	563	557
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		572	566	574	549	540
ø Total Cations	---	0.01	meq/L		616	632	604	592	587
ø Ionic Balance	---	0.01	%		3.68	5.55	2.54	3.77	4.17
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	0.01	0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_241218	0089_SW132_241218	0089_SW134_241218	0089_SW305_241217	0089_SW370_241217
				Sampling date / time	18-Dec-2024 14:49	18-Dec-2024 11:14	18-Dec-2024 10:05	17-Dec-2024 13:00	17-Dec-2024 10:31
Compound	CAS Number	LOR	Unit		EP2419185-082	EP2419185-083	EP2419185-084	EP2419185-085	EP2419185-086
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_241218	0089_SW132_241218	0089_SW134_241218	0089_SW305_241217	0089_SW370_241217
				Sampling date / time	18-Dec-2024 14:49	18-Dec-2024 11:14	18-Dec-2024 10:05	17-Dec-2024 13:00	17-Dec-2024 10:31
Compound	CAS Number	LOR	Unit		EP2419185-082	EP2419185-083	EP2419185-084	EP2419185-085	EP2419185-086
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	0.01	0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	0.01	0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	0.01	0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		110	110	110	102	112
13C8-PFOA	---	0.02	%		107	110	112	107	113

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0089_SW371_241217	0089_SW372_241217	0089_SW373_241217	0089_SW309_241218	0089_SW310_241218
			Sampling date / time	17-Dec-2024 12:57	17-Dec-2024 13:01	17-Dec-2024 13:02	19-Dec-2024 12:15	19-Dec-2024 12:04
Compound	CAS Number	LOR	Unit	EP2419185-087	EP2419185-088	EP2419185-089	EP2419185-090	EP2419185-091
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	137	141	130	123	122
Total Alkalinity as CaCO3	---	1	mg/L	137	141	130	123	122
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2440	2590	2490	2560	2610
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	20300	20100	21000	21500	21400
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	426	417	433	437	433
Magnesium	7439-95-4	1	mg/L	1360	1330	1390	1400	1390
Sodium	7440-23-5	1	mg/L	10200	9920	10300	10400	10400
Potassium	7440-09-7	1	mg/L	571	552	579	579	581
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	626	624	647	662	660
ø Total Cations	---	0.01	meq/L	591	576	599	604	603
ø Ionic Balance	---	0.01	%	2.85	3.99	3.85	4.58	4.53
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.01	0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_241217	0089_SW372_241217	0089_SW373_241217	0089_SW309_241218	0089_SW310_241218
				Sampling date / time	17-Dec-2024 12:57	17-Dec-2024 13:01	17-Dec-2024 13:02	19-Dec-2024 12:15	19-Dec-2024 12:04
Compound	CAS Number	LOR	Unit		EP2419185-087	EP2419185-088	EP2419185-089	EP2419185-090	EP2419185-091
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_241217	0089_SW372_241217	0089_SW373_241217	0089_SW309_241218	0089_SW310_241218
				Sampling date / time	17-Dec-2024 12:57	17-Dec-2024 13:01	17-Dec-2024 13:02	19-Dec-2024 12:15	19-Dec-2024 12:04
Compound	CAS Number	LOR	Unit		EP2419185-087	EP2419185-088	EP2419185-089	EP2419185-090	EP2419185-091
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.02**	**0.01**	**0.01**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.01**	**0.01**	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.02**	**0.01**	**0.01**	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**114**	**104**	**109**	**106**	**129**
13C8-PFOA	---	0.02	%		**104**	**113**	**111**	**103**	**103**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW311_241218	0089_SW406_241217	0089_SW408_241217	0089_SW410_241217	0089_SW412_241218
				Sampling date / time	19-Dec-2024 12:18	19-Dec-2024 11:30	19-Dec-2024 11:20	19-Dec-2024 11:26	19-Dec-2024 12:23
Compound	CAS Number	LOR	Unit		EP2419185-092	EP2419185-093	EP2419185-094	EP2419185-095	EP2419185-096
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	16	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		123	126	132	105	129
Total Alkalinity as CaCO3	---	1	mg/L		123	126	132	121	129
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2810	2460	2580	2560	2610
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		21600	21500	21200	21200	21100
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		440	435	440	440	439
Magnesium	7439-95-4	1	mg/L		1410	1400	1410	1420	1410
Sodium	7440-23-5	1	mg/L		10500	10400	10400	10500	10400
Potassium	7440-09-7	1	mg/L		584	580	581	586	585
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		670	660	654	654	652
ø Total Cations	---	0.01	meq/L		610	604	605	610	605
ø Ionic Balance	---	0.01	%		4.74	4.44	3.90	3.42	3.72
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW311_241218	0089_SW406_241217	0089_SW408_241217	0089_SW410_241217	0089_SW412_241218
				Sampling date / time	19-Dec-2024 12:18	19-Dec-2024 11:30	19-Dec-2024 11:20	19-Dec-2024 11:26	19-Dec-2024 12:23
Compound	CAS Number	LOR	Unit		EP2419185-092	EP2419185-093	EP2419185-094	EP2419185-095	EP2419185-096
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW311_241218	0089_SW406_241217	0089_SW408_241217	0089_SW410_241217	0089_SW412_241218
				Sampling date / time	19-Dec-2024 12:18	19-Dec-2024 11:30	19-Dec-2024 11:20	19-Dec-2024 11:26	19-Dec-2024 12:23
Compound	CAS Number	LOR	Unit		EP2419185-092	EP2419185-093	EP2419185-094	EP2419185-095	EP2419185-096
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**121**	**137**	**140**	**127**	**134**
13C8-PFOA	---	0.02	%		**90.3**	**89.1**	**94.8**	**90.8**	**110**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0089_SW414_241218	0089_SW416_241218	0089_SW317_241217	0089_SW318_241217	0089_SW319_241217
			Sampling date / time	19-Dec-2024 12:21	19-Dec-2024 12:22	19-Dec-2024 11:19	19-Dec-2024 11:12	19-Dec-2024 11:29
Compound	CAS Number	LOR	Unit	EP2419185-097	EP2419185-098	EP2419185-099	EP2419185-100	EP2419185-101
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	127	125	178	129	127
Total Alkalinity as CaCO3	---	1	mg/L	127	125	178	129	127
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2570	2450	2210	2560	2600
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	21200	21400	17500	21000	21100
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	452	438	378	439	433
Magnesium	7439-95-4	1	mg/L	1450	1410	1200	1410	1390
Sodium	7440-23-5	1	mg/L	10800	10500	9030	10400	10400
Potassium	7440-09-7	1	mg/L	604	586	492	579	577
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	654	657	543	648	652
ø Total Cations	---	0.01	meq/L	627	610	523	605	603
ø Ionic Balance	---	0.01	%	2.10	3.75	1.90	3.44	3.88
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW414_241218	0089_SW416_241218	0089_SW317_241217	0089_SW318_241217	0089_SW319_241217
				Sampling date / time	19-Dec-2024 12:21	19-Dec-2024 12:22	19-Dec-2024 11:19	19-Dec-2024 11:12	19-Dec-2024 11:29
Compound	CAS Number	LOR	Unit		EP2419185-097	EP2419185-098	EP2419185-099	EP2419185-100	EP2419185-101
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW414_241218	0089_SW416_241218	0089_SW317_241217	0089_SW318_241217	0089_SW319_241217
				Sampling date / time	19-Dec-2024 12:21	19-Dec-2024 12:22	19-Dec-2024 11:19	19-Dec-2024 11:12	19-Dec-2024 11:29
Compound	CAS Number	LOR	Unit		EP2419185-097	EP2419185-098	EP2419185-099	EP2419185-100	EP2419185-101
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**121**	**130**	**138**	**121**	**124**
13C8-PFOA	---	0.02	%		**95.9**	**85.9**	**89.3**	**87.2**	**84.3**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0089_QC111_241217	0089_QC120_241218	0089_QC108_241217	0089_QC116_241218	----
			Sampling date / time	17-Dec-2024 10:33	18-Dec-2024 10:07	19-Dec-2024 11:16	19-Dec-2024 12:07	---
Compound	CAS Number	LOR	Unit	EP2419185-130	EP2419185-139	EP2419185-149	EP2419185-156	------
				Result	Result	Result	Result	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.02**	<0.01	<0.01	<0.01	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	---
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC111_241217	0089_QC120_241218	0089_QC108_241217	0089_QC116_241218	----
				Sampling date / time	17-Dec-2024 10:33	18-Dec-2024 10:07	19-Dec-2024 11:16	19-Dec-2024 12:07	---
Compound	CAS Number	LOR	Unit		EP2419185-130	EP2419185-139	EP2419185-149	EP2419185-156	------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.02**	<0.01	<0.01	<0.01	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	<0.01	<0.01	<0.01	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.02**	<0.01	<0.01	<0.01	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**106**	**110**	**113**	**101**	---
13C8-PFOA	---	0.02	%		**99.4**	**105**	**104**	**104**	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW304_241217	0089_PW345_241217	0089_PW367_241217	0089_PW368_241217	0089_PW369_241217
			Sampling date / time	17-Dec-2024 12:54	17-Dec-2024 10:46	17-Dec-2024 11:25	17-Dec-2024 12:52	17-Dec-2024 09:36
Compound	CAS Number	LOR	Unit	EP2419185-102	EP2419185-103	EP2419185-104	EP2419185-105	EP2419185-106
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	328	277	1490	390	548
Total Alkalinity as CaCO3	---	1	mg/L	328	277	1490	390	548
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2190	3040	2900	2450	2650
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	16700	24300	21500	19800	21600
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	369	528	466	474	453
Magnesium	7439-95-4	1	mg/L	1080	1600	1420	1310	1420
Sodium	7440-23-5	1	mg/L	8360	11600	10500	9840	10500
Potassium	7440-09-7	1	mg/L	450	675	588	550	584
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	523	754	697	617	675
ø Total Cations	---	0.01	meq/L	482	680	612	574	611
ø Ionic Balance	---	0.01	%	4.06	5.19	6.48	3.68	5.00
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.04	0.03	0.03	0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_241217	0089_PW345_241217	0089_PW367_241217	0089_PW368_241217	0089_PW369_241217
				Sampling date / time	17-Dec-2024 12:54	17-Dec-2024 10:46	17-Dec-2024 11:25	17-Dec-2024 12:52	17-Dec-2024 09:36
Compound	CAS Number	LOR	Unit		EP2419185-102	EP2419185-103	EP2419185-104	EP2419185-105	EP2419185-106
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_241217	0089_PW345_241217	0089_PW367_241217	0089_PW368_241217	0089_PW369_241217
				Sampling date / time	17-Dec-2024 12:54	17-Dec-2024 10:46	17-Dec-2024 11:25	17-Dec-2024 12:52	17-Dec-2024 09:36
Compound	CAS Number	LOR	Unit		EP2419185-102	EP2419185-103	EP2419185-104	EP2419185-105	EP2419185-106
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.05**	**0.04**	**0.03**	**0.03**	**0.05**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**0.04**	**0.03**	**0.03**	**0.05**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.05**	**0.04**	**0.03**	**0.03**	**0.05**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**110**	**103**	**108**	**110**	**109**
13C8-PFOA	---	0.02	%		**106**	**99.1**	**104**	**104**	**103**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW346_241217	0089_PW306_241218	0089_PW405_241217	0089_PW407_241217	0089_PW409_241217
				Sampling date / time	17-Dec-2024 14:41	19-Dec-2024 12:05	19-Dec-2024 11:28	19-Dec-2024 11:18	19-Dec-2024 11:25
Compound	CAS Number	LOR	Unit		EP2419185-107	EP2419185-108	EP2419185-109	EP2419185-110	EP2419185-111
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		396	112	194	140	206
Total Alkalinity as CaCO3	---	1	mg/L		396	112	194	140	206
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		1520	2540	2200	2370	2460
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		11200	20600	18000	20700	20800
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		264	506	413	464	451
Magnesium	7439-95-4	1	mg/L		770	1620	1290	1430	1450
Sodium	7440-23-5	1	mg/L		5530	11800	9690	10600	10700
Potassium	7440-09-7	1	mg/L		323	673	526	579	597
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		355	636	557	636	642
ø Total Cations	---	0.01	meq/L		325	689	562	617	622
ø Ionic Balance	---	0.01	%		4.43	3.99	0.38	1.54	1.54
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		0.18	<0.01	0.06	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		0.49	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW346_241217	0089_PW306_241218	0089_PW405_241217	0089_PW407_241217	0089_PW409_241217
				Sampling date / time	17-Dec-2024 14:41	19-Dec-2024 12:05	19-Dec-2024 11:28	19-Dec-2024 11:18	19-Dec-2024 11:25
Compound	CAS Number	LOR	Unit		EP2419185-107	EP2419185-108	EP2419185-109	EP2419185-110	EP2419185-111
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.1**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.16**	<0.02	**0.36**	**0.03**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.17**	<0.02	**0.59**	**0.08**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.10**	**0.03**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.01**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW346_241217	0089_PW306_241218	0089_PW405_241217	0089_PW407_241217	0089_PW409_241217
				Sampling date / time	17-Dec-2024 14:41	19-Dec-2024 12:05	19-Dec-2024 11:28	19-Dec-2024 11:18	19-Dec-2024 11:25
Compound	CAS Number	LOR	Unit		EP2419185-107	EP2419185-108	EP2419185-109	EP2419185-110	EP2419185-111
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**1.00**	<0.01	**1.26**	**0.14**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.67**	<0.01	**0.06**	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**1.00**	<0.01	**1.24**	**0.14**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**109**	**134**	**121**	**136**	**101**
13C8-PFOA	---	0.02	%		**103**	**92.7**	**87.6**	**89.6**	**101**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW411_241218	0089_PW413_241218	0089_PW415_241218	0089_PW374_241217	0089_PW375_241217
			Sampling date / time	19-Dec-2024 12:17	19-Dec-2024 12:24	19-Dec-2024 12:25	19-Dec-2024 11:33	19-Dec-2024 11:13
Compound	CAS Number	LOR	Unit	EP2419185-112	EP2419185-113	EP2419185-114	EP2419185-115	EP2419185-116
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	119	132	108	116	130
Total Alkalinity as CaCO3	---	1	mg/L	119	132	108	116	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2510	2460	2460	2310	2450
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	20400	20800	20600	20300	20300
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	444	457	448	442	433
Magnesium	7439-95-4	1	mg/L	1410	1440	1460	1420	1390
Sodium	7440-23-5	1	mg/L	10400	10600	10700	10500	10200
Potassium	7440-09-7	1	mg/L	577	589	604	585	570
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	630	640	634	623	626
ø Total Cations	---	0.01	meq/L	605	617	623	611	594
ø Ionic Balance	---	0.01	%	2.00	1.84	0.88	1.01	2.62
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_241218	0089_PW413_241218	0089_PW415_241218	0089_PW374_241217	0089_PW375_241217
				Sampling date / time	19-Dec-2024 12:17	19-Dec-2024 12:24	19-Dec-2024 12:25	19-Dec-2024 11:33	19-Dec-2024 11:13
Compound	CAS Number	LOR	Unit		EP2419185-112	EP2419185-113	EP2419185-114	EP2419185-115	EP2419185-116
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_241218	0089_PW413_241218	0089_PW415_241218	0089_PW374_241217	0089_PW375_241217
				Sampling date / time	19-Dec-2024 12:17	19-Dec-2024 12:24	19-Dec-2024 12:25	19-Dec-2024 11:33	19-Dec-2024 11:13
Compound	CAS Number	LOR	Unit		EP2419185-112	EP2419185-113	EP2419185-114	EP2419185-115	EP2419185-116
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		122	106	118	118	124
13C8-PFOA	---	0.02	%		90.8	105	97.3	88.9	88.9

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_241217	0089_QC110_241217	0089_QC117_241218	---	---
				Sampling date / time	19-Dec-2024 11:31	19-Dec-2024 11:17	19-Dec-2024 12:20	---	---
Compound	CAS Number	LOR	Unit		EP2419185-117	EP2419185-150	EP2419185-157	-------	-------
					Result	Result	Result	---	---
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	---	---	---	---
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	---	---	---	---
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		116	---	---	---	---
Total Alkalinity as CaCO3	---	1	mg/L		116	---	---	---	---
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2370	---	---	---	---
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		20500	---	---	---	---
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		444	---	---	---	---
Magnesium	7439-95-4	1	mg/L		1440	---	---	---	---
Sodium	7440-23-5	1	mg/L		10600	---	---	---	---
Potassium	7440-09-7	1	mg/L		596	---	---	---	---
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		630	---	---	---	---
ø Total Cations	---	0.01	meq/L		617	---	---	---	---
ø Ionic Balance	---	0.01	%		1.04	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	---	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_241217	0089_QC110_241217	0089_QC117_241218	---	---
				Sampling date / time	19-Dec-2024 11:31	19-Dec-2024 11:17	19-Dec-2024 12:20	---	---
Compound	CAS Number	LOR	Unit		EP2419185-117	EP2419185-150	EP2419185-157	---	---
					Result	Result	Result	---	---
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	---	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_241217	0089_QC110_241217	0089_QC117_241218	---	---
				Sampling date / time	19-Dec-2024 11:31	19-Dec-2024 11:17	19-Dec-2024 12:20	---	---
Compound	CAS Number	LOR	Unit		EP2419185-117	EP2419185-150	EP2419185-157	-------	-------
					Result	Result	Result	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**132**	**105**	**104**	---	---
13C8-PFOA	---	0.02	%		**94.9**	**105**	**97.8**	---	---

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	76	136
13C8-PFOA	—	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2419185**	Page	: 1 of 35
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024
Site	: Stirling TA KD	Issue Date	: 09-Jan-2025
Sampler	: [redacted]	No. of samples received	: 161
Order number	: 12641234	No. of samples analysed	: 161

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP231C: Perfluoroalkyl Sulfonamides	QC-6291861-002	---	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	31506-32-8	146 %	59.6-143%	**Recovery greater than upper control limit**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	QC-6291858-002	---	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	141 %	54.8-124%	**Recovery greater than upper control limit**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	QC-6291861-002	---	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	162 %	54.8-124%	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
EP231C: Perfluoroalkyl Sulfonamides	EP2419185--069	0089_SD307_241218	**Perfluorooctane sulfonamide (FOSA)**	754-91-6	132 %	48.0-128%	**Recovery greater than upper data quality objective**
EP231C: Perfluoroalkyl Sulfonamides	EP2419185--069	0089_SD307_241218	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	31506-32-8	149 %	60.0-130%	**Recovery greater than upper data quality objective**
EP231C: Perfluoroalkyl Sulfonamides	EP2419185--057	0089_SD340_241218	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**	1691-99-2	138 %	60.0-130%	**Recovery greater than upper data quality objective**
EP231C: Perfluoroalkyl Sulfonamides	EP2419185--069	0089_SD307_241218	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**	1691-99-2	143 %	60.0-130%	**Recovery greater than upper data quality objective**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2419185--057	0089_SD340_241218	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	141 %	60.0-130%	**Recovery greater than upper data quality objective**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2419185--069	0089_SD307_241218	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	181 %	60.0-130%	**Recovery greater than upper data quality objective**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	QC-6291757-002	---	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	138 %	64.2-133%	**Recovery greater than upper control limit**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	QC-6291761-002	---	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	138 %	64.2-133%	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries - Continued							
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	EP2419185--021	0089_MW195D_241212	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	EP2419185--087	0089_SW371_241217	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	EP2419185--107	0089_PW346_241217	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
ED045G: Chloride by Discrete Analyser	EP2419185--021	0089_MW195D_241212	**Chloride**	16887-00-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
ED045G: Chloride by Discrete Analyser	EP2419185--087	0089_SW371_241217	**Chloride**	16887-00-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
ED045G: Chloride by Discrete Analyser	EP2419185--107	0089_PW346_241217	**Chloride**	16887-00-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EP2419185--003	0089_MW120_241216	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EP2419185--003	0089_MW120_241216	**Perfluoroheptane sulfonic acid (PFHpS)**	375-92-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EP2419185--003	0089_MW120_241216	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231C: Perfluoroalkyl Sulfonamides	EP2419185--003	0089_MW120_241216	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	31506-32-8	134 %	70.0-130%	**Recovery greater than upper data quality objective**

Outliers : Analysis Holding Time Compliance

Matrix: **WATER**

Method	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)	*Date extracted*	*Due for extraction*	***Days overdue***	*Date analysed*	*Due for analysis*	***Days overdue***
ED037P: Alkalinity by PC Titrator						

Matrix: **WATER**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
ED037P: Alkalinity by PC Titrator - Analysis Holding Time Compliance						
Clear Plastic Bottle - Natural						
0089_MW158_241212, 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW173_241212, 0089_MW193_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212	---	---	---	30-Dec-2024	26-Dec-2024	**4**
Clear Plastic Bottle - Natural						
0089_MW203_241213, 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW236_241213, 0089_MW238_241213, 0089_MW239_241213, 0089_MW240_241213, 0089_MW242_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW255_241213, 0089_MW256_241213, 0089_MW257_241213, 0089_MW258_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	---	---	---	30-Dec-2024	27-Dec-2024	**3**
ED093F: Dissolved Major Cations						
Clear Plastic Bottle - Natural						
0089_MW158_241212, 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW173_241212, 0089_MW193_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212	---	---	---	07-Jan-2025	19-Dec-2024	**19**
Clear Plastic Bottle - Natural						
0089_MW203_241213, 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW236_241213, 0089_MW238_241213, 0089_MW239_241213, 0089_MW240_241213, 0089_MW242_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW255_241213, 0089_MW256_241213, 0089_MW257_241213, 0089_MW258_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	---	---	---	07-Jan-2025	20-Dec-2024	**18**

Matrix: **WATER**

Method / Container / Client Sample ID(s)		Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
ED093F: Dissolved Major Cations - Analysis Holding Time Compliance							
Clear Plastic Bottle - Natural							
0089_MW109_241216,	0089_MW112_241216,	---	---	---	07-Jan-2025	23-Dec-2024	**15**
0089_MW120_241216,	0089_MW121_241216,						
0089_MW123_241216,	0089_MW128_241216,						
0089_MW289_241216,	0089_MW214_241216,						
0089_MW215_241216,	0089_MW216_241216,						
0089_MW217_241216,	0089_MW220_241216,						
0089_MW224_241216,	0089_MW225_241216,						
0089_MW226_241216,	0089_MW282_241216,						
0089_MW500_241216							
Clear Plastic Bottle - Natural							
0089_MW288_241217,	0089_SW305_241217,	---	---	---	07-Jan-2025	24-Dec-2024	**14**
0089_SW370_241217,	0089_SW371_241217,						
0089_SW372_241217,	0089_SW373_241217,						
0089_PW304_241217,	0089_PW345_241217,						
0089_PW367_241217,	0089_PW368_241217,						
0089_PW369_241217,	0089_PW346_241217						
Clear Plastic Bottle - Natural							
0089_MW124_241218,	0089_MW125_241218,	---	---	---	07-Jan-2025	25-Dec-2024	**13**
0089_MW126_241218,	0089_MW127_241218,						
0089_MW200_241218,	0089_MW468_241218,						
0089_MW227_241218,	0089_MW228_241218,						
0089_SW130_241218,	0089_SW132_241218,						
0089_SW134_241218,	0089_PW363_241218,						
0089_PW341_241218,	0089_PW362_241218,						
0089_PW340_241218,	0089_PW364_241218,						
0089_PW335_241218							
Clear Plastic Bottle - Natural							
0089_SW309_241218,	0089_SW310_241218,	---	---	---	07-Jan-2025	26-Dec-2024	**12**
0089_SW311_241218,	0089_SW406_241217,						
0089_SW408_241217,	0089_SW410_241217,						
0089_SW412_241218,	0089_SW414_241218,						
0089_SW416_241218,	0089_SW317_241217,						
0089_SW318_241217,	0089_SW319_241217,						
0089_PW306_241218,	0089_PW405_241217,						
0089_PW407_241217,	0089_PW409_241217,						
0089_PW411_241218,	0089_PW413_241218,						
0089_PW415_241218,	0089_PW374_241217,						
0089_PW375_241217,	0089_PW378_241217						

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	132	3.03	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	132	1.52	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD304_241217, 0089_SD345_241217, 0089_SD367_241217, 0089_SD368_241217, 0089_SD369_241217, 0089_SD346_241217, 0089_QC112_241217, 0089_QC115_241217	**17-Dec-2024**	**----**	----	----	**31-Dec-2024**	31-Dec-2024	✓
HDPE Soil Jar (EA055)							
0089_SD335_241218, 0089_SD340_241218, 0089_SD341_241218, 0089_SD362_241218, 0089_SD363_241218, 0089_SD364_241218	**18-Dec-2024**	**----**	----	----	**31-Dec-2024**	01-Jan-2025	✓
HDPE Soil Jar (EA055)							
0089_SD306_241218, 0089_SD307_241218, 0089_SD308_241218, 0089_SD314_241218, 0089_SD315_241218, 0089_SD316_241218, 0089_SD405_241217, 0089_SD407_241217, 0089_SD409_241217, 0089_SD411_241218, 0089_SD413_241218, 0089_SD415_241218, 0089_SD374_241217, 0089_SD375_241217, 0089_QC109_241217, 0089_SD378_241217, 0089_QC118_241218	**19-Dec-2024**	**----**	----	----	**31-Dec-2024**	02-Jan-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD304_241217, 0089_SD345_241217, 0089_SD367_241217, 0089_SD368_241217, 0089_SD369_241217, 0089_SD346_241217, 0089_QC112_241217, 0089_QC115_241217	**17-Dec-2024**	**03-Jan-2025**	15-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_241218, 0089_SD340_241218, 0089_SD341_241218, 0089_SD362_241218, 0089_SD363_241218, 0089_SD364_241218	**18-Dec-2024**	**03-Jan-2025**	16-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_241218, 0089_SD307_241218, 0089_SD308_241218, 0089_SD314_241218, 0089_SD315_241218, 0089_SD316_241218, 0089_SD405_241217, 0089_SD407_241217, 0089_SD409_241217, 0089_SD411_241218, 0089_SD413_241218, 0089_SD415_241218, 0089_SD374_241217, 0089_SD375_241217, 0089_QC109_241217, 0089_SD378_241217, 0089_QC118_241218	**19-Dec-2024**	**03-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0089_SD304_241217, 0089_SD345_241217, 0089_SD367_241217, 0089_SD368_241217, 0089_SD369_241217, 0089_SD346_241217, 0089_QC112_241217, 0089_QC115_241217	**17-Dec-2024**	**03-Jan-2025**	15-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_241218, 0089_SD340_241218, 0089_SD341_241218, 0089_SD362_241218, 0089_SD363_241218, 0089_SD364_241218	**18-Dec-2024**	**03-Jan-2025**	16-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_241218, 0089_SD307_241218, 0089_SD308_241218, 0089_SD314_241218, 0089_SD315_241218, 0089_SD316_241218, 0089_SD405_241217, 0089_SD407_241217, 0089_SD409_241217, 0089_SD411_241218, 0089_SD413_241218, 0089_SD415_241218, 0089_SD374_241217, 0089_SD375_241217, 0089_QC109_241217, 0089_SD378_241217, 0089_QC118_241218	**19-Dec-2024**	**03-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0089_SD304_241217, 0089_SD345_241217, 0089_SD367_241217, 0089_SD368_241217, 0089_SD369_241217, 0089_SD346_241217, 0089_QC112_241217, 0089_QC115_241217	**17-Dec-2024**	**03-Jan-2025**	15-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_241218, 0089_SD340_241218, 0089_SD341_241218, 0089_SD362_241218, 0089_SD363_241218, 0089_SD364_241218	**18-Dec-2024**	**03-Jan-2025**	16-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_241218, 0089_SD307_241218, 0089_SD308_241218, 0089_SD314_241218, 0089_SD315_241218, 0089_SD316_241218, 0089_SD405_241217, 0089_SD407_241217, 0089_SD409_241217, 0089_SD411_241218, 0089_SD413_241218, 0089_SD415_241218, 0089_SD374_241217, 0089_SD375_241217, 0089_QC109_241217, 0089_SD378_241217, 0089_QC118_241218	**19-Dec-2024**	**03-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD304_241217, 0089_SD345_241217, 0089_SD367_241217, 0089_SD368_241217, 0089_SD369_241217, 0089_SD346_241217, 0089_QC112_241217, 0089_QC115_241217	**17-Dec-2024**	**03-Jan-2025**	15-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_241218, 0089_SD340_241218, 0089_SD341_241218, 0089_SD362_241218, 0089_SD363_241218, 0089_SD364_241218	**18-Dec-2024**	**03-Jan-2025**	16-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_241218, 0089_SD307_241218, 0089_SD308_241218, 0089_SD314_241218, 0089_SD315_241218, 0089_SD316_241218, 0089_SD405_241217, 0089_SD407_241217, 0089_SD409_241217, 0089_SD411_241218, 0089_SD413_241218, 0089_SD415_241218, 0089_SD374_241217, 0089_SD375_241217, 0089_QC109_241217, 0089_SD378_241217, 0089_QC118_241218	**19-Dec-2024**	**03-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0089_SD304_241217, 0089_SD345_241217, 0089_SD367_241217, 0089_SD368_241217, 0089_SD369_241217, 0089_SD346_241217, 0089_QC112_241217, 0089_QC115_241217	**17-Dec-2024**	**03-Jan-2025**	15-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_241218, 0089_SD340_241218, 0089_SD341_241218, 0089_SD362_241218, 0089_SD363_241218, 0089_SD364_241218	**18-Dec-2024**	**03-Jan-2025**	16-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_241218, 0089_SD307_241218, 0089_SD308_241218, 0089_SD314_241218, 0089_SD315_241218, 0089_SD316_241218, 0089_SD405_241217, 0089_SD407_241217, 0089_SD409_241217, 0089_SD411_241218, 0089_SD413_241218, 0089_SD415_241218, 0089_SD374_241217, 0089_SD375_241217, 0089_QC109_241217, 0089_SD378_241217, 0089_QC118_241218	**19-Dec-2024**	**03-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	12-Feb-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0089_MW158_241212, 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW173_241212, 0089_MW193_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212	**12-Dec-2024**	----	----	----	**30-Dec-2024**	26-Dec-2024	×
Clear Plastic Bottle - Natural (ED037-P)							
0089_MW203_241213, 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW236_241213, 0089_MW238_241213, 0089_MW239_241213, 0089_MW240_241213, 0089_MW242_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW255_241213, 0089_MW256_241213, 0089_MW257_241213, 0089_MW258_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	----	----	----	**30-Dec-2024**	27-Dec-2024	×
Clear Plastic Bottle - Natural (ED037-P)							
0089_MW109_241216, 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_MW282_241216, 0089_MW500_241216	**16-Dec-2024**	----	----	----	**30-Dec-2024**	30-Dec-2024	✓
Clear Plastic Bottle - Natural (ED037-P)							
0089_MW288_241217, 0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217	**17-Dec-2024**	----	----	----	**30-Dec-2024**	31-Dec-2024	✓
Clear Plastic Bottle - Natural (ED037-P)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator - Continued								
0089_MW124_241218,	0089_MW125_241218,	**18-Dec-2024**	---	---	---	**30-Dec-2024**	01-Jan-2025	✓
0089_MW126_241218,	0089_MW127_241218,							
0089_MW200_241218,	0089_MW468_241218,							
0089_MW227_241218,	0089_MW228_241218,							
0089_SW130_241218,	0089_SW132_241218,							
0089_SW134_241218,	0089_PW363_241218,							
0089_PW341_241218,	0089_PW362_241218,							
0089_PW340_241218,	0089_PW364_241218,							
0089_PW335_241218								
Clear Plastic Bottle - Natural (ED037-P)								
0089_SW309_241218,	0089_SW310_241218,	**19-Dec-2024**	---	---	---	**30-Dec-2024**	02-Jan-2025	✓
0089_SW311_241218,	0089_SW406_241217,							
0089_SW408_241217,	0089_SW410_241217,							
0089_SW412_241218,	0089_SW414_241218,							
0089_SW416_241218,	0089_SW317_241217,							
0089_SW318_241217,	0089_SW319_241217,							
0089_PW306_241218,	0089_PW405_241217,							
0089_PW407_241217,	0089_PW409_241217,							
0089_PW411_241218,	0089_PW413_241218,							
0089_PW415_241218,	0089_PW374_241217,							
0089_PW375_241217,	0089_PW378_241217							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0089_MW158_241212, 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW173_241212, 0089_MW193_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212	**12-Dec-2024**	----	----	----	**07-Jan-2025**	09-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_MW203_241213, 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW236_241213, 0089_MW238_241213	**13-Dec-2024**	----	----	----	**07-Jan-2025**	10-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_MW239_241213, 0089_MW240_241213, 0089_MW242_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW255_241213, 0089_MW256_241213, 0089_MW257_241213, 0089_MW258_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	----	----	----	**08-Jan-2025**	10-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_MW109_241216, 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_MW282_241216, 0089_MW500_241216	**16-Dec-2024**	----	----	----	**07-Jan-2025**	13-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_PW346_241217	**17-Dec-2024**	----	----	----	**06-Jan-2025**	14-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_MW288_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217	**17-Dec-2024**	----	----	----	**07-Jan-2025**	14-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_SW305_241217, 0089_SW370_241217	**17-Dec-2024**	----	----	----	**08-Jan-2025**	14-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA - Continued								
0089_MW124_241218,	0089_MW125_241218,	**18-Dec-2024**	----	----	----	**07-Jan-2025**	15-Jan-2025	✓
0089_MW126_241218,	0089_MW127_241218,							
0089_MW200_241218,	0089_MW468_241218,							
0089_MW227_241218,	0089_MW228_241218,							
0089_PW363_241218,	0089_PW341_241218,							
0089_PW362_241218,	0089_PW340_241218,							
0089_PW364_241218,	0089_PW335_241218							
Clear Plastic Bottle - Natural (ED041G)								
0089_SW130_241218,	0089_SW132_241218,	**18-Dec-2024**	----	----	----	**08-Jan-2025**	15-Jan-2025	✓
0089_SW134_241218								
Clear Plastic Bottle - Natural (ED041G)								
0089_PW306_241218,	0089_PW405_241217,	**19-Dec-2024**	----	----	----	**06-Jan-2025**	16-Jan-2025	✓
0089_PW407_241217,	0089_PW409_241217,							
0089_PW411_241218,	0089_PW413_241218,							
0089_PW415_241218,	0089_PW374_241217,							
0089_PW375_241217,	0089_PW378_241217							
Clear Plastic Bottle - Natural (ED041G)								
0089_SW309_241218,	0089_SW310_241218,	**19-Dec-2024**	----	----	----	**07-Jan-2025**	16-Jan-2025	✓
0089_SW311_241218,	0089_SW406_241217,							
0089_SW408_241217,	0089_SW410_241217,							
0089_SW412_241218,	0089_SW414_241218,							
0089_SW416_241218,	0089_SW317_241217,							
0089_SW318_241217,	0089_SW319_241217							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0089_MW158_241212, 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW173_241212, 0089_MW193_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212	**12-Dec-2024**	----	----	----	**07-Jan-2025**	09-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_MW203_241213, 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW236_241213, 0089_MW238_241213, 0089_MW258_241213	**13-Dec-2024**	----	----	----	**07-Jan-2025**	10-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_MW239_241213, 0089_MW240_241213, 0089_MW242_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW255_241213, 0089_MW256_241213, 0089_MW257_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	----	----	----	**08-Jan-2025**	10-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_MW109_241216, 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_MW282_241216, 0089_MW500_241216	**16-Dec-2024**	----	----	----	**07-Jan-2025**	13-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_PW346_241217	**17-Dec-2024**	----	----	----	**06-Jan-2025**	14-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_MW288_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217	**17-Dec-2024**	----	----	----	**07-Jan-2025**	14-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_SW305_241217, 0089_SW370_241217	**17-Dec-2024**	----	----	----	**08-Jan-2025**	14-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED045G: Chloride by Discrete Analyser - Continued								
0089_MW124_241218,	0089_MW125_241218,	**18-Dec-2024**	----	----	----	**07-Jan-2025**	15-Jan-2025	✓
0089_MW126_241218,	0089_MW127_241218,							
0089_MW200_241218,	0089_MW468_241218,							
0089_MW227_241218,	0089_MW228_241218,							
0089_PW363_241218,	0089_PW341_241218,							
0089_PW362_241218,	0089_PW340_241218,							
0089_PW364_241218,	0089_PW335_241218							
Clear Plastic Bottle - Natural (ED045G)								
0089_SW130_241218,	0089_SW132_241218,	**18-Dec-2024**	----	----	----	**08-Jan-2025**	15-Jan-2025	✓
0089_SW134_241218								
Clear Plastic Bottle - Natural (ED045G)								
0089_PW306_241218,	0089_PW405_241217,	**19-Dec-2024**	----	----	----	**06-Jan-2025**	16-Jan-2025	✓
0089_PW407_241217,	0089_PW409_241217,							
0089_PW411_241218,	0089_PW413_241218,							
0089_PW415_241218,	0089_PW374_241217,							
0089_PW375_241217,	0089_PW378_241217							
Clear Plastic Bottle - Natural (ED045G)								
0089_SW309_241218,	0089_SW310_241218,	**19-Dec-2024**	----	----	----	**07-Jan-2025**	16-Jan-2025	✓
0089_SW311_241218,	0089_SW406_241217,							
0089_SW408_241217,	0089_SW410_241217,							
0089_SW412_241218,	0089_SW414_241218,							
0089_SW416_241218,	0089_SW317_241217,							
0089_SW318_241217,	0089_SW319_241217							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Natural (ED093F)							
0089_MW158_241212, 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW173_241212, 0089_MW193_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212	**12-Dec-2024**	----	----	----	**07-Jan-2025**	19-Dec-2024	×
Clear Plastic Bottle - Natural (ED093F)							
0089_MW203_241213, 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW236_241213, 0089_MW238_241213, 0089_MW239_241213, 0089_MW240_241213, 0089_MW242_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW255_241213, 0089_MW256_241213, 0089_MW257_241213, 0089_MW258_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	----	----	----	**07-Jan-2025**	20-Dec-2024	×
Clear Plastic Bottle - Natural (ED093F)							
0089_MW109_241216, 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_MW282_241216, 0089_MW500_241216	**16-Dec-2024**	----	----	----	**07-Jan-2025**	23-Dec-2024	×
Clear Plastic Bottle - Natural (ED093F)							
0089_MW288_241217, 0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217	**17-Dec-2024**	----	----	----	**07-Jan-2025**	24-Dec-2024	×
Clear Plastic Bottle - Natural (ED093F)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED093F: Dissolved Major Cations - Continued								
0089_MW124_241218,	0089_MW125_241218,	**18-Dec-2024**	---	---	---	**07-Jan-2025**	25-Dec-2024	×
0089_MW126_241218,	0089_MW127_241218,							
0089_MW200_241218,	0089_MW468_241218,							
0089_MW227_241218,	0089_MW228_241218,							
0089_SW130_241218,	0089_SW132_241218,							
0089_SW134_241218,	0089_PW363_241218,							
0089_PW341_241218,	0089_PW362_241218,							
0089_PW340_241218,	0089_PW364_241218,							
0089_PW335_241218								
Clear Plastic Bottle - Natural (ED093F)								
0089_SW309_241218,	0089_SW310_241218,	**19-Dec-2024**	---	---	---	**07-Jan-2025**	26-Dec-2024	×
0089_SW311_241218,	0089_SW406_241217,							
0089_SW408_241217,	0089_SW410_241217,							
0089_SW412_241218,	0089_SW414_241218,							
0089_SW416_241218,	0089_SW317_241217,							
0089_SW318_241217,	0089_SW319_241217,							
0089_PW306_241218,	0089_PW405_241217,							
0089_PW407_241217,	0089_PW409_241217,							
0089_PW411_241218,	0089_PW413_241218,							
0089_PW415_241218,	0089_PW374_241217,							
0089_PW375_241217,	0089_PW378_241217							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_MW158_241212, 0089_MW173_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212, 0089_QC101_241212, 0089_QC401_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW193_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**03-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW203_241213, 0089_QC102_241213, 0089_QC103_241213, 0089_QC104_241213, 0089_QC402_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW236_241213, 0089_MW239_241213, 0089_MW242_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW256_241213, 0089_MW258_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**03-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW238_241213, 0089_MW240_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW255_241213, 0089_MW257_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**06-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_QC105_241216, 0089_QC106_241216, 0089_MW500_241216, 0089_QC107_241216, 0089_QC310_241216, 0089_QC403_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**02-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**03-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW282_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**06-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0089_MW288_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217, 0089_QC111_241217, 0089_QC113_241217, 0089_QC114_241217, 0089_QC313_241217, 0089_QC312_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**02-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**06-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW124_241218, 0089_MW125_241218, 0089_MW126_241218, 0089_MW127_241218, 0089_MW200_241218, 0089_MW468_241218, 0089_MW227_241218, 0089_PW363_241218, 0089_QC120_241218, 0089_PW341_241218, 0089_QC121_241218, 0089_PW362_241218, 0089_PW340_241218, 0089_PW364_241218, 0089_PW335_241218, 0089_QC314_241218, 0089_QC315_241218, 0089_QC405_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**02-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW228_241218, 0089_SW130_241218, 0089_SW132_241218, 0089_SW134_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**06-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW409_241217, 0089_PW413_241218, 0089_QC108_241217, 0089_QC110_241217, 0089_QC404_241217, 0089_QC311_241217, 0089_QC501_241219 - TBW1899	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_241218, 0089_SW310_241218, 0089_SW311_241218, 0089_SW406_241217, 0089_SW408_241217, 0089_SW410_241217, 0089_SW412_241218, 0089_SW414_241218, 0089_SW416_241218, 0089_SW317_241217, 0089_SW318_241217, 0089_SW319_241217, 0089_PW306_241218, 0089_PW405_241217, 0089_PW407_241217, 0089_PW411_241218, 0089_PW415_241218, 0089_PW374_241217, 0089_PW375_241217, 0089_PW378_241217	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0089_QC116_241218, 0089_QC117_241218, 0089_QC502_241219 - TBW1894, 0089_QC503_241219 - TBW1901, 0089_QC504_241219 - TBW1898, 0089_QC505_241219 - TBW1900	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**06-Jan-2025**	17-Jun-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0089_MW158_241212, 0089_MW173_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212, 0089_QC101_241212, 0089_QC401_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW193_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**03-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW203_241213, 0089_QC102_241213, 0089_QC103_241213, 0089_QC104_241213, 0089_QC402_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW236_241213, 0089_MW239_241213, 0089_MW242_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW256_241213, 0089_MW258_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**03-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW238_241213, 0089_MW240_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW255_241213, 0089_MW257_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**06-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_QC105_241216, 0089_QC106_241216, 0089_MW500_241216, 0089_QC107_241216, 0089_QC310_241216, 0089_QC403_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**02-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**03-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW282_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**06-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0089_MW288_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217, 0089_QC111_241217, 0089_QC113_241217, 0089_QC114_241217, 0089_QC313_241217, 0089_QC312_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**02-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**06-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW124_241218, 0089_MW125_241218, 0089_MW126_241218, 0089_MW127_241218, 0089_MW200_241218, 0089_MW468_241218, 0089_MW227_241218, 0089_PW363_241218, 0089_QC120_241218, 0089_PW341_241218, 0089_QC121_241218, 0089_PW362_241218, 0089_PW340_241218, 0089_PW364_241218, 0089_PW335_241218, 0089_QC314_241218, 0089_QC315_241218, 0089_QC405_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**02-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW228_241218, 0089_SW130_241218, 0089_SW132_241218, 0089_SW134_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**06-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW409_241217, 0089_PW413_241218, 0089_QC108_241217, 0089_QC110_241217, 0089_QC404_241217, 0089_QC311_241217, 0089_QC501_241219 - TBW1899	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_241218, 0089_SW310_241218, 0089_SW311_241218, 0089_SW406_241217, 0089_SW408_241217, 0089_SW410_241217, 0089_SW412_241218, 0089_SW414_241218, 0089_SW416_241218, 0089_SW317_241217, 0089_SW318_241217, 0089_SW319_241217, 0089_PW306_241218, 0089_PW405_241217, 0089_PW407_241217, 0089_PW411_241218, 0089_PW415_241218, 0089_PW374_241217, 0089_PW375_241217, 0089_PW378_241217	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0089_QC116_241218, 0089_QC117_241218, 0089_QC502_241219 - TBW1894, 0089_QC503_241219 - TBW1901, 0089_QC504_241219 - TBW1898, 0089_QC505_241219 - TBW1900	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**06-Jan-2025**	17-Jun-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0089_MW158_241212, 0089_MW173_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212, 0089_QC101_241212, 0089_QC401_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW193_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**03-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW203_241213, 0089_QC102_241213, 0089_QC103_241213, 0089_QC104_241213, 0089_QC402_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW236_241213, 0089_MW239_241213, 0089_MW242_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW256_241213, 0089_MW258_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**03-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW238_241213, 0089_MW240_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW255_241213, 0089_MW257_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**06-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_QC105_241216, 0089_QC106_241216, 0089_MW500_241216, 0089_QC107_241216, 0089_QC310_241216, 0089_QC403_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**02-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**03-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW282_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**06-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0089_MW288_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217, 0089_QC111_241217, 0089_QC113_241217, 0089_QC114_241217, 0089_QC313_241217, 0089_QC312_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**02-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**06-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW124_241218, 0089_MW125_241218, 0089_MW126_241218, 0089_MW127_241218, 0089_MW200_241218, 0089_MW468_241218, 0089_MW227_241218, 0089_PW363_241218, 0089_QC120_241218, 0089_PW341_241218, 0089_QC121_241218, 0089_PW362_241218, 0089_PW340_241218, 0089_PW364_241218, 0089_PW335_241218, 0089_QC314_241218, 0089_QC315_241218, 0089_QC405_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**02-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW228_241218, 0089_SW130_241218, 0089_SW132_241218, 0089_SW134_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**06-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW409_241217, 0089_PW413_241218, 0089_QC108_241217, 0089_QC110_241217, 0089_QC404_241217, 0089_QC311_241217, 0089_QC501_241219 - TBW1899	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_241218, 0089_SW310_241218, 0089_SW311_241218, 0089_SW406_241217, 0089_SW408_241217, 0089_SW410_241217, 0089_SW412_241218, 0089_SW414_241218, 0089_SW416_241218, 0089_SW317_241217, 0089_SW318_241217, 0089_SW319_241217, 0089_PW306_241218, 0089_PW405_241217, 0089_PW407_241217, 0089_PW411_241218, 0089_PW415_241218, 0089_PW374_241217, 0089_PW375_241217, 0089_PW378_241217	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0089_QC116_241218, 0089_QC117_241218, 0089_QC502_241219 - TBW1894, 0089_QC503_241219 - TBW1901, 0089_QC504_241219 - TBW1898, 0089_QC505_241219 - TBW1900	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**06-Jan-2025**	17-Jun-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_MW158_241212, 0089_MW173_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212, 0089_QC101_241212, 0089_QC401_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW193_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**03-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW203_241213, 0089_QC102_241213, 0089_QC103_241213, 0089_QC104_241213, 0089_QC402_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW236_241213, 0089_MW239_241213, 0089_MW242_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW256_241213, 0089_MW258_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**03-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW238_241213, 0089_MW240_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW255_241213, 0089_MW257_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**06-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_QC105_241216, 0089_QC106_241216, 0089_MW500_241216, 0089_QC107_241216, 0089_QC310_241216, 0089_QC403_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**02-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**03-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW282_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**06-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0089_MW288_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217, 0089_QC111_241217, 0089_QC113_241217, 0089_QC114_241217, 0089_QC313_241217, 0089_QC312_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**02-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**06-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW124_241218, 0089_MW125_241218, 0089_MW126_241218, 0089_MW127_241218, 0089_MW200_241218, 0089_MW468_241218, 0089_MW227_241218, 0089_PW363_241218, 0089_QC120_241218, 0089_PW341_241218, 0089_QC121_241218, 0089_PW362_241218, 0089_PW340_241218, 0089_PW364_241218, 0089_PW335_241218, 0089_QC314_241218, 0089_QC315_241218, 0089_QC405_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**02-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW228_241218, 0089_SW130_241218, 0089_SW132_241218, 0089_SW134_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**06-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW409_241217, 0089_PW413_241218, 0089_QC108_241217, 0089_QC110_241217, 0089_QC404_241217, 0089_QC311_241217, 0089_QC501_241219 - TBW1899	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_241218, 0089_SW310_241218, 0089_SW311_241218, 0089_SW406_241217, 0089_SW408_241217, 0089_SW410_241217, 0089_SW412_241218, 0089_SW414_241218, 0089_SW416_241218, 0089_SW317_241217, 0089_SW318_241217, 0089_SW319_241217, 0089_PW306_241218, 0089_PW405_241217, 0089_PW407_241217, 0089_PW411_241218, 0089_PW415_241218, 0089_PW374_241217, 0089_PW375_241217, 0089_PW378_241217	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0089_QC116_241218, 0089_QC117_241218, 0089_QC502_241219 - TBW1894, 0089_QC503_241219 - TBW1901, 0089_QC504_241219 - TBW1898, 0089_QC505_241219 - TBW1900	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**06-Jan-2025**	17-Jun-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0089_MW158_241212, 0089_MW173_241212, 0089_MW196_241212, 0089_MW199_241212, 0089_MW195D_241212, 0089_QC101_241212, 0089_QC401_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**02-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW161_241212, 0089_MW166_241212, 0089_MW171_241212, 0089_MW193_241212	**12-Dec-2024**	**02-Jan-2025**	10-Jun-2025	✓	**03-Jan-2025**	10-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW203_241213, 0089_QC102_241213, 0089_QC103_241213, 0089_QC104_241213, 0089_QC402_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**02-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW236_241213, 0089_MW239_241213, 0089_MW242_241213, 0089_MW249_241213, 0089_MW496_241213, 0089_MW516_241213, 0089_MW256_241213, 0089_MW258_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**03-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW268_241213, 0089_MW269_241213, 0089_MW233_241213, 0089_MW238_241213, 0089_MW240_241213, 0089_MW243_241213, 0089_MW245_241213, 0089_MW255_241213, 0089_MW257_241213, 0089_MW259_241213, 0089_MW553_241213, 0089_MW010_241213	**13-Dec-2024**	**02-Jan-2025**	11-Jun-2025	✓	**06-Jan-2025**	11-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_241216, 0089_MW123_241216, 0089_MW128_241216, 0089_MW289_241216, 0089_MW214_241216, 0089_MW224_241216, 0089_MW225_241216, 0089_MW226_241216, 0089_QC105_241216, 0089_QC106_241216, 0089_MW500_241216, 0089_QC107_241216, 0089_QC310_241216, 0089_QC403_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**02-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_241216, 0089_MW120_241216, 0089_MW121_241216, 0089_MW215_241216, 0089_MW216_241216, 0089_MW217_241216, 0089_MW220_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**03-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW282_241216	**16-Dec-2024**	**02-Jan-2025**	14-Jun-2025	✓	**06-Jan-2025**	14-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0089_MW288_241217, 0089_PW304_241217, 0089_PW345_241217, 0089_PW367_241217, 0089_PW368_241217, 0089_PW369_241217, 0089_PW346_241217, 0089_QC111_241217, 0089_QC113_241217, 0089_QC114_241217, 0089_QC313_241217, 0089_QC312_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**02-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X)							
0089_SW305_241217, 0089_SW370_241217, 0089_SW371_241217, 0089_SW372_241217, 0089_SW373_241217	**17-Dec-2024**	**02-Jan-2025**	15-Jun-2025	✓	**06-Jan-2025**	15-Jun-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW124_241218, 0089_MW125_241218, 0089_MW126_241218, 0089_MW127_241218, 0089_MW200_241218, 0089_MW468_241218, 0089_MW227_241218, 0089_PW363_241218, 0089_QC120_241218, 0089_PW341_241218, 0089_QC121_241218, 0089_PW362_241218, 0089_PW340_241218, 0089_PW364_241218, 0089_PW335_241218, 0089_QC314_241218, 0089_QC315_241218, 0089_QC405_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**02-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW228_241218, 0089_SW130_241218, 0089_SW132_241218, 0089_SW134_241218	**18-Dec-2024**	**02-Jan-2025**	16-Jun-2025	✓	**06-Jan-2025**	16-Jun-2025	✓
HDPE (no PTFE) (EP231X)							
0089_PW409_241217, 0089_PW413_241218, 0089_QC108_241217, 0089_QC110_241217, 0089_QC404_241217, 0089_QC311_241217, 0089_QC501_241219 - TBW1899	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X)							
0089_SW309_241218, 0089_SW310_241218, 0089_SW311_241218, 0089_SW406_241217, 0089_SW408_241217, 0089_SW410_241217, 0089_SW412_241218, 0089_SW414_241218, 0089_SW416_241218, 0089_SW317_241217, 0089_SW318_241217, 0089_SW319_241217, 0089_PW306_241218, 0089_PW405_241217, 0089_PW407_241217, 0089_PW411_241218, 0089_PW415_241218, 0089_PW374_241217, 0089_PW375_241217, 0089_PW378_241217	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	17-Jun-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0089_QC116_241218, 0089_QC117_241218, 0089_QC502_241219 - TBW1894, 0089_QC503_241219 - TBW1901, 0089_QC504_241219 - TBW1898, 0089_QC505_241219 - TBW1900	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**06-Jan-2025**	17-Jun-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	4	31	12.90	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	39	10.26	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	5.13	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	5.13	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	5.13	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	10	98	10.20	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	12	120	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	10	98	10.20	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	132	3.03	10.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	12	120	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	10	98	10.20	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	12	120	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	6	98	6.12	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	132	5.30	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	12	120	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Alkalinity by Auto Titrator	ED037-P	5	98	5.10	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	6	120	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	6	98	6.12	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	132	5.30	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	6	120	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Chloride by Discrete Analyser	ED045G	6	120	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	132	1.52	5.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	6	120	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

QUALITY CONTROL REPORT

Work Order	: **EP2419185**	Page	: 1 of 35
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024
Order number	: 12641234	Date Analysis Commenced	: 23-Dec-2024
C-O-C number	: 77239	Issue Date	: 09-Jan-2025
Sampler	: [redacted] [redacted]		
Site	: Stirling TA KD		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 161		
No. of samples analysed	: 161		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Supervisor	Perth Inorganics, Wangara, WA
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6289760)									
EP2419185-056	0089_SD335_241218	EA055: Moisture Content	---	0.1	%	35.8	36.8	2.8	0% - 20%
EP2419185-066	0089_SD369_241217	EA055: Moisture Content	---	0.1	%	36.6	36.2	1.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6289763)									
EP2419185-072	0089_SD315_241218	EA055: Moisture Content	---	0.1	%	20.0	19.6	2.2	0% - 20%
EP2419185-131	0089_QC112_241217	EA055: Moisture Content	---	0.1	%	35.8	36.5	1.8	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291858)									
EP2419185-056	0089_SD335_241218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2419185-066	0089_SD369_241217	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.0004	62.5	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291861)									
EP2419185-068	0089_SD306_241218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2419185-078	0089_SD413_241218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291858)									
EP2419185-056	0089_SD335_241218	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307 55 1	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2419185-066	0089_SD369_241217	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307 24 4	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058 94 8	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291861)									
EP2419185-068	0089_SD306_241218	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2419185-078	0089_SD413_241218	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291858)									
EP2419185-056	0089_SD335_241218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2419185-066	0089_SD369_241217	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291858) - continued									
EP2419185-066	0089_SD369_241217	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291861)									
EP2419185-068	0089_SD306_241218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2419185-078	0089_SD413_241218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291858)									
EP2419185-056	0089_SD335_241218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291858) - continued									
EP2419185-056	0089_SD335_241218	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2419185-066	0089_SD369_241217	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291861)									
EP2419185-068	0089_SD306_241218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2419185-078	0089_SD413_241218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6291858)									
EP2419185-056	0089_SD335_241218	EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2419185-066	0089_SD369_241217	EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	0.0004	66.7	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	0.0004	66.7	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	0.0004	66.7	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231P: PFAS Sums (QC Lot: 6291861)									
EP2419185-068	0089_SD306_241218	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2419185-078	0089_SD413_241218	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 6286850)									
EP2419185-002	0089_MW112_241216	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	244	246	0.6	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	244	246	0.6	0% - 20%
EP2419185-012	0089_MW161_241212	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	389	374	3.9	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	389	374	3.9	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 6286965)									
EP2419185-022	0089_MW468_241218	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	570	570	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	570	570	0.0	0% - 20%
EP2419185 032	0089 MW226 241216	ED037-P: Hydroxide Alkalinity as CaCO3	DMO 210 001	1	mg/L	1	1	0 0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	664	661	0.4	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	664	661	0.4	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 6286967)									
EP2419185-042	0089_MW240_241213	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	7	8	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	247	247	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	254	255	0.0	0% - 20%
EP2419185-052	0089_MW258_241213	ED037 P Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	488	480	1.7	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	488	480	1.7	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED037P: Alkalinity by PC Titrator (QC Lot: 6288699)									
EP2419185-088	0089_SW372_241217	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	141	143	1.2	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	141	143	1.2	0% - 20%
EP2419185-098	0089_SW416_241218	ED037 P Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	125	125	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	125	125	0.0	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 6288706)									
EP2419185-108	0089_PW306_241218	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	112	112	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	112	112	0.0	0% - 20%
EP2419185-126	0089_MW500_241216	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	381	382	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	381	382	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6281472)									
EP2419185-001	0089_MW109_241216	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	17	17	0.0	0% - 50%
EP2419185-011	0089_MW158_241212	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	443	439	0.9	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6281478)									
EP2419185-021	0089_MW195D_241212	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	758	825	8.5	0% - 20%
EP2419185-031	0089_MW225_241216	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	69	64	7.2	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6281480)									
EP2419185-041	0089_MW239_241213	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	41	41	0.0	0% - 20%
EP2419185-051	0089_MW257_241213	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	18	18	0.0	0% - 50%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6281487)									
EP2419185-087	0089_SW371_241217	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2440	2490	2.2	0% - 20%
EP2419185-097	0089_SW414_241218	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2570	3080	17.8	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6281505)									
EP2419185-107	0089_PW346_241217	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	1520	1460	3.5	0% - 20%
EP2419185-117	0089_PW378_241217	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2370	2440	2.9	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6281507)									
EP2419185-126	0089_MW500_241216	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	27	27	0.0	0% - 20%
EP2419327-004	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	14	14	0.0	0% - 50%
ED045G: Chloride by Discrete Analyser (QC Lot: 6281473)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED045G: Chloride by Discrete Analyser (QC Lot: 6281473) - continued									
EP2419185-001	0089_MW109_241216	ED045G: Chloride	16887-00-6	1	mg/L	62	63	0.0	0% - 20%
EP2419185-011	0089_MW158_241212	ED045G: Chloride	16887-00-6	1	mg/L	4720	4730	0.3	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6281479)									
EP2419185-021	0089_MW195D_241212	ED045G: Chloride	16887-00-6	1	mg/L	5330	5270	1.1	0% - 20%
EP2419185-031	0089_MW225_241216	ED045G: Chloride	16887-00-6	1	mg/L	714	729	2.1	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6281481)									
EP2419185-041	0089_MW239_241213	ED045G: Chloride	16887-00-6	1	mg/L	33	33	0.0	0% - 20%
EP2419185-051	0089_MW257_241213	ED045G: Chloride	16887-00-6	1	mg/L	30	31	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6281488)									
EP2419185-087	0089_SW371_241217	ED045G: Chloride	16887-00-6	1	mg/L	20300	20500	0.7	0% - 20%
EP2419185-097	0089_SW414_241218	ED045G: Chloride	16887-00-6	1	mg/L	21200	21100	0.4	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6281506)									
EP2419185-107	0089_PW346_241217	ED045G: Chloride	16887-00-6	1	mg/L	11200	11100	1.2	0% - 20%
EP2419185-117	0089_PW378_241217	ED045G: Chloride	16887-00-6	1	mg/L	20500	20400	0.3	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6281508)									
EP2419185-126	0089_MW500_241216	ED045G: Chloride	16887-00-6	1	mg/L	42	42	0.0	0% - 20%
EP2419327-004	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	11	10	0.0	0% - 50%
ED093F: Dissolved Major Cations (QC Lot: 6281414)									
EP2419185-001	0089_MW109_241216	ED093F: Calcium	7440-70-2	1	mg/L	87	89	2.7	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	16	16	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	38	39	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	2	2	0.0	No Limit
EP2419185-011	0089_MW158_241212	ED093F: Calcium	7440-70-2	1	mg/L	193	193	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	344	342	0.5	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	2350	2330	0.6	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	102	102	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 6281415)									
EP2419185-021	0089_MW195D_241212	ED093F: Calcium	7440-70-2	1	mg/L	251	253	0.9	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	460	465	0.9	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	3230	3240	0.3	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	139	141	1.4	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 6281416)									
EP2419185-031	0089_MW225_241216	ED093F: Calcium	7440-70-2	1	mg/L	150	150	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	57	57	0.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	303	303	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	8	8	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED093F: Dissolved Major Cations (QC Lot: 6281416) - continued									
EP2419185-041	0089_MW239_241213	ED093F: Calcium	7440-70-2	1	mg/L	83	84	1.9	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	11	11	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	26	25	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	3	3	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 6281417)									
EP2419185-051	0089_MW257_241213	ED093F: Calcium	7440-70-2	1	mg/L	58	57	1.7	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	7	7	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	21	21	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	4	4	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 6281419)									
EP2419185-087	0089_SW371_241217	ED093F: Calcium	7440-70-2	1	mg/L	426	424	0.4	0% - 20%
		ED093F Magnesium	7439-95-4	1	mg/L	1360	1350	0.8	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	10200	10100	0.9	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	571	565	1.0	0% - 20%
EP2419185-097	0089_SW414_241218	ED093F: Calcium	7440-70-2	1	mg/L	452	438	3.1	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	1450	1410	3.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	10800	10500	2.7	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	604	584	3.5	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 6281420)									
EP2419185 107	0089 PW346 241217	ED093F: Calcium	7440 70 2	1	mg/L	264	262	0 8	0% 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	770	765	0.7	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	5530	5500	0.6	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	323	320	0.8	0% - 20%
EP2419185-117	0089_PW378_241217	ED093F: Calcium	7440-70-2	1	mg/L	444	433	2.6	0% - 20%
		ED093F: Magnesium	7439 95 4	1	mg/L	1440	1400	2 5	0% 20%
		ED093F: Sodium	7440-23-5	1	mg/L	10600	10400	1.9	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	596	576	3.4	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291747)									
EP2419185-002	0089_MW112_241216	EP231X Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	7.86	8.52	8.1	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01 (0.05)*	µg/L	23.2	26.1	11.6	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.13	0.14	0.0	No Limit
		EP231X Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	1.89	2.24	16.6	0% - 20%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02 (0.05)*	µg/L	0.12	0.12	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2419185-047	0089_MW496_241213	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.81	0.82	2.1	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291747) - continued									
EP2419185-047	0089_MW496_241213	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01 (0.02)*	µg/L	8.18	8.76	6.8	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.08	0.08	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291757)									
EP2419185-091	0089_SW310_241218	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2419185-110	0089_PW407_241217	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291747)									
EP2419185-002	0089_MW112_241216	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	1.91	2.11	9.8	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.18	0.17	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.69	0.70	0.0	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.24	0.24	0.0	0% - 50%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2419185-047	0089_MW496_241213	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.08	0.09	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291747) - continued									
EP2419185-047	0089_MW496_241213	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.11	0.12	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1 (0.3)*	µg/L	<0.3	<0.3	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291757)									
EP2419185-091	0089_SW310_241218	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2419185-110	0089_PW407_241217	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.08	0.07	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291747)									
EP2419185-002	0089_MW112_241216	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	0.36	0.35	0.0	0% - 50%
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291747) - continued									
EP2419185-002	0089_MW112_241216	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2419185-047	0089_MW496_241213	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291757)									
EP2419185-091	0089_SW310_241218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2419185-110	0089_PW407_241217	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291757) - continued									
EP2419185-110	0089_PW407_241217	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291747)									
EP2419185-002	0089_MW112_241216	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.09	0.09	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2419185-047	0089_MW496_241213	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291757)									
EP2419185-091	0089_SW310_241218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2419185-110	0089_PW407_241217	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291757) - continued									
EP2419185-110	0089_PW407_241217	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6291747)									
EP2419185-002	0089_MW112_241216	EP231X: Sum of PFAS	----	0.01 (0.05)*	µg/L	36.8	40.9	10.6	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01 (0.05)*	µg/L	31.1	34.6	10.8	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01 (0.05)*	µg/L	34.2	38.0	10.4	0% - 20%
EP2419185-047	0089_MW496_241213	EP231X: Sum of PFAS	----	0.01 (0.02)*	µg/L	9.35	9.96	6.3	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01 (0.02)*	µg/L	8.99	9.58	6.4	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01 (0.02)*	µg/L	9.22	9.83	6.4	0% - 20%
EP231P: PFAS Sums (QC Lot: 6291757)									
EP2419185-091	0089_SW310_241218	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2419185-110	0089_PW407_241217	EP231X: Sum of PFAS	----	0.01	µg/L	0.14	0.13	7.4	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.14	0.13	7.4	0% - 50%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291858)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	113	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	105	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	107	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	113	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	113	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	114	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291861)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	117	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	108	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	106	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	105	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	116	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	114	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291858)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	110	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	127	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291861)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	111	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	69.0	132

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291861) - continued								
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	113	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	111	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291858)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	126	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	139	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291861)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	126	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	# 146	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	117	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	139	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291858)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	118	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	123	64.0	140

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291858) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	120	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	# 141	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291861)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	123	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	130	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	122	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	# 162	54.8	124
EP231P: PFAS Sums (QCLot: 6291858)								
EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291861)								
EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	---	---	---	---

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 6286850)								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-00 1	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1 <1	20 mg/L 200 mg/L	98.4 102	85.1 90.5	126 111
ED037P: Alkalinity by PC Titrator (QCLot: 6286965)								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-00 1	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1 <1	20 mg/L 200 mg/L	99.2 103	85.1 90.5	126 111
ED037P: Alkalinity by PC Titrator (QCLot: 6286967)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
ED037P: Alkalinity by PC Titrator (QCLot: 6286967) - continued								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1	20 mg/L	100	85.1	126
				<1	200 mg/L	104	90.5	111
ED037P: Alkalinity by PC Titrator (QCLot: 6288699)								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1	20 mg/L	97.2	85.1	126
				<1	200 mg/L	103	90.5	111
ED037P: Alkalinity by PC Titrator (QCLot: 6288706)								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1	20 mg/L	100	85.1	126
				<1	200 mg/L	103	90.5	111
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281472)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	97.5	89.9	112
				<1	500 mg/L	93.0	89.9	112
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281478)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	104	89.9	112
				<1	500 mg/L	92.2	89.9	112
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281480)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	100	89.9	112
				<1	500 mg/L	98.1	89.9	112
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281487)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	96.9	89.9	112
				<1	500 mg/L	95.7	89.9	112
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281505)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	97.3	89.9	112
				<1	500 mg/L	96.0	89.9	112

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281507)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	103	89.9	112
				<1	500 mg/L	92.3	89.9	112
ED045G: Chloride by Discrete Analyser (QCLot: 6281473)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	98.2	88.6	113
				<1	1000 mg/L	105	88.6	113
ED045G: Chloride by Discrete Analyser (QCLot: 6281479)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	104	88.6	113
				<1	1000 mg/L	102	88.6	113
ED045G: Chloride by Discrete Analyser (QCLot: 6281481)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	106	88.6	113
				<1	1000 mg/L	100	88.6	113
ED045G: Chloride by Discrete Analyser (QCLot: 6281488)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	108	88.6	113
				<1	1000 mg/L	100	88.6	113
ED045G: Chloride by Discrete Analyser (QCLot: 6281506)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	101	88.6	113
				<1	1000 mg/L	99.9	88.6	113
ED045G: Chloride by Discrete Analyser (QCLot: 6281508)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	104	88.6	113
				<1	1000 mg/L	99.2	88.6	113
ED093F: Dissolved Major Cations (QCLot: 6281414)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	91.4	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	98.4	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	92.7	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	90.1	84.6	108
ED093F: Dissolved Major Cations (QCLot: 6281415)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	97.3	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	104	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	97.4	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	95.4	84.6	108
ED093F: Dissolved Major Cations (QCLot: 6281416)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.5	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	101	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	97.4	91.4	113

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED093F: Dissolved Major Cations (QCLot: 6281416) - continued								
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	94.4	84.6	108
ED093F: Dissolved Major Cations (QCLot: 6281417)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.0	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	100	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	96.9	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	94.2	84.6	108
ED093F: Dissolved Major Cations (QCLot: 6281419)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.8	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	95.3	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	98.4	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	95.4	84.6	108
ED093F: Dissolved Major Cations (QCLot: 6281420)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	103	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	98.4	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	98.4	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	97.0	84.6	108
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291747)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	104	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	98.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	94.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	105	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	110	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	110	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	101	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291748)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	102	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	96.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	91.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.0	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	101	53.0	142

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291750)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	105	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	109	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	115	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	109	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	104	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	115	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	113	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291752)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	104	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	101	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	99.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	99.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	101	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	103	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	99.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291757)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	112	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	90.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	100	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	95.9	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	106	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	99.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291758)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	104	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	101	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	90.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	97.7	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	95.7	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	107	70.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291758) - continued								
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291761)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	101	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	102	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	98.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	105	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	105	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	109	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	101	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291747)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	104	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	108	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	120	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	107	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	109	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291748)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	100	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	99.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	93.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	108	71.0	132

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291750)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	95.7	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	118	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	129	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	100	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291752)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.3	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	96.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	108	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	90.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	97.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	109	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291757)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	108	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	124	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291757) - continued								
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	91.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291758)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	104	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	97.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	110	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	92.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	120	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	117	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	118	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291761)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	105	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291747)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	103	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	98.3	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.3	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	102	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	112	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291747) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291748)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	123	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	86.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	88.2	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	108	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	110	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	110	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291750)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	115	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	130	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.1	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	126	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	101	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291752)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	112	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	118	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.3	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	125	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	117	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	109	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	101	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291757)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	111	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	97.7	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	116	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	103	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291758)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	101	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.8	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	118	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	122	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	106	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291761)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	126	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	99.7	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	129	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	104	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	99.6	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291747)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	116	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	108	64.0	140

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291747) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	102	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	94.2	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291748)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	111	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	102	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	106	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	96.9	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291750)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	106	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	107	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	108	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	131	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291752)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	110	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	107	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	100	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	131	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291757)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	116	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	120	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	127	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	# 138	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291758)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	114	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	98.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	111	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	125	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291761)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	109	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	110	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	# 138	64.2	133
EP231P: PFAS Sums (QCLot: 6291747)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	---	----	---	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 6291747) - continued								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291748)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291750)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291752)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291757)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291758)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291761)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291858)							
EP2419185-057	0089_SD340_241218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	117	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	112	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	102	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	104	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	116	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	118	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	117	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291861)							
EP2419185-069	0089_SD307_241218	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	114	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	108	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	110	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	111	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	106	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	121	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	118	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291858)							
EP2419185-057	0089_SD340_241218	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	108	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	116	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	118	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	110	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	120	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	111	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	111	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	111	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	98.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	98.4	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	132	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291861)							
EP2419185-069	0089_SD307_241218	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	107	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	116	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	118	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	111	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	111	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	120	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	112	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	118	64.0	136

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291861) - continued							
EP2419185-069	0089_SD307_241218	EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	120	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	105	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	114	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291858)							
EP2419185-057	0089_SD340_241218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	123	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	122	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	105	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	114	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	# 138	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	110	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	113	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291861)							
EP2419185-069	0089_SD307_241218	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	# 132	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	# 149	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	101	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	119	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	# 143	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	100	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	106	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291858)							
EP2419185-057	0089_SD340_241218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	124	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	127	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	116	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	# 141	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291861)							
EP2419185-069	0089_SD307_241218	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	119	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	124	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	128	65.0	137

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291861) - continued							
EP2419185-069	0089_SD307_241218	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	# 181	60.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281472)							
EP2419185-001	0089_MW109_241216	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	109	70.4	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281478)							
EP2419185-021	0089_MW195D_241212	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	# Not Determined	70.4	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281480)							
EP2419185-041	0089_MW239_241213	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	121	70.4	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281487)							
EP2419185-087	0089_SW371_241217	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	# Not Determined	70.4	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281505)							
EP2419185-107	0089_PW346_241217	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	# Not Determined	70.4	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6281507)							
EP2419185-126	0089_MW500_241216	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	116	70.4	130
ED045G: Chloride by Discrete Analyser (QCLot: 6281473)							
EP2419185-001	0089_MW109_241216	ED045G: Chloride	16887-00-6	200 mg/L	128	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6281479)							
EP2419185-021	0089_MW195D_241212	ED045G: Chloride	16887-00-6	200 mg/L	# Not Determined	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6281481)							
EP2419185-041	0089_MW239_241213	ED045G: Chloride	16887-00-6	200 mg/L	129	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6281488)							
EP2419185-087	0089_SW371_241217	ED045G: Chloride	16887-00-6	200 mg/L	# Not Determined	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6281506)							
EP2419185-107	0089_PW346_241217	ED045G: Chloride	16887-00-6	200 mg/L	# Not Determined	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6281508)							
EP2419185-126	0089_MW500_241216	ED045G: Chloride	16887-00-6	200 mg/L	121	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291747)							
EP2419185-003	0089_MW120_241216	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	103	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	98.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	# Not Determined	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	# Not Determined	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	121	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	116	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291757)							
EP2419185-094	0089_SW408_241217	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	101	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	77.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	94.7	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	110	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	118	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	115	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	98.4	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291747)							
EP2419185-003	0089_MW120_241216	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	101	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	104	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	87.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	76.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	99.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	119	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	124	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	122	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	118	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291757)							
EP2419185-094	0089_SW408_241217	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	115	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	88.9	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	116	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	114	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	114	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	105	71.0	134

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291757) - continued							
EP2419185-094	0089_SW408_241217	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.7	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	88.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	120	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	93.7	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291747)							
EP2419185-003	0089_MW120_241216	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	112	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	# 134	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	125	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	90.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	112	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	121	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291757)							
EP2419185-094	0089_SW408_241217	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.8	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	123	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	93.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	108	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	130	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	125	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	99.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291747)							
EP2419185-003	0089_MW120_241216	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	114	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	120	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	114	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	109	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291757)							
EP2419185-094	0089_SW408_241217	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	115	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	67.9	64.0	140

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291757) - continued							
EP2419185-094	0089_SW408_241217	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	137	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	74.2	70.0	130

CHAIN OF CUSTODY

COC#: 77243 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 1315 20/12	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_SD350_241219		19/12/2024 02:26 PM	SOIL	ALS: 1 Non ALS: 0	No			X				
002	0089_SD351_241219	Sediment	19/12/2024 02:21 PM	SOIL	ALS: 1 Non ALS: 0	No			X				
003	0089_SD352_241219		19/12/2024 02:22 PM	SOIL	ALS: 1 Non ALS: 0	No			X				
004	0089_SD380_241219		19/12/2024 02:23 PM	SOIL	ALS: 1 Non ALS: 0	No			X				
005	0089_SD381_241219		19/12/2024 02:24 PM	SOIL	ALS: 1 Non ALS: 0	No			X				
006	0089_SD401_241219		19/12/2024 02:25 PM	SOIL	ALS: 1 Non ALS: 0	No			X				
007	0089_SW353_241219		19/12/2024 02:27 PM	WATER	ALS: 5 Non ALS: 0	No				X	X		

Environmental Division Perth

Work Order Reference

EP2419204

Telephone : +61-8-9406 1301

CHAIN OF CUSTODY

COC#: 77243 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_SW382_241219		19/12/2024 02:36 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		
009	0089_SW383_241219		19/12/2024 02:43 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		
010	0089_SW384_241219		19/12/2024 02:32 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		
011	0089_PW350_241219		19/12/2024 02:44 PM	WATER	ALS: 5 Non ALS: 0	No				X	X		
012	0089_PW351_241219		19/12/2024 02:38 PM	WATER	ALS: 5 Non ALS: 0	No				X	X		
013	0089_PW352_241219		19/12/2024 02:46 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		
014	0089_PW380_241219		19/12/2024 02:29 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		

CHAIN OF CUSTODY

COC#: **77243** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: HMAS Stirling

ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

PROJECT MANAGER [redacted]
PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_PW381_241219		19/12/2024 02:34 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		
016	0089_PW401_241219		19/12/2024 02:41 PM	WATER	ALS: 3 Non ALS: 0	No				X	X		
017	0089_QC316_241219		19/12/2024 02:51 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3					
018	0089_QC406_241219		19/12/2024 02:54 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						

CHAIN OF CUSTODY

COC#: 77243 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_SD350_241219	HDPE Soil Jar	200 mL	00621122024681	Grey	No	
002	0089_SD351_241219	HDPE Soil Jar	200 mL	00621122024675	Grey	No	
003	0089_SD352_241219	HDPE Soil Jar	200 mL	00621122024651	Grey	No	
004	0089_SD380_241219	HDPE Soil Jar	200 mL	00621122024719	Grey	No	
005	0089_SD381_241219	HDPE Soil Jar	200 mL	00621122024694	Grey	No	
006	0089_SD401_241219	HDPE Soil Jar	200 mL	00621122024732	Grey	No	
007	0089_SW353_241219	Clear Plastic Bottle - Natural	125 mL	00070522195091	Green	No	
007	0089_SW353_241219	HDPE (no PTFE)	20 mL	00352312076307	Grey	No	
007	0089_SW353_241219	HDPE (no PTFE)	20 mL	00352312075785	Grey	No	
007	0089_SW353_241219	HDPE (no PTFE)	20 mL	00352312076839	Grey	No	
007	0089_SW353_241219	HDPE (no PTFE)	20 mL	00352312076651	Grey	No	
008	0089_SW382_241219	Clear Plastic Bottle - Natural	125 mL	00070522195064	Green	No	
008	0089_SW382_241219	HDPE (no PTFE)	20 mL	00350822044604	Grey	No	
008	0089_SW382_241219	HDPE (no PTFE)	20 mL	00350822044610	Grey	No	
009	0089_SW383_241219	Clear Plastic Bottle - Natural	125 mL	00070522195231	Green	No	
009	0089_SW383_241219	HDPE (no PTFE)	20 mL	00352312077005	Grey	No	
009	0089_SW383_241219	HDPE (no PTFE)	20 mL	00352312077433	Grey	No	
010	0089_SW384_241219	Clear Plastic Bottle - Natural	125 mL	00070522195041	Green	No	
010	0089_SW384_241219	HDPE (no PTFE)	20 mL	00350822044659	Grey	No	
010	0089_SW384_241219	HDPE (no PTFE)	20 mL	00350822044521	Grey	No	
011	0089_PW350_241219	Clear Plastic Bottle - Natural	125 mL	00070522195290	Green	No	
011	0089_PW350_241219	HDPE (no PTFE)	20 mL	00352312076622	Grey	No	
011	0089_PW350_241219	HDPE (no PTFE)	20 mL	00352312077327	Grey	No	
011	0089_PW350_241219	HDPE (no PTFE)	20 mL	00352312076862	Grey	No	
011	0089_PW350_241219	HDPE (no PTFE)	20 mL	00352312076660	Grey	No	
012	0089_PW351_241219	Clear Plastic Bottle - Natural	125 mL	00070522195136	Green	No	

I OF CUSTODY

7243 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

)SER - GHD PTY LTD

-1234 - PFAS OMP

\S Stirling

I1234

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

GER: [redacted]

.ER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:

/ EP2024GHDSER0016

; TO: [redacted]

; TO: accountspayableau@ghd.com

9_PW351_241219	HDPE (no PTFE)	20 mL	00350822044631	Grey	No	
9_PW351_241219	HDPE (no PTFE)	20 mL	00350822044635	Grey	No	
9_PW351_241219	HDPE (no PTFE)	20 mL	00352312076557	Grey	No	
9_PW351_241219	HDPE (no PTFE)	20 mL	00352312076215	Grey	No	
9_PW352_241219	Clear Plastic Bottle - Natural	125 mL	00070522195208	Green	No	
9_PW352_241219	HDPE (no PTFE)	20 mL	00352312076785	Grey	No	
9_PW352_241219	HDPE (no PTFE)	20 mL	00352312076727	Grey	No	
9_PW380_241219	Clear Plastic Bottle - Natural	125 mL	00070522195184	Green	No	
9_PW380_241219	HDPE (no PTFE)	20 mL	00352312076887	Grey	No	
9_PW380_241219	HDPE (no PTFE)	20 mL	00352312076640	Grey	No	
9_PW381_241219	Clear Plastic Bottle - Natural	125 mL	00070522195259	Green	No	
9_PW381_241219	HDPE (no PTFE)	20 mL	00350822044593	Grey	No	
9_PW381_241219	HDPE (no PTFE)	20 mL	00350822044629	Grey	No	
9_PW401_241219	Clear Plastic Bottle - Natural	125 mL	00070522195080	Green	No	
9_PW401_241219	HDPE (no PTFE)	20 mL	00352312076720	Grey	No	
9_PW401_241219	HDPE (no PTFE)	20 mL	00352312076657	Grey	No	
89_QC316_241219	HDPE (no PTFE)	20 mL	00352312076665	Grey	No	
89_QC316_241219	HDPE (no PTFE)	20 mL	00352312076806	Grey	No	
89_QC406_241219	HDPE (no PTFE)	20 mL	00350822044570	Grey	No	
89_QC406_241219	HDPE (no PTFE)	20 mL	00350822044747	Grey	No	

Total Bottle Count: ALS: 46, Non ALS: 0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2419204**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: 12641234 - PFAS OMP	Page	: 1 of 3
Order number	: 12641234	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 77243	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: HMAS Stirling		
Sampler	: [redacted]		

Dates

Date Samples Received	: 20-Dec-2024 13:15	Issue Date	: 07-Jan-2025
Client Requested Due Date	: 06-Jan-2025	Scheduled Reporting Date	: **06-Jan-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 16.2 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 18 / 18

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2419204-001	19-Dec-2024 14:26	0089_SD350_241219	✓	✓
EP2419204-002	19-Dec-2024 14:21	0089_SD351_241219	✓	✓
EP2419204-003	19-Dec-2024 14:22	0089_SD352_241219	✓	✓
EP2419204-004	19-Dec-2024 14:23	0089_SD380_241219	✓	✓
EP2419204-005	19-Dec-2024 14:24	0089_SD381_241219	✓	✓
EP2419204-006	19-Dec-2024 14:25	0089_SD401_241219	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2419204-007	19-Dec-2024 14:27	0089_SW353_241219	✓	✓
EP2419204-008	19-Dec-2024 14:36	0089_SW382_241219	✓	✓
EP2419204-009	19-Dec-2024 14:43	0089_SW383_241219	✓	✓
EP2419204-010	19-Dec-2024 14:32	0089_SW384_241219	✓	✓
EP2419204-011	19-Dec-2024 14:44	0089_PW350_241219	✓	✓
EP2419204-012	19-Dec-2024 14:38	0089_PW351_241219	✓	✓
EP2419204-013	19-Dec-2024 14:46	0089_PW352_241219	✓	✓
EP2419204-014	19-Dec-2024 14:29	0089_PW380_241219	✓	✓
EP2419204-015	19-Dec-2024 14:34	0089_PW381_241219	✓	✓
EP2419204-016	19-Dec-2024 14:41	0089_PW401_241219	✓	✓
EP2419204-017	19-Dec-2024 14:51	0089_QC316_241219	✓	
EP2419204-018	19-Dec-2024 14:54	0089_QC406_241219	✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	GHD.LabReports@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	GHD.LabReports@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	GHD.LabReports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	GHD.LabReports@ghd.com
- Chain of Custody (CoC) (COC)	Email	GHD.LabReports@ghd.com
- EDI Format - ESDAT (ESDAT)	Email	GHD.LabReports@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	GHD.LabReports@ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

CERTIFICATE OF ANALYSIS

Work Order	: **EP2419204**	Page	: 1 of 20
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	[redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024 13:15
Order number	: 12641234	Date Analysis Commenced	: 24-Dec-2024
C-O-C number	: 77243	Issue Date	: 07-Jan-2025 18:05
Sampler	: [redacted]		
Site	: HMAS Stirling		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 18		
No. of samples analysed	: 18		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Supervisor	Perth Inorganics, Wangara, WA
	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
	Organic Supervisor	Perth Organics, Wangara, WA
	Inorganic Chemist	Perth Inorganics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EP231X-SUT: High LCS recovery deemed acceptable as all associated analytes are <LOR.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC406_241219	----	----	----	----
				Sampling date / time	19-Dec-2024 14:54	—	—	—	—
Compound	CAS Number	LOR	Unit		EP2419204-018	------	------	------	------
					Result	—	—	—	—
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC406_241219	----	----	----	----
				Sampling date / time	19-Dec-2024 14:54	—	—	—	—
Compound	CAS Number	LOR	Unit		EP2419204-018	-------	-------	-------	-------
					Result	—	—	—	—
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**118**	----	----	----	----
13C8-PFOA	---	0.02	%		**88.0**	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC316_241219	---	---	---	---
				Sampling date / time	19-Dec-2024 14:51	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419204-017	-------	-------	-------	-------
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	---	---	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	---	---	---	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC316_241219	----	----	----	----
				Sampling date / time	19-Dec-2024 14:51	—	—	—	—
Compound	CAS Number	LOR	Unit		EP2419204-017	-------	-------	-------	-------
					Result	—	—	—	—
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	—	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	—	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	—	0.02	%		123	----	----	----	----
13C8-PFOA	—	0.02	%		91.9	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD350_241219	0089_SD351_241219	0089_SD352_241219	0089_SD380_241219	0089_SD381_241219
				Sampling date / time	19-Dec-2024 14:26	19-Dec-2024 14:21	19-Dec-2024 14:22	19-Dec-2024 14:23	19-Dec-2024 14:24
Compound	CAS Number	LOR	Unit		EP2419204-001	EP2419204-002	EP2419204-003	EP2419204-004	EP2419204-005
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		22.7	24.7	21.8	22.0	20.4
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD350_241219	0089_SD351_241219	0089_SD352_241219	0089_SD380_241219	0089_SD381_241219
				Sampling date / time	19-Dec-2024 14:26	19-Dec-2024 14:21	19-Dec-2024 14:22	19-Dec-2024 14:23	19-Dec-2024 14:24
Compound	CAS Number	LOR	Unit		EP2419204-001	EP2419204-002	EP2419204-003	EP2419204-004	EP2419204-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**115**	**106**	**102**	**112**	**118**
13C8-PFOA	---	0.0002	%		**113**	**110**	**105**	**112**	**112**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD401_241219	---	---	---	---
			Sampling date / time	19-Dec-2024 14:25	---	---	---	---
Compound	CAS Number	LOR	Unit	EP2419204-006	-------	-------	-------	-------
				Result	---	---	---	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	**26.2**	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD401_241219	---	---	---	---
				Sampling date / time	19-Dec-2024 14:25	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419204-006	---	---	---	---
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	---	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		109	---	---	---	---
13C8-PFOA	---	0.0002	%		110	---	---	---	---

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0089_SW353_241219	0089_SW382_241219	0089_SW383_241219	0089_SW384_241219	----
			Sampling date / time	19-Dec-2024 14:27	19-Dec-2024 14:36	19-Dec-2024 14:43	19-Dec-2024 14:32	---
Compound	CAS Number	LOR	Unit	EP2419204-007	EP2419204-008	EP2419204-009	EP2419204-010	------
				Result	Result	Result	Result	---
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	122	123	123	123	----
Total Alkalinity as CaCO3	---	1	mg/L	122	123	123	123	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2610	2570	2630	2580	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	18700	18200	18300	18400	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	444	450	452	449	----
Magnesium	7439-95-4	1	mg/L	1410	1440	1440	1430	----
Sodium	7440-23-5	1	mg/L	10500	10600	10700	10600	----
Potassium	7440-09-7	1	mg/L	575	590	593	583	----
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	584	569	573	575	----
ø Total Cations	---	0.01	meq/L	610	617	622	616	----
ø Ionic Balance	---	0.01	%	2.12	4.02	4.04	3.43	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	<0.01	<0.01	0.01	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW353_241219	0089_SW382_241219	0089_SW383_241219	0089_SW384_241219	----
				Sampling date / time	19-Dec-2024 14:27	19-Dec-2024 14:36	19-Dec-2024 14:43	19-Dec-2024 14:32	---
Compound	CAS Number	LOR	Unit		EP2419204-007	EP2419204-008	EP2419204-009	EP2419204-010	------
					Result	Result	Result	Result	---
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW353_241219	0089_SW382_241219	0089_SW383_241219	0089_SW384_241219	----
				Sampling date / time	19-Dec-2024 14:27	19-Dec-2024 14:36	19-Dec-2024 14:43	19-Dec-2024 14:32	---
Compound	CAS Number	LOR	Unit		EP2419204-007	EP2419204-008	EP2419204-009	EP2419204-010	------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.01**	<0.01	<0.01	**0.01**	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	<0.01	<0.01	**0.01**	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.01**	<0.01	<0.01	**0.01**	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**104**	**107**	**106**	**107**	---
13C8-PFOA	---	0.02	%		**102**	**100**	**103**	**102**	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW350_241219	0089_PW351_241219	0089_PW352_241219	0089_PW380_241219	0089_PW381_241219
				Sampling date / time	19-Dec-2024 14:44	19-Dec-2024 14:38	19-Dec-2024 14:46	19-Dec-2024 14:29	19-Dec-2024 14:34
Compound	CAS Number	LOR	Unit		EP2419204-011	EP2419204-012	EP2419204-013	EP2419204-014	EP2419204-015
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		116	121	124	115	123
Total Alkalinity as CaCO3	---	1	mg/L		116	121	124	115	123
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2760	2850	2810	2900	2780
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		17100	17500	17700	17100	17000
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		454	451	477	481	454
Magnesium	7439-95-4	1	mg/L		1460	1440	1520	1540	1450
Sodium	7440-23-5	1	mg/L		10800	10600	11200	11300	10700
Potassium	7440-09-7	1	mg/L		594	590	627	636	593
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		542	555	560	545	540
ø Total Cations	---	0.01	meq/L		628	617	652	658	622
ø Ionic Balance	---	0.01	%		7.32	5.27	7.57	9.43	7.11
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		0.02	<0.01	<0.01	0.01	<0.01

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW350_241219	0089_PW351_241219	0089_PW352_241219	0089_PW380_241219	0089_PW381_241219
				Sampling date / time	19-Dec-2024 14:44	19-Dec-2024 14:38	19-Dec-2024 14:46	19-Dec-2024 14:29	19-Dec-2024 14:34
Compound	CAS Number	LOR	Unit		EP2419204-011	EP2419204-012	EP2419204-013	EP2419204-014	EP2419204-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW350_241219	0089_PW351_241219	0089_PW352_241219	0089_PW380_241219	0089_PW381_241219
				Sampling date / time	19-Dec-2024 14:44	19-Dec-2024 14:38	19-Dec-2024 14:46	19-Dec-2024 14:29	19-Dec-2024 14:34
Compound	CAS Number	LOR	Unit		EP2419204-011	EP2419204-012	EP2419204-013	EP2419204-014	EP2419204-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.02**	<0.01	<0.01	**0.01**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	<0.01	<0.01	**0.01**	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.02**	<0.01	<0.01	**0.01**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**109**	**110**	**107**	**120**	**113**
13C8-PFOA	---	0.02	%		**103**	**84.3**	**98.3**	**88.4**	**94.1**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW401_241219	---	---	---	---
				Sampling date / time	19-Dec-2024 14:41	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419204-016	-------	-------	-------	-------
					Result	---	---	---	---
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	---	---	---	---
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	---	---	---	---
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		118	---	---	---	---
Total Alkalinity as CaCO3	---	1	mg/L		118	---	---	---	---
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2910	---	---	---	---
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		16800	---	---	---	---
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		456	---	---	---	---
Magnesium	7439-95-4	1	mg/L		1460	---	---	---	---
Sodium	7440-23-5	1	mg/L		10700	---	---	---	---
Potassium	7440-09-7	1	mg/L		594	---	---	---	---
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		537	---	---	---	---
ø Total Cations	---	0.01	meq/L		624	---	---	---	---
ø Ionic Balance	---	0.01	%		7.47	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	---	---	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		0.01	---	---	---	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW401_241219	---	---	---	---
				Sampling date / time	19-Dec-2024 14:41	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419204-016	---	---	---	---
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	---	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	---	---	---	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW401_241219	---	---	---	---
				Sampling date / time	19-Dec-2024 14:41	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2419204-016	---	---	---	---
					Result	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.01**	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	---	---	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.01**	---	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**125**	---	---	---	---
13C8-PFOA	---	0.02	%		**88.6**	---	---	---	---

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	76	136
13C8-PFOA	—	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2419204**	Page	: 1 of 8
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024
Site	: HMAS Stirling	Issue Date	: 07-Jan-2025
Sampler	: [redacted]	No. of samples received	: 18
Order number	: 12641234	No. of samples analysed	: 18

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP231C: Perfluoroalkyl Sulfonamides	QC-6291718-002	---	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	2991-50-6	141 %	61.0-135%	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	EP2419204--011	0089_PW350_241219	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	---	**MS recovery not determined, background level greater than or equal to 4x spike level.**
ED045G: Chloride by Discrete Analyser	EP2419204--011	0089_PW350_241219	**Chloride**	16887-00-6	Not Determined	---	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Analysis Holding Time Compliance

Matrix: **WATER**

Method / Container / Client Sample ID(s)		*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	***Days overdue***	*Date analysed*	*Due for analysis*	***Days overdue***
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Natural							
0089_SW353_241219,	0089_SW382_241219,	---	---	---	07-Jan-2025	26-Dec-2024	**12**
0089_SW383_241219,	0089_SW384_241219,						
0089_PW350_241219,	0089_PW351_241219,						
0089_PW352_241219,	0089_PW380_241219,						
0089_PW381_241219,	0089_PW401_241219						

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	27	7.41	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	27	3.70	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD350_241219, 0089_SD351_241219, 0089_SD352_241219, 0089_SD380_241219, 0089_SD381_241219, 0089_SD401_241219	**19-Dec-2024**	---	---	---	**30-Dec-2024**	02-Jan-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD350_241219, 0089_SD351_241219, 0089_SD352_241219, 0089_SD380_241219, 0089_SD381_241219, 0089_SD401_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	11-Feb-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0089_SD350_241219, 0089_SD351_241219, 0089_SD352_241219, 0089_SD380_241219, 0089_SD381_241219, 0089_SD401_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	11-Feb-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0089_SD350_241219, 0089_SD351_241219, 0089_SD352_241219, 0089_SD380_241219, 0089_SD381_241219, 0089_SD401_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	11-Feb-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD350_241219, 0089_SD351_241219, 0089_SD352_241219, 0089_SD380_241219, 0089_SD381_241219, 0089_SD401_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	11-Feb-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0089_SD350_241219, 0089_SD351_241219, 0089_SD352_241219, 0089_SD380_241219, 0089_SD381_241219, 0089_SD401_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**03-Jan-2025**	11-Feb-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219	**19-Dec-2024**	**----**	----	----	**31-Dec-2024**	02-Jan-2025	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219	**19-Dec-2024**	**----**	----	----	**06-Jan-2025**	16-Jan-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219	**19-Dec-2024**	**----**	----	----	**30-Dec-2024**	16-Jan-2025	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219	**19-Dec-2024**	**----**	----	----	**06-Jan-2025**	16-Jan-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219	**19-Dec-2024**	**----**	----	----	**30-Dec-2024**	16-Jan-2025	✓
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Natural (ED093F)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219	**19-Dec-2024**	**----**	----	----	**07-Jan-2025**	26-Dec-2024	×
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219, 0089_QC316_241219, 0089_QC406_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219, 0089_QC316_241219, 0089_QC406_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219, 0089_QC316_241219, 0089_QC406_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219, 0089_QC316_241219, 0089_QC406_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0089_SW353_241219, 0089_SW382_241219, 0089_SW383_241219, 0089_SW384_241219, 0089_PW350_241219, 0089_PW351_241219, 0089_PW352_241219, 0089_PW380_241219, 0089_PW381_241219, 0089_PW401_241219, 0089_QC316_241219, 0089_QC406_241219	**19-Dec-2024**	**02-Jan-2025**	17-Jun-2025	✓	**02-Jan-2025**	17-Jun-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	6	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	3	24	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	27	7.41	10.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	3	26	11.54	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	4	24	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	27	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	26	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Alkalinity by Auto Titrator	ED037-P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	24	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	27	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Chloride by Discrete Analyser	ED045G	2	24	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	27	3.70	5.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

QUALITY CONTROL REPORT

Work Order	: **EP2419204**	Page	: 1 of 17
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 20-Dec-2024
Order number	: 12641234	Date Analysis Commenced	: 24-Dec-2024
C-O-C number	: 77243	Issue Date	: 07-Jan-2025
Sampler	: [redacted] [redacted]		
Site	: HMAS Stirling		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 18		
No. of samples analysed	: 18		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Supervisor	Perth Inorganics, Wangara, WA
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA
[redacted]	Inorganic Chemist	Perth Inorganics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6288130)									
EP2419204-001	0089_SD350_241219	EA055: Moisture Content	----	0.1	%	22.7	22.0	3.0	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291299)									
EP2419087-058	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2419242-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291299)									
EP2419087-058	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291299) - continued									
EP2419087-058	Anonymous	EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2419242-002	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291299)									
EP2419087-058	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991 50 6	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2419242 002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754 91 6	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291299) - continued									
EP2419242-002	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291299)									
EP2419087-058	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2419242-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6291299)									
EP2419087-058	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
EP2419242-002	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0003	0.0004	28.6	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0003	0.0004	28.6	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0003	0.0004	28.6	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 6290447)									
EP2419220-002	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	151	151	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	151	151	0.0	0% - 20%

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 6290447) - continued									
EP2419060-002	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	44	45	2.5	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	44	45	2.5	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6283999)									
EP2418894-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	190	193	1.2	0% - 20%
EP2419007-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	20	20	0.0	0% - 50%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6292252)									
EP2419204-012	0089_PW351_241219	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2850	2850	0.1	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6284000)									
EP2418894-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	600	610	1.7	0% - 20%
EP2419007-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	26	26	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6292253)									
EP2419204-012	0089_PW351_241219	ED045G Chloride	16887-00-6	1	mg/L	17500	17100	2.8	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 6283407)									
EP2419204-007	0089_SW353_241219	ED093F: Calcium	7440-70-2	1	mg/L	444	450	1.4	0% - 20%
		ED093F: Magnesium	7439 95 4	1	mg/L	1410	1440	1 7	0% 20%
		ED093F: Sodium	7440-23-5	1	mg/L	10500	10700	2.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	575	584	1.4	0% - 20%
EP2419337-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	<1	<1	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	<1	<1	0.0	No Limit
		ED093F: Sodium	7440 23 5	1	mg/L	1	1	0 0	No Limit
		ED093F: Potassium	7440-09-7	1	mg/L	<1	<1	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291718)									
EP2419204-012	0089_PW351_241219	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291732)									
EP2419204 007	0089 SW353 241219	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355 46 4	0 01	µg/L	0 01	0 01	0 0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6291732) - continued									
EP2419204-007	0089_SW353_241219	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291718)									
EP2419204-012	0089_PW351_241219	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6291732)									
EP2419204-007	0089_SW353_241219	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291718)									
EP2419204-012	0089_PW351_241219	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291718) - continued									
EP2419204-012	0089_PW351_241219	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6291732)									
EP2419204-007	0089_SW353_241219	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291718)									
EP2419204-012	0089_PW351_241219	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6291732)									
EP2419204-007	0089_SW353_241219	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6291718)									
EP2419204-012	0089_PW351_241219	EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 6291718) - continued									
EP2419204-012	0089_PW351_241219	EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6291732)									
EP2419204-007	0089_SW353_241219	EP231X: Sum of PFAS	----	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.01	0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291299)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	105	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	102	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	100	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	97.4	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	104	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	104	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291299)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	91.1	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.2	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	108	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291299)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	129	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.6	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	133	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291299)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291299) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	110	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	116	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	123	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	117	54.8	124
EP231P: PFAS Sums (QCLot: 6291299)								
EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	---	---	---	---

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 6290447)								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1	20 mg/L	98.5	85.1	126
				<1	200 mg/L	103	90.5	111
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6283999)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	99.6	89.9	112
				<1	500 mg/L	95.6	89.9	112
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6292252)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	94.6	89.9	112
				<1	500 mg/L	99.1	89.9	112
ED045G: Chloride by Discrete Analyser (QCLot: 6284000)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	97.6	88.6	113
				<1	1000 mg/L	103	88.6	113
ED045G: Chloride by Discrete Analyser (QCLot: 6292253)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	103	88.6	113
				<1	1000 mg/L	97.8	88.6	113
ED093F: Dissolved Major Cations (QCLot: 6283407)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	99.6	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	98.8	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	97.5	91.4	113

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED093F: Dissolved Major Cations (QCLot: 6283407) - continued								
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	95.3	84.6	108
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291718)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	108	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	120	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	113	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	110	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	102	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	113	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291732)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	107	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	103	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	99.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	106	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	97.3	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	99.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291740)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	119	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	120	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	108	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	116	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	115	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	107	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291718)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	126	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	122	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	122	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	120	71.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291718) - continued								
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	125	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	82.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291732)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	94.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	107	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291740)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	126	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	99.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	119	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	122	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	93.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	86.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291718)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	105	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	98.6	60.5	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291718) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	112	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	122	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	125	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	# 141	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291732)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	112	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	108	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	101	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291740)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	112	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	98.1	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	114	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	129	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	104	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	116	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291718)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	121	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	137	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	109	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291732)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291732) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	113	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	102	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	94.6	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291740)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	128	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	136	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	130	64.2	133
EP231P: PFAS Sums (QCLot: 6291718)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291732)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6291740)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291299)							
EP2419087-089	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	102	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	101	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	104	67.0	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291299) - continued							
EP2419087-089	Anonymous	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	96.6	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	92.9	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	108	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	104	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291299)							
EP2419087-089	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	96.0	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	92.7	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	99.3	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	99.2	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	105	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	106	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	101	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	94.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	102	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	120	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	97.7	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291299)							
EP2419087-089	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	111	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	124	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	98.3	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	106	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	106	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	111	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	85.9	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291299)							
EP2419087-089	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	105	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	109	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	102	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	106	60.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6283999)							

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6283999) - continued							
EP2418894-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	93.3	70.4	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6292252)							
EP2419204-011	0089_PW350_241219	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	# Not Determined	70.4	130
ED045G: Chloride by Discrete Analyser (QCLot: 6284000)							
EP2418894-001	Anonymous	ED045G: Chloride	16887-00-6	200 mg/L	110	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 6292253)							
EP2419204-011	0089_PW350_241219	ED045G: Chloride	16887-00-6	200 mg/L	# Not Determined	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6291732)							
EP2419204-011	0089_PW350_241219	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	106	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	105	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	104	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	107	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	110	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	111	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6291732)							
EP2419204-011	0089_PW350_241219	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	101	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	115	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	107	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	103	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	104	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	96.7	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	116	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	110	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	106	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	105	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291732)							
EP2419204-011	0089_PW350_241219	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	106	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	106	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	115	70.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6291732) - continued							
EP2419204-011	0089_PW350_241219	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	112	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	105	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6291732)							
EP2419204-011	0089_PW350_241219	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	124	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	111	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	100	70.0	130

CHAIN OF CUSTODY

COC#: **77820** ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/01 1230.	DATE TIME:	Environmental Division Perth

Work Order Reference
EP2500597

CLIENT: GHDSER - GHD PTY LTD
PROJECT: 12641234 - PFAS OMP
SITE: 0089 HMAS Stirling
ORDER NO: 12641234

TURNAROUND REQUIREMENTS : 5 Days
Biohazard info:

LABORATORY USE ONLY (Circle)
Custody Seal intact?
Free ice / frozen ice bricks present upon re
Random Sample Temperature on Receipt:
Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER: [redacted]
CONTACT PH: SAMPLER MOBILE: 0474 033 452
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

Telephone : 61-8-9406 1301

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_PW330_250114		14/01/2025 01:50 PM	WATER	ALS: 3 Non ALS: 0	No						X	X		
002	0089_PW329_250114		14/01/2025 11:24 AM	WATER	ALS: 3 Non ALS: 0	No						X	X		
003	0089_SW156_250114		14/01/2025 10:48 AM	WATER	ALS: 3 Non ALS: 0	No						X	X		
004	0089_SD329_250114-0.10		14/01/2025 11:01 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
005	0089_SD357_250114-0.10		14/01/2025 02:12 PM	SOIL	ALS: 1 Non ALS: 0	No					X				from porewater hole
006	0089_QC506_250114		14/01/2025 11:15 AM	WATER	ALS: 2 Non ALS: 0	No				X					no other noted transport blanks
007	0089_SW154_250114		14/01/2025 11:36 AM	WATER	ALS: 3 Non ALS: 0	No						X	X		

CHAIN OF CUSTODY

COC#: **77820** *ALS Laboratory*: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_SW152_250114		14/01/2025 11:44 AM	WATER	ALS: 3 Non ALS: 0	No						X	X		
009	0089_SW150_250114		14/01/2025 11:50 AM	WATER	ALS: 3 Non ALS: 0	No						X	X		
010	0089_QC122_250114		14/01/2025 12:06 PM	WATER	ALS: 2 Non ALS: 0	No							X		
011	0089_SD358_250114-0.10		14/01/2025 12:15 PM	SOIL	ALS: 1 Non ALS: 0	No					X				collected from porewater hole
012	0089_QC123_250114-0.10		14/01/2025 12:16 PM	SOIL	ALS: 1 Non ALS: 0	No					X				from ppewater hole
013	0089_PW358_250114		14/01/2025 12:32 PM	WATER	ALS: 3 Non ALS: 0	No						X	X		
014	0089_SD330_250114-0.10		14/01/2025 01:49 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **77820** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_PW357_250114		14/01/2025 02:13 PM	WATER	ALS: 3 Non ALS: 0	No						X	X		
016	0089_QC124_250114		14/01/2025 02:14 PM	WATER	ALS: 2 Non ALS: 0	No							X		
017	0089_SD331_250114-0.10		14/01/2025 02:30 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
018	0089_PW331_250114		14/01/2025 02:32 PM	WATER	ALS: 3 Non ALS: 0	No						X	X		
019	0089_PW356_250114		14/01/2025 02:49 PM	WATER	ALS: 3 Non ALS: 0	No						X	X		
020	0089_SD356_250114-0.10		14/01/2025 02:51 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
021	0089_QC407_250114		14/01/2025 03:05 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					

CHAIN OF CUSTODY

COC#: **77820** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_MW139_250115		15/01/2025 10:38 AM	WATER	ALS: 3 Non ALS: 0	No		X	X						
023	0089_QC317_250114		14/01/2025 03:10 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
024	0089_MW141_250115		15/01/2025 10:59 AM	WATER	ALS: 3 Non ALS: 0	No		X	X						
025	0089_MW147_250115		15/01/2025 11:30 AM	WATER	ALS: 3 Non ALS: 0	No		X	X						
026	0089_QC125_250115		15/01/2025 11:31 AM	WATER	ALS: 2 Non ALS: 0	No			X						
027	0089_MW149_250115		15/01/2025 11:42 AM	WATER	ALS: 3 Non ALS: 0	No		X	X						
028	0089_MW142_250115		15/01/2025 11:43 AM	WATER	ALS: 3 Non ALS: 0	No		X	X						

CHAIN OF CUSTODY

COC#: **77820** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - Major Ions GROUNDWATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_QC408_250115		15/01/2025 12:10 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								taken in 125ml bottles as did not have enough 20ml sets
030	0089_QC318_250115		15/01/2025 12:10 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								taken in 125ml bottle as not enough 20ml bottles set avaliable

CHAIN OF CUSTODY

COC#: **77820** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
021	0089_QC407_250114	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
023	0089_QC317_250114	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
029	0089_QC408_250115	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
030	0089_QC318_250115	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: 77820 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_PW330_250114	Clear Plastic Bottle - Natural	125 mL	00070523160649	Green	No	
001	0089_PW330_250114	HDPE (no PTFE)	20 mL	00352312075922	Grey	No	
001	0089_PW330_250114	HDPE (no PTFE)	20 mL	00352312076481	Grey	No	
002	0089_PW329_250114	Clear Plastic Bottle - Natural	125 mL	00070523130704	Green	No	
002	0089_PW329_250114	HDPE (no PTFE)	20 mL	00352312061057	Grey	No	
002	0089_PW329_250114	HDPE (no PTFE)	20 mL	00352312060765	Grey	No	
003	0089_SW156_250114	Clear Plastic Bottle - Natural	125 mL	00070523160627	Green	No	
003	0089_SW156_250114	HDPE (no PTFE)	20 mL	00352312060976	Grey	No	
003	0089_SW156_250114	HDPE (no PTFE)	20 mL	00352312061175	Grey	No	
004	0089_SD329_250114-0.10	HDPE Soil Jar	200 mL	00621222019911	Grey	No	
005	0089_SD357_250114-0.10	HDPE Soil Jar	200 mL	00621222019428	Grey	No	
006	0089_QC506_250114	HDPE (no PTFE)	20 mL	00350822046500	Grey	No	
006	0089_QC506_250114	HDPE (no PTFE)	20 mL	00350822046376	Grey	No	
007	0089_SW154_250114	HDPE (no PTFE)	20 mL	00352312060732	Grey	No	
007	0089_SW154_250114	Clear Plastic Bottle - Natural	125 mL	00071122319333	Green	No	
007	0089_SW154_250114	HDPE (no PTFE)	20 mL	00352312060703	Grey	No	
008	0089_SW152_250114	Clear Plastic Bottle - Natural	125 mL	00070523160592	Green	No	
008	0089_SW152_250114	HDPE (no PTFE)	20 mL	00352312075944	Grey	No	
008	0089_SW152_250114	HDPE (no PTFE)	20 mL	00352312075773	Grey	No	
009	0089_SW150_250114	Clear Plastic Bottle - Natural	125 mL	00070523160656	Green	No	
009	0089_SW150_250114	HDPE (no PTFE)	20 mL	00352312076149	Grey	No	
009	0089_SW150_250114	HDPE (no PTFE)	20 mL	00352312076089	Grey	No	
010	0089_QC122_250114	HDPE (no PTFE)	20 mL	00352312075914	Grey	No	
010	0089_QC122_250114	HDPE (no PTFE)	20 mL	00352312076100	Grey	No	
011	0089_SD358_250114-0.10	HDPE Soil Jar	200 mL	00621222019350	Grey	No	
012	0089_QC123_250114-0.10	HDPE Soil Jar	200 mL	00621122024650	Grey	No	

CHAIN OF CUSTODY

COC#: **77820** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

013	0089_PW358_250114	Clear Plastic Bottle - Natural	125 mL	00070523160580	Green	No	
013	0089_PW358_250114	HDPE (no PTFE)	20 mL	00352312077034	Grey	No	
013	0089_PW358_250114	HDPE (no PTFE)	20 mL	00352312076799	Grey	No	
014	0089_SD330_250114-0.10	HDPE Soil Jar	200 mL	00621223033335	Grey	No	
015	0089_PW357_250114	Clear Plastic Bottle - Natural	125 mL	00070523160587	Green	No	
015	0089_PW357_250114	HDPE (no PTFE)	20 mL	00352312060823	Grey	No	
015	0089_PW357_250114	HDPE (no PTFE)	20 mL	00352312061150	Grey	No	
016	0089_QC124_250114	HDPE (no PTFE)	20 mL	00352312075949	Grey	No	
016	0089_QC124_250114	HDPE (no PTFE)	20 mL	00352312076159	Grey	No	
017	0089_SD331_250114-0.10	HDPE Soil Jar	200 mL	00621122024785	Grey	No	
018	0089_PW331_250114	HDPE (no PTFE)	20 mL	00352312060534	Grey	No	
018	0089_PW331_250114	Clear Plastic Bottle - Natural	125 mL	00070523160665	Green	No	
018	0089_PW331_250114	HDPE (no PTFE)	20 mL	00352312060655	Grey	No	
019	0089_PW356_250114	HDPE (no PTFE)	20 mL	00352312076704	Grey	No	
019	0089_PW356_250114	HDPE (no PTFE)	20 mL	00352312077202	Grey	No	
019	0089_PW356_250114	Clear Plastic Bottle - Natural	125 mL	00070523160609	Green	No	
020	0089_SD356_250114-0.10	HDPE Soil Jar	200 mL	00621222019910	Grey	No	
021	0089_QC407_250114	HDPE (no PTFE)	20 mL	00352312076222	Grey	No	
021	0089_QC407_250114	HDPE (no PTFE)	20 mL	00352312076202	Grey	No	
022	0089_MW139_250115	Clear Plastic Bottle - Natural	125 mL	00070523160521	Green	No	
022	0089_MW139_250115	HDPE (no PTFE)	20 mL	00352312060663	Grey	No	
022	0089_MW139_250115	HDPE (no PTFE)	20 mL	00352312060635	Grey	No	
023	0089_QC317_250114	HDPE (no PTFE)	20 mL	00350822081379	Grey	No	
023	0089_QC317_250114	HDPE (no PTFE)	20 mL	00350822041387	Grey	No	
024	0089_MW141_250115	Clear Plastic Bottle - Natural	125 mL	00070523130692	Green	No	
024	0089_MW141_250115	HDPE (no PTFE)	20 mL	00352312076245	Grey	No	
024	0089_MW141_250115	HDPE (no PTFE)	20 mL	00352312076539	Grey	No	

CHAIN OF CUSTODY

COC#: 77820 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: 12641234 - PFAS OMP

SITE: 0089 HMAS Stirling

ORDER NO: 12641234

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE: 0474 033 452

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

025	0089_MW147_250115	HDPE (no PTFE)	20 mL	00352312076552	Grey	No	
025	0089_MW147_250115	Clear Plastic Bottle - Natural	125 mL	00070523130721	Green	No	
025	0089_MW147_250115	HDPE (no PTFE)	20 mL	00352312075962	Grey	No	
026	0089_QC125_250115	HDPE (no PTFE)	20 mL	00352312075724	Grey	No	
026	0089_QC125_250115	HDPE (no PTFE)	20 mL	00352312076333	Grey	No	
027	0089_MW149_250115	Clear Plastic Bottle - Natural	125 mL	00070523160645	Green	No	
027	0089_MW149_250115	HDPE (no PTFE)	20 mL	00352312076377	Grey	No	
027	0089_MW149_250115	HDPE (no PTFE)	20 mL	00352312075836	Grey	No	
028	0089_MW142_250115	Clear Plastic Bottle - Natural	125 mL	00070523160661	Green	No	
028	0089_MW142_250115	HDPE (no PTFE)	20 mL	00350822081353	Grey	No	
028	0089_MW142_250115	HDPE (no PTFE)	20 mL	00350822057945	Grey	No	
029	0089_QC408_250115	HDPE (no PTFE)	125 mL	00351223021968	Grey	No	
029	0089_QC408_250115	HDPE (no PTFE)	125 mL	00352302004383	Grey	No	
030	0089_QC318_250115	HDPE (no PTFE)	125 mL	00352302004372	Grey	No	
030	0089_QC318_250115	HDPE (no PTFE)	125 mL	00351223021875	Grey	No	

Total Bottle Count: ALS: 68, Non ALS: 0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2500597**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: 12641234 - PFAS OMP	Page	: 1 of 4
Order number	: 12641234	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 77820	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0089 HMAS Stirling		
Sampler	: [redacted] [redacted]		

Dates

Date Samples Received	: 16-Jan-2025 12:30	Issue Date	: 18-Jan-2025
Client Requested Due Date	: 24-Jan-2025	Scheduled Reporting Date	: **24-Jan-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 12.0 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 30 / 30

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

EP2500597-004	: 14-Jan-2025 11:01	: 0089_SD329_250114-0.10
EP2500597-005	: 14-Jan-2025 14:12	: 0089_SD357_250114-0.10
EP2500597-011	: 14-Jan-2025 12:15	: 0089_SD358_250114-0.10
EP2500597-012	: 14-Jan-2025 12:16	: 0089_QC123_250114-0.10
EP2500597-014	: 14-Jan-2025 13:49	: 0089_SD330_250114-0.10
EP2500597-017	: 14-Jan-2025 14:30	: 0089_SD331_250114-0.10
EP2500597-020	: 14-Jan-2025 14:51	: 0089_SD356_250114-0.10

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2500597-004	14-Jan-2025 11:01	0089_SD329_250114-0....	✓	✓
EP2500597-005	14-Jan-2025 14:12	0089_SD357_250114-0....	✓	✓
EP2500597-011	14-Jan-2025 12:15	0089_SD358_250114-0....	✓	✓
EP2500597-012	14-Jan-2025 12:16	0089_QC123_250114-0....	✓	✓
EP2500597-014	14-Jan-2025 13:49	0089_SD330_250114-0....	✓	✓
EP2500597-017	14-Jan-2025 14:30	0089_SD331_250114-0....	✓	✓
EP2500597-020	14-Jan-2025 14:51	0089_SD356_250114-0....	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2500597-001	14-Jan-2025 13:50	0089_PW330_250114	✓	✓
EP2500597-002	14-Jan-2025 11:24	0089_PW329_250114	✓	✓
EP2500597-003	14-Jan-2025 10:48	0089_SW156_250114	✓	✓
EP2500597-006	14-Jan-2025 11:15	0089_QC506_250114	✓	
EP2500597-007	14-Jan-2025 11:36	0089_SW154_250114	✓	✓
EP2500597-008	14-Jan-2025 11:44	0089_SW152_250114	✓	✓
EP2500597-009	14-Jan-2025 11:50	0089_SW150_250114	✓	✓
EP2500597-010	14-Jan-2025 12:06	0089_QC122_250114	✓	
EP2500597-013	14-Jan-2025 12:32	0089_PW358_250114	✓	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity
EP2500597-015	14-Jan-2025 14:13	0089_PW357_250114	✓	✓
EP2500597-016	14-Jan-2025 14:14	0089_QC124_250114	✓	
EP2500597-018	14-Jan-2025 14:32	0089_PW331_250114	✓	✓
EP2500597-019	14-Jan-2025 14:49	0089_PW356_250114	✓	✓
EP2500597-021	14-Jan-2025 15:05	0089_QC407_250114	✓	
EP2500597-022	15-Jan-2025 10:38	0089_MW139_250115	✓	✓
EP2500597-023	14-Jan-2025 15:10	0089_QC317_250114	✓	
EP2500597-024	15-Jan-2025 10:59	0089_MW141_250115	✓	✓
EP2500597-025	15-Jan-2025 11:30	0089_MW147_250115	✓	✓
EP2500597-026	15-Jan-2025 11:31	0089_QC125_250115	✓	
EP2500597-027	15-Jan-2025 11:42	0089_MW149_250115	✓	✓
EP2500597-028	15-Jan-2025 11:43	0089_MW142_250115	✓	✓
EP2500597-029	15-Jan-2025 12:10	0089_QC408_250115	✓	
EP2500597-030	15-Jan-2025 12:10	0089_QC318_250115	✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	GHD.LabReports@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	GHD.LabReports@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	GHD.LabReports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	GHD.LabReports@ghd.com
- EDI Format - ESDAT (ESDAT)	Email	GHD.LabReports@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	GHD.LabReports@ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

CERTIFICATE OF ANALYSIS

Work Order	: **EP2500597**	Page	: 1 of 24
Client	: GHD PTY LTD	Laboratory	: Environmental Division Perth
Contact	[redacted]	Contact	[redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 16-Jan-2025 12:30
Order number	: 12641234	Date Analysis Commenced	: 20-Jan-2025
C-O-C number	: 77820	Issue Date	: 24-Jan-2025 12:41
Sampler	: [redacted]		
Site	: 0089 HMAS Stirling		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 30		
No. of samples analysed	: 30		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EP231X: LOR has been raised for particular analytes on certain samples due to matrix interference.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where LISTED. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW139_250115	0089_MW141_250115	0089_MW147_250115	0089_QC125_250115	0089_MW149_250115
			Sampling date / time	15-Jan-2025 10:38	15-Jan-2025 10:59	15-Jan-2025 11:30	15-Jan-2025 11:31	15-Jan-2025 11:42
Compound	CAS Number	LOR	Unit	EP2500597-022	EP2500597-024	EP2500597-025	EP2500597-026	EP2500597-027
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	208	657	511	----	415
Total Alkalinity as CaCO3	---	1	mg/L	208	657	511	----	415
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	123	824	498	----	804
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	990	9050	5400	----	5430
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	127	321	241	----	167
Magnesium	7439-95-4	1	mg/L	66	551	325	----	346
Sodium	7440-23-5	1	mg/L	453	4060	2410	----	2540
Potassium	7440-09-7	1	mg/L	26	217	118	----	146
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	34.6	286	173	----	178
ø Total Cations	---	0.01	meq/L	32.1	244	147	----	151
ø Ionic Balance	---	0.01	%	3.75	7.95	8.23	----	8.25
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.18	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.83	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	1.52	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	24.7	0.08	0.09	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.90	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	72.6	<0.01	<0.01	0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW139_250115	0089_MW141_250115	0089_MW147_250115	0089_QC125_250115	0089_MW149_250115
				Sampling date / time	15-Jan-2025 10:38	15-Jan-2025 10:59	15-Jan-2025 11:30	15-Jan-2025 11:31	15-Jan-2025 11:42
Compound	CAS Number	LOR	Unit		EP2500597-022	EP2500597-024	EP2500597-025	EP2500597-026	EP2500597-027
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.19	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**1.99**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**17.0**	**0.07**	**0.07**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.51**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**1.67**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW139_250115	0089_MW141_250115	0089_MW147_250115	0089_QC125_250115	0089_MW149_250115
				Sampling date / time	15-Jan-2025 10:38	15-Jan-2025 10:59	15-Jan-2025 11:30	15-Jan-2025 11:31	15-Jan-2025 11:42
Compound	CAS Number	LOR	Unit		EP2500597-022	EP2500597-024	EP2500597-025	EP2500597-026	EP2500597-027
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	0.06	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	122	0.15	0.16	0.05
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	97.3	0.08	0.09	0.05
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	120	0.15	0.16	0.05
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		109	99.2	109	112	105
13C8-PFOA	---	0.02	%		103	107	104	103	101

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW142_250115	---	---	---	---
			Sampling date / time	15-Jan-2025 11:43	---	---	---	---
Compound	CAS Number	LOR	Unit	EP2500597-028	-------	-------	-------	-------
				Result	---	---	---	---
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	---	---	---	---
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	484	---	---	---	---
Total Alkalinity as CaCO3	---	1	mg/L	484	---	---	---	---
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	1240	---	---	---	---
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	7920	---	---	---	---
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	232	---	---	---	---
Magnesium	7439-95-4	1	mg/L	539	---	---	---	---
Sodium	7440-23-5	1	mg/L	3940	---	---	---	---
Potassium	7440-09-7	1	mg/L	260	---	---	---	---
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	259	---	---	---	---
ø Total Cations	---	0.01	meq/L	234	---	---	---	---
ø Ionic Balance	---	0.01	%	5.06	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.06	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.08	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.16	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.02	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.33	---	---	---	---

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW142_250115	---	---	---	---
				Sampling date / time	15-Jan-2025 11:43	---	---	---	---
Compound	CAS Number	LOR	Unit		EP2500597-028	---	---	---	---
					Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.04**	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.55**	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.06**	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	---	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	---	---	---	---

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW142_250115	---	---	---	---
				Sampling date / time	15-Jan-2025 11:43	—	—	—	—
Compound	CAS Number	LOR	Unit		EP2500597-028	-------	-------	-------	-------
					Result	—	—	—	—
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**3.30**	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.49**	---	---	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		**3.20**	---	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**109**	---	---	---	---
13C8-PFOA	---	0.02	%		**106**	---	---	---	---

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0089_QC506_250114	0089_QC407_250114	0089_QC317_250114	0089_QC408_250115	0089_QC318_250115
				Sampling date / time	14-Jan-2025 11:15	14-Jan-2025 15:05	14-Jan-2025 15:10	15-Jan-2025 12:10	15-Jan-2025 12:10
					EP2500597-006	EP2500597-021	EP2500597-023	EP2500597-029	EP2500597-030
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC506_250114	0089_QC407_250114	0089_QC317_250114	0089_QC408_250115	0089_QC318_250115
				Sampling date / time	14-Jan-2025 11:15	14-Jan-2025 15:05	14-Jan-2025 15:10	15-Jan-2025 12:10	15-Jan-2025 12:10
Compound	CAS Number	LOR	Unit		EP2500597-006	EP2500597-021	EP2500597-023	EP2500597-029	EP2500597-030
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**114**	**112**	**108**	**102**	**110**
13C8-PFOA	---	0.02	%		**105**	**108**	**112**	**101**	**104**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD329_250114-0.10	0089_SD357_250114-0.10	0089_SD358_250114-0.10	0089_QC123_250114-0.10	0089_SD330_250114-0.10
			Sampling date / time	14-Jan-2025 11:01	14-Jan-2025 14:12	14-Jan-2025 12:15	14-Jan-2025 12:16	14-Jan-2025 13:49
Compound	CAS Number	LOR	Unit	EP2500597-004	EP2500597-005	EP2500597-011	EP2500597-012	EP2500597-014
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	21.4	30.7	29.8	25.5	31.2
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD329_250114-0.10	0089_SD357_250114-0.10	0089_SD358_250114-0.10	0089_QC123_250114-0.10	0089_SD330_250114-0.10
				Sampling date / time	14-Jan-2025 11:01	14-Jan-2025 14:12	14-Jan-2025 12:15	14-Jan-2025 12:16	14-Jan-2025 13:49
Compound	CAS Number	LOR	Unit		EP2500597-004	EP2500597-005	EP2500597-011	EP2500597-012	EP2500597-014
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		108	118	100	109	110
13C8-PFOA	---	0.0002	%		102	105	116	102	102

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD331_250114-0.10	0089_SD356_250114-0.10	---	---	---
			Sampling date / time	14-Jan-2025 14:30	14-Jan-2025 14:51	---	---	---
Compound	CAS Number	LOR	Unit	EP2500597-017	EP2500597-020	---	---	---
				Result	Result	---	---	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	32.7	29.0	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	---	---	---

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD331_250114-0.10	0089_SD356_250114-0.10	---	---	---
				Sampling date / time	14-Jan-2025 14:30	14-Jan-2025 14:51	---	---	---
Compound	CAS Number	LOR	Unit		EP2500597-017	EP2500597-020	---	---	---
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	---	---	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		111	112	---	---	---
13C8-PFOA	---	0.0002	%		110	105	---	---	---

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0089_SW156_250114	0089_SW154_250114	0089_SW152_250114	0089_SW150_250114	0089_QC122_250114
			Sampling date / time	14-Jan-2025 10:48	14-Jan-2025 11:36	14-Jan-2025 11:44	14-Jan-2025 11:50	14-Jan-2025 12:06
Compound	CAS Number	LOR	Unit	EP2500597-003	EP2500597-007	EP2500597-008	EP2500597-009	EP2500597-010
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	126	127	128	127	----
Total Alkalinity as CaCO3	---	1	mg/L	126	127	128	127	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2840	2820	2920	2910	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	19400	19600	20800	19700	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	460	468	460	465	----
Magnesium	7439-95-4	1	mg/L	1320	1330	1320	1330	----
Sodium	7440-23-5	1	mg/L	10000	10100	10100	10200	----
Potassium	7440-09-7	1	mg/L	531	536	534	533	----
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	609	614	650	619	----
ø Total Cations	---	0.01	meq/L	580	586	584	590	----
ø Ionic Balance	---	0.01	%	2.42	2.36	5.31	2.39	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW156_250114	0089_SW154_250114	0089_SW152_250114	0089_SW150_250114	0089_QC122_250114
				Sampling date / time	14-Jan-2025 10:48	14-Jan-2025 11:36	14-Jan-2025 11:44	14-Jan-2025 11:50	14-Jan-2025 12:06
Compound	CAS Number	LOR	Unit		EP2500597-003	EP2500597-007	EP2500597-008	EP2500597-009	EP2500597-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW156_250114	0089_SW154_250114	0089_SW152_250114	0089_SW150_250114	0089_QC122_250114
				Sampling date / time	14-Jan-2025 10:48	14-Jan-2025 11:36	14-Jan-2025 11:44	14-Jan-2025 11:50	14-Jan-2025 12:06
Compound	CAS Number	LOR	Unit		EP2500597-003	EP2500597-007	EP2500597-008	EP2500597-009	EP2500597-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		109	106	110	109	110
13C8-PFOA	---	0.02	%		105	103	104	105	106

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW330_250114	0089_PW329_250114	0089_PW358_250114	0089_PW357_250114	0089_QC124_250114
			Sampling date / time	14-Jan-2025 13:50	14-Jan-2025 11:24	14-Jan-2025 12:32	14-Jan-2025 14:13	14-Jan-2025 14:14
Compound	CAS Number	LOR	Unit	EP2500597-001	EP2500597-002	EP2500597-013	EP2500597-015	EP2500597-016
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	133	155	144	120	----
Total Alkalinity as CaCO3	---	1	mg/L	133	155	144	120	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2960	3000	2940	2970	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	21600	21900	22400	21400	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	478	492	480	492	----
Magnesium	7439-95-4	1	mg/L	1360	1390	1390	1410	----
Sodium	7440-23-5	1	mg/L	10400	10600	10600	10700	----
Potassium	7440-09-7	1	mg/L	549	554	557	564	----
EN055: Ionic Balance								
ø Total Anions	---	0.01	meq/L	674	683	696	668	----
ø Total Cations	---	0.01	meq/L	602	614	614	620	----
ø Ionic Balance	---	0.01	%	5.60	5.33	6.28	3.68	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW330_250114	0089_PW329_250114	0089_PW358_250114	0089_PW357_250114	0089_QC124_250114
				Sampling date / time	14-Jan-2025 13:50	14-Jan-2025 11:24	14-Jan-2025 12:32	14-Jan-2025 14:13	14-Jan-2025 14:14
Compound	CAS Number	LOR	Unit		EP2500597-001	EP2500597-002	EP2500597-013	EP2500597-015	EP2500597-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW330_250114	0089_PW329_250114	0089_PW358_250114	0089_PW357_250114	0089_QC124_250114
				Sampling date / time	14-Jan-2025 13:50	14-Jan-2025 11:24	14-Jan-2025 12:32	14-Jan-2025 14:13	14-Jan-2025 14:14
Compound	CAS Number	LOR	Unit		EP2500597-001	EP2500597-002	EP2500597-013	EP2500597-015	EP2500597-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		111	108	109	104	104
13C8-PFOA	---	0.02	%		107	107	100	101	104

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW331_250114	0089_PW356_250114	---	---	---
				Sampling date / time	14-Jan-2025 14:32	14-Jan-2025 14:49	---	---	---
Compound	CAS Number	LOR	Unit		EP2500597-018	EP2500597-019	------	------	------
					Result	Result	---	---	---
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	---	---	---
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	---	---	---
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		272	328	---	---	---
Total Alkalinity as CaCO3	---	1	mg/L		272	328	---	---	---
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2980	3020	---	---	---
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		21400	21800	---	---	---
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		535	488	---	---	---
Magnesium	7439-95-4	1	mg/L		1400	1430	---	---	---
Sodium	7440-23-5	1	mg/L		10600	10800	---	---	---
Potassium	7440-09-7	1	mg/L		563	579	---	---	---
EN055: Ionic Balance									
ø Total Anions	---	0.01	meq/L		671	684	---	---	---
ø Total Cations	---	0.01	meq/L		617	627	---	---	---
ø Ionic Balance	---	0.01	%		4.17	4.40	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	---	---	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW331_250114	0089_PW356_250114	---	---	---
				Sampling date / time	14-Jan-2025 14:32	14-Jan-2025 14:49	---	---	---
Compound	CAS Number	LOR	Unit		EP2500597-018	EP2500597-019	------	-------	-------
					Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	---	---	---

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW331_250114	0089_PW356_250114	---	---	---
				Sampling date / time	14-Jan-2025 14:32	14-Jan-2025 14:49	---	---	---
Compound	CAS Number	LOR	Unit		EP2500597-018	EP2500597-019	------	-------	-------
					Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	---	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		102	109	---	---	---
13C8-PFOA	---	0.02	%		104	103	---	---	---

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	76	136
13C8-PFOA	—	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2500597**	Page	: 1 of 10
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 16-Jan-2025
Site	: 0089 HMAS Stirling	Issue Date	: 24-Jan-2025
Sampler	: [redacted] [redacted]	No. of samples received	: 30
Order number	: 12641234	No. of samples analysed	: 30

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	EP2500344--002	Anonymous	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	---	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	29	6.90	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	29	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD329_250114-0.10, 0089_SD357_250114-0.10, 0089_SD358_250114-0.10, 0089_QC123_250114-0.10, 0089_SD330_250114-0.10, 0089_SD331_250114-0.10, 0089_SD356_250114-0.10	**14-Jan-2025**	---	---	---	**20-Jan-2025**	28-Jan-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD329_250114-0.10, 0089_SD357_250114-0.10, 0089_SD358_250114-0.10, 0089_QC123_250114-0.10, 0089_SD330_250114-0.10, 0089_SD331_250114-0.10, 0089_SD356_250114-0.10	**14-Jan-2025**	**21-Jan-2025**	13-Jul-2025	✓	**21-Jan-2025**	02-Mar-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0089_SD329_250114-0.10, 0089_SD357_250114-0.10, 0089_SD358_250114-0.10, 0089_QC123_250114-0.10, 0089_SD330_250114-0.10, 0089_SD331_250114-0.10, 0089_SD356_250114-0.10	**14-Jan-2025**	**21-Jan-2025**	13-Jul-2025	✓	**21-Jan-2025**	02-Mar-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0089_SD329_250114-0.10, 0089_SD357_250114-0.10, 0089_SD358_250114-0.10, 0089_QC123_250114-0.10, 0089_SD330_250114-0.10, 0089_SD331_250114-0.10, 0089_SD356_250114-0.10	**14-Jan-2025**	**21-Jan-2025**	13-Jul-2025	✓	**21-Jan-2025**	02-Mar-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD329_250114-0.10, 0089_SD357_250114-0.10, 0089_SD358_250114-0.10, 0089_QC123_250114-0.10, 0089_SD330_250114-0.10, 0089_SD331_250114-0.10, 0089_SD356_250114-0.10	**14-Jan-2025**	**21-Jan-2025**	13-Jul-2025	✓	**21-Jan-2025**	02-Mar-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0089_SD329_250114-0.10, 0089_SD357_250114-0.10, 0089_SD358_250114-0.10, 0089_QC123_250114-0.10, 0089_SD330_250114-0.10, 0089_SD331_250114-0.10, 0089_SD356_250114-0.10	**14-Jan-2025**	**21-Jan-2025**	13-Jul-2025	✓	**21-Jan-2025**	02-Mar-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_PW331_250114, 0089_PW356_250114	**14-Jan-2025**	---	---	---	**21-Jan-2025**	28-Jan-2025	✓
Clear Plastic Bottle - Natural (ED037-P)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_MW149_250115, 0089_MW142_250115	**15-Jan-2025**	---	---	---	**21-Jan-2025**	29-Jan-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_PW331_250114, 0089_PW356_250114	**14-Jan-2025**	---	---	---	**21-Jan-2025**	11-Feb-2025	✓
Clear Plastic Bottle - Natural (ED041G)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_MW149_250115, 0089_MW142_250115	**15-Jan-2025**	---	---	---	**21-Jan-2025**	12-Feb-2025	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_PW331_250114, 0089_PW356_250114	**14-Jan-2025**	---	---	---	**21-Jan-2025**	11-Feb-2025	✓
Clear Plastic Bottle - Natural (ED045G)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_MW149_250115, 0089_MW142_250115	**15-Jan-2025**	---	---	---	**21-Jan-2025**	12-Feb-2025	✓
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Natural (ED093F)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_PW331_250114, 0089_PW356_250114	**14-Jan-2025**	---	---	---	**20-Jan-2025**	21-Jan-2025	✓
Clear Plastic Bottle - Natural (ED093F)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_MW149_250115, 0089_MW142_250115	**15-Jan-2025**	---	---	---	**20-Jan-2025**	22-Jan-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_QC506_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_QC122_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_QC124_250114, 0089_PW331_250114, 0089_PW356_250114, 0089_QC407_250114, 0089_QC317_250114	**14-Jan-2025**	**20-Jan-2025**	13-Jul-2025	✓	**20-Jan-2025**	13-Jul-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_QC125_250115, 0089_MW149_250115, 0089_MW142_250115, 0089_QC408_250115, 0089_QC318_250115	**15-Jan-2025**	**20-Jan-2025**	14-Jul-2025	✓	**20-Jan-2025**	14-Jul-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_QC506_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_QC122_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_QC124_250114, 0089_PW331_250114, 0089_PW356_250114, 0089_QC407_250114, 0089_QC317_250114	**14-Jan-2025**	**20-Jan-2025**	13-Jul-2025	✓	**20-Jan-2025**	13-Jul-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_QC125_250115, 0089_MW149_250115, 0089_MW142_250115, 0089_QC408_250115, 0089_QC318_250115	**15-Jan-2025**	**20-Jan-2025**	14-Jul-2025	✓	**20-Jan-2025**	14-Jul-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_QC506_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_QC122_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_QC124_250114, 0089_PW331_250114, 0089_PW356_250114, 0089_QC407_250114, 0089_QC317_250114	**14-Jan-2025**	**20-Jan-2025**	13-Jul-2025	✓	**20-Jan-2025**	13-Jul-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_QC125_250115, 0089_MW149_250115, 0089_MW142_250115, 0089_QC408_250115, 0089_QC318_250115	**15-Jan-2025**	**20-Jan-2025**	14-Jul-2025	✓	**20-Jan-2025**	14-Jul-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_QC506_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_QC122_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_QC124_250114, 0089_PW331_250114, 0089_PW356_250114, 0089_QC407_250114, 0089_QC317_250114	**14-Jan-2025**	**20-Jan-2025**	13-Jul-2025	✓	**20-Jan-2025**	13-Jul-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_QC125_250115, 0089_MW149_250115, 0089_MW142_250115, 0089_QC408_250115, 0089_QC318_250115	**15-Jan-2025**	**20-Jan-2025**	14-Jul-2025	✓	**20-Jan-2025**	14-Jul-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0089_PW330_250114, 0089_PW329_250114, 0089_SW156_250114, 0089_QC506_250114, 0089_SW154_250114, 0089_SW152_250114, 0089_SW150_250114, 0089_QC122_250114, 0089_PW358_250114, 0089_PW357_250114, 0089_QC124_250114, 0089_PW331_250114, 0089_PW356_250114, 0089_QC407_250114, 0089_QC317_250114	**14-Jan-2025**	**20-Jan-2025**	13-Jul-2025	✓	**20-Jan-2025**	13-Jul-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW139_250115, 0089_MW141_250115, 0089_MW147_250115, 0089_QC125_250115, 0089_MW149_250115, 0089_MW142_250115, 0089_QC408_250115, 0089_QC318_250115	**15-Jan-2025**	**20-Jan-2025**	14-Jul-2025	✓	**20-Jan-2025**	14-Jul-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	29	6.90	10.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	29	10.34	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Alkalinity by Auto Titrator	ED037-P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	29	10.34	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Chloride by Discrete Analyser	ED045G	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	29	0.00	5.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

QUALITY CONTROL REPORT

Work Order	: **EP2500597**	Page	: 1 of 13
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: 12641234 - PFAS OMP	Date Samples Received	: 16-Jan-2025
Order number	: 12641234	Date Analysis Commenced	: 20-Jan-2025
C-O-C number	: 77820	Issue Date	: 24-Jan-2025
Sampler	: [redacted] [redacted]		
Site	: 0089 HMAS Stirling		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 30		
No. of samples analysed	: 30		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6322211)									
EP2500597-004	0089_SD329_250114-0.10	EA055: Moisture Content	----	0.1	%	21.4	22.3	4.2	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6323240)									
EP2500597-004	0089_SD329_250114-0.10	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6323240)									
EP2500597-004	0089_SD329_250114-0.10	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335 76 2	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375 22 4	0 001	mg/kg	0 001	0 001	0 0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6323240)									

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6323240) - continued									
EP2500597-004	0089_SD329_250114-0.10	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6323240)									
EP2500597-004	0089_SD329_250114-0.10	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6323240)									
EP2500597-004	0089_SD329_250114-0.10	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 6321980)									
EP2500597-002	0089_PW329_250114	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	155	153	1.2	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	155	153	1.2	0% - 20%
EP2500597-024	0089_MW141_250115	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	657	661	0.6	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	657	661	0.6	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6325303)									

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 6325303) - continued									
EP2500344-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	12	12	0.0	0% - 50%
EP2500597-015	0089_PW357_250114	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	2970	3010	1.2	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 6325304)									
EP2500344-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	4	4	0.0	No Limit
EP2500597-015	0089_PW357_250114	ED045G: Chloride	16887-00-6	1	mg/L	21400	21700	1.4	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 6320420)									
EP2500597-001	0089_PW330_250114	ED093F Calcium	7440-70-2	1	mg/L	478	487	1.8	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	1360	1370	0.7	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	10400	10400	0.6	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	549	550	0.0	0% - 20%
EP2500597-022	0089_MW139_250115	ED093F: Calcium	7440-70-2	1	mg/L	127	128	0.0	0% - 20%
		ED093F Magnesium	7439-95-4	1	mg/L	66	66	0.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	453	454	0.2	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	26	26	0.0	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6322200)									
EP2500597-029	0089_QC408_250115	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706 91 4	0 02	µg/L	0 02	0 02	0 0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6322203)									
EP2500597-030	0089_QC318_250115	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6322200)									
EP2500597-029	0089_QC408_250115	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375 85 9	0 02	µg/L	0 02	0 02	0 0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6322200) - continued									
EP2500597-029	0089_QC408_250115	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6322203)									
EP2500597-030	0089_QC318_250115	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6322200)									
EP2500597-029	0089_QC408_250115	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X N Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X N Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6322203)									
EP2500597-030	0089_QC318_250115	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991 50 6	0 02	µg/L	0 02	0 02	0 0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6322203) - continued									
EP2500597-030	0089_QC318_250115	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6322200)									
EP2500597-029	0089_QC408_250115	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6322203)									
EP2500597-030	0089_QC318_250115	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6322200)									
EP2500597-029	0089_QC408_250115	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6322203)									
EP2500597-030	0089_QC318_250115	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6323240)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	102	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	92.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	95.8	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	97.4	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	96.7	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	96.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6323240)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	94.6	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	112	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6323240)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.4	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.4	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	108	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6323240)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6323240) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	115	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	102	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	107	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	101	54.8	124
EP231P: PFAS Sums (QCLot: 6323240)								
EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	---	---	---	---

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 6321980)								
ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	---	---	---	---
ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	---	---	---	---
ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	---	---	---	---
ED037-P: Total Alkalinity as CaCO3	---	1	mg/L	<1	20 mg/L	107	85.1	126
				<1	200 mg/L	104	90.5	111
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6325303)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	99.6	89.9	112
				<1	500 mg/L	93.9	89.9	112
ED045G: Chloride by Discrete Analyser (QCLot: 6325304)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	104	88.6	113
				<1	1000 mg/L	105	88.6	113
ED093F: Dissolved Major Cations (QCLot: 6320420)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	102	86.5	117
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	96.4	88.4	110
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	96.4	91.4	113
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	93.6	84.6	108
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6322198)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	---	---	---	---
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	102	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	111	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	106	68.0	131

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6322198) - continued								
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	113	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	102	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	118	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	96.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6322200)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	105	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	103	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	108	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	104	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	120	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	108	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6322203)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	105	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	103	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	108	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	104	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	120	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	108	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6322198)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	103	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	119	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	96.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	93.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	104	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	109	71.0	132

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6322200)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	116	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	101	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6322203)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	116	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	101	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6322198)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	120	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	118	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	97.8	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	108	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	118	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	125	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	81.6	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6322200)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	117	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	78.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	67.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6322203)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	117	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	78.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	67.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6322198)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	110	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	124	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	115	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	119	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6322200)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	106	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	112	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	115	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	116	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6322203)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	106	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	112	64.0	140

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6322203) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	115	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	116	64.2	133
EP231P: PFAS Sums (QCLot: 6322198)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6322200)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6322203)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6323240)							
EP2500597-005	0089_SD357_250114-0.10	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	107	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	110	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	100.0	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	101	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	112	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	112	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	108	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6323240)							
EP2500597-005	0089_SD357_250114-0.10	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	103	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	105	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	111	70.0	132

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6323240) - continued							
EP2500597-005	0089_SD357_250114-0.10	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	96.8	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	104	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	110	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	120	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	101	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	96.8	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	108	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6323240)							
EP2500597-005	0089_SD357_250114-0.10	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	118	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	107	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	93.4	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	103	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	109	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	124	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	97.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6323240)							
EP2500597-005	0089_SD357_250114-0.10	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	112	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	122	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	128	60.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 6325303)							
EP2500344-002	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	# Not Determined	70.4	130
ED045G: Chloride by Discrete Analyser (QCLot: 6325304)							
EP2500344-002	Anonymous	ED045G: Chloride	16887-00-6	200 mg/L	106	70.0	130

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street Perth WA 6000
PO Box 3106 Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* WA_0089_PFASOMP_25	**PO Number** (to be invoiced) 12641234
Laboratory Quote No. 240523GHDW	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com [redacted]	**Email Address (Results)** GHD.LabReports@ghd.com DCARM-WA_LABREPORTS@GHD.COM DERP.LABREPORTS@ESDAT.COM.AU [redacted]

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix (S-Soil/ SL-Sludge/ W-Water/ A-Air)	Container: Type (B-Bottle/ Jar/ V-Vial/ Bag/ G-Glass/ P-Plastic)	Container: Preservative (Unpreserved/ HCl/ H2SO4/ HNO3/ Other)	Container: No	Analyses: PFAS Full Suite standard (30 compounds)	Analyses: PFAS Full Suite (30 compounds) - soil	Analyses: HOLD	Remarks
0089_QC201_241212		12/12/2024		W	Plastic	UP	2	x			
0089_QC202_241213		13/12/2024		W	Plastic	UP	2	x			
0089_QC203_241213		13/12/2024		W	Plastic	UP	2	x			
0089_QC204_241213		13/12/2024		W	Plastic	UP	2	x			
0089_QC205_241216		16/12/2024		W	Plastic	UP	2	x			
0089_QC206_241216		16/12/2024		W	Plastic	UP	2	x			
0089_QC207_241216		16/12/2024		W	Plastic	UP	2	x			
0089_QC208_241217		17/12/2024		W	Plastic	UP	2	x			
0089_QC209_241217		17/12/2024		S	Jar	UP	1		x		
0089_QC210_241217		17/12/2024		W	Plastic	UP	2	x			
0089_QC211_241217		17/12/2024		W	Plastic	UP	2	x			
0089_QC212_241217		17/12/2024		S	Jar	UP	1		x		
0089_QC213_241217		17/12/2024		W	Plastic	UP	2	x			
0089_QC214_241217		17/12/2024		W	Plastic	UP	2	x			
0089_QC215_241217		17/12/2024		S	Jar	UP	1		x		
0089_QC216_241218		18/12/2024		W	Plastic	UP	2	x			
0089_QC217_241218		18/12/2024		W	Plastic	UP	2	x			
0089_QC218_241218		18/12/2024		S	Jar	UP	1		x		
0089_QC219_241218		18/12/2024		S	Jar	UP	1		x		
0089_QC220_241218		18/12/2024		W	Plastic	UP	2	x			
0089_QC221_241218		18/12/2024		W	Plastic	UP	2	x			

#1173728

Sampled by: [redacted]	Date/Time: 19/12/2024	Relinquished by:	Date/Time: 20/12/24
Received by:	Date/Time:	Relinquished by:	Date/Time: 14:10

LH
11.0°C

www.eurofins.com.au EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd ABN: 91 05 0159 898

Perth	Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
46-48 Banksia Road	6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Welshpool	Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
WA 6106	VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 8 6253 4444	+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 2377	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 2370 & 2554	Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins Environment Testing Australia Pty Ltd ABN: 50 005 085 521

Eurofins Environment Testing NZ Ltd NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name: GHD Pty Ltd WA
Contact name: [redacted]
Project name: WA_0089_PFASOMP_25
Project ID: Not provided
Turnaround time: 10 Day
Date/Time received Dec 20, 2024 2:10 PM
Eurofins reference 1173728

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 11 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

[redacted] **on phone : or by email:** [redacted]**eurofinsanz.com**

Results will be delivered electronically via email to [redacted] - [redacted]ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd WA email address.

Global Leader - Results you can trust

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898
Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521
Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254
Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403
Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217
Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466
Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780
Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954
Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327
Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308
Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290
Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC201_241212	Dec 12, 2024		Water	L24-De0055129		X
2	0089_QC202_241213	Dec 13, 2024		Water	L24-De0055130		X
3	0089_QC203_241213	Dec 13, 2024		Water	L24-De0055131		X
4	0089_QC204_241213	Dec 13, 2024		Water	L24-De0055132		X
5	0089_QC205_241216	Dec 16, 2024		Water	L24-De0055133		X
6	0089_QC206_241216	Dec 16, 2024		Water	L24-De0055134		X
7	0089_QC207_241216	Dec 16, 2024		Water	L24-De0055135		X
8	0089_QC208_241217	Dec 17, 2024		Water	L24-De0055136		X
9	0089_QC209_241217	Dec 17, 2024		Soil	L24-De0055137	X	X

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_241217	Dec 17, 2024		Water	L24-De0055138		X
11	0089_QC211_241217	Dec 17, 2024		Water	L24-De0055139		X
12	0089_QC212_241217	Dec 17, 2024		Soil	L24-De0055140	X	X
13	0089_QC213_241217	Dec 17, 2024		Water	L24-De0055141		X
14	0089_QC214_241217	Dec 17, 2024		Water	L24-De0055142		X
15	0089_QC215_241217	Dec 17, 2024		Soil	L24-De0055143	X	X
16	0089_QC216_241218	Dec 18, 2024		Water	L24-De0055144		X
17	0089_QC217_241218	Dec 18, 2024		Water	L24-De0055145		X
18	0089_QC218_241218	Dec 18, 2024		Soil	L24-De0055146	X	X
19	0089_QC219_241218	Dec 18, 2024		Soil	L24-De0055147	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
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Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
20	0089_QC220_241218	Dec 18, 2024		Water	L24-De0055148		X
21	0089_QC221_241218	Dec 18, 2024		Water	L24-De0055149		X
Test Counts						5	21

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: [redacted]

Report **1173728-S**
Project name WA_0089_PFASOMP_25
Received Date Dec 20, 2024

Client Sample ID			**0089_QC209_241217**	**0089_QC212_241217**	**0089_QC215_241217**	**0089_QC218_241218**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L24-De0055137**	**L24-De0055140**	**L24-De0055143**	**L24-De0055146**
Date Sampled			**Dec 17, 2024**	**Dec 17, 2024**	**Dec 17, 2024**	**Dec 18, 2024**
Test/Reference	LOR	Unit				
Sample Properties						
% Moisture	1	%	14	31	36	21
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	94	90	92	89
13C5-PFPeA (surr.)	1	%	88	91	89	96
13C5-PFHxA (surr.)	1	%	91	93	97	94
13C4-PFHpA (surr.)	1	%	93	89	87	94
13C8-PFOA (surr.)	1	%	96	96	91	97
13C5-PFNA (surr.)	1	%	88	80	78	82
13C6-PFDA (surr.)	1	%	84	92	84	87
13C2-PFUnDA (surr.)	1	%	86	78	83	91
13C2-PFDoDA (surr.)	1	%	93	81	83	94
13C2-PFTeDA (surr.)	1	%	141	INT	114	136
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	85	78	82	84

Client Sample ID			0089_QC209_241217	0089_QC212_241217	0089_QC215_241217	0089_QC218_241218
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L24-De0055137	L24-De0055140	L24-De0055143	L24-De0055146
Date Sampled			Dec 17, 2024	Dec 17, 2024	Dec 17, 2024	Dec 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	INT	INT	INT	INT
D5-N-EtFOSA (surr.)	1	%	INT	INT	INT	INT
D7-N-MeFOSE (surr.)	1	%	97	90	94	98
D9-N-EtFOSE (surr.)	1	%	74	90	98	104
D5-N-EtFOSAA (surr.)	1	%	76	60	71	87
D3-N-MeFOSAA (surr.)	1	%	88	84	79	75
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	81	86	79	82
13C2-6:2 FTSA (surr.)	1	%	73	61	51	65
13C2-8:2 FTSA (surr.)	1	%	106	58	87	98
13C2-10:2 FTSA (surr.)	1	%	98	83	99	95
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS)*[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)*[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	85	86	88	84
18O2-PFHxS (surr.)	1	%	85	80	69	81
13C8-PFOS (surr.)	1	%	83	74	70	77
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10

Client Sample ID			0089_QC219_241218
Sample Matrix			Soil
Eurofins Sample No.			L24-De0055147
Date Sampled			Dec 18, 2024
Test/Reference	LOR	Unit	
Sample Properties			
% Moisture	1	%	32

Client Sample ID			0089_QC219_241218
Sample Matrix			**Soil**
Eurofins Sample No.			**L24-De0055147**
Date Sampled			**Dec 18, 2024**
Test/Reference	LOR	Unit	
Perfluoroalkyl carboxylic acids (PFCAs)			
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	83
13C5-PFPeA (surr.)	1	%	94
13C5-PFHxA (surr.)	1	%	91
13C4-PFHpA (surr.)	1	%	85
13C8-PFOA (surr.)	1	%	88
13C5-PFNA (surr.)	1	%	78
13C6-PFDA (surr.)	1	%	86
13C2-PFUnDA (surr.)	1	%	88
13C2-PFDoDA (surr.)	1	%	87
13C2-PFTeDA (surr.)	1	%	135
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10
13C8-FOSA (surr.)	1	%	83
D3-N-MeFOSA (surr.)	1	%	INT
D5-N-EtFOSA (surr.)	1	%	INT
D7-N-MeFOSE (surr.)	1	%	95
D9-N-EtFOSE (surr.)	1	%	98
D5-N-EtFOSAA (surr.)	1	%	76
D3-N-MeFOSAA (surr.)	1	%	81
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	77
13C2-6:2 FTSA (surr.)	1	%	65

Client Sample ID			0089_QC219_241218
Sample Matrix			**Soil**
Eurofins Sample No.			**L24-De0055147**
Date Sampled			**Dec 18, 2024**
Test/Reference	LOR	Unit	
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)			
13C2-8:2 FTSA (surr.)	1	%	79
13C2-10:2 FTSA (surr.)	1	%	99
Perfluoroalkyl sulfonic acids (PFSAs)			
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS)*[N15]	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS)*[N15]	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	91
18O2-PFHxS (surr.)	1	%	81
13C8-PFOS (surr.)	1	%	75
PFASs Summations			
Sum (PFHxS + PFOS)*	5	ug/kg	< 5
Sum of PFASs (n=30)*	50	ug/kg	< 50
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
% Moisture	Welshpool	Dec 20, 2024	14 Days
- Method: ARL135 Moisture in Solids			
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
PFASs Summations	Welshpool	Dec 23, 2024	
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
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19/8 Lewalan Street
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VIC 3216
+61 3 8564 5000
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Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
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1/2 Frost Drive
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NSW 2304
+61 2 4968 8448
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Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC201_241212	Dec 12, 2024		Water	L24-De0055129		X
2	0089_QC202_241213	Dec 13, 2024		Water	L24-De0055130		X
3	0089_QC203_241213	Dec 13, 2024		Water	L24-De0055131		X
4	0089_QC204_241213	Dec 13, 2024		Water	L24-De0055132		X
5	0089_QC205_241216	Dec 16, 2024		Water	L24-De0055133		X
6	0089_QC206_241216	Dec 16, 2024		Water	L24-De0055134		X
7	0089_QC207_241216	Dec 16, 2024		Water	L24-De0055135		X
8	0089_QC208_241217	Dec 17, 2024		Water	L24-De0055136		X
9	0089_QC209_241217	Dec 17, 2024		Soil	L24-De0055137	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
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Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
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Site# 25403

Sydney
179 Magowar Road
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QLD 4172
T: +61 7 3902 4600
NATA# 1261
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Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_241217	Dec 17, 2024		Water	L24-De0055138		X
11	0089_QC211_241217	Dec 17, 2024		Water	L24-De0055139		X
12	0089_QC212_241217	Dec 17, 2024		Soil	L24-De0055140	X	X
13	0089_QC213_241217	Dec 17, 2024		Water	L24-De0055141		X
14	0089_QC214_241217	Dec 17, 2024		Water	L24-De0055142		X
15	0089_QC215_241217	Dec 17, 2024		Soil	L24-De0055143	X	X
16	0089_QC216_241218	Dec 18, 2024		Water	L24-De0055144		X
17	0089_QC217_241218	Dec 18, 2024		Water	L24-De0055145		X
18	0089_QC218_241218	Dec 18, 2024		Soil	L24-De0055146	X	X
19	0089_QC219_241218	Dec 18, 2024		Soil	L24-De0055147	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
20	0089_QC220_241218	Dec 18, 2024		Water	L24-De0055148		X
21	0089_QC221_241218	Dec 18, 2024		Water	L24-De0055149		X
Test Counts						5	21

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ppm: parts per million
µg/L: micrograms per litre
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit
Colour: Pt-Co Units (CU)

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
Method Blank							
PFASs Summations							
Sum of PFASs (n=30)*	ug/kg	< 50			50	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	59			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	67			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	74			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	69			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	88			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	70			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	67			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	67			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorododecanoic acid (PFDoDA)	%	69			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	67			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	75			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	77			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	78			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	68			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	68			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	73			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	67			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	78			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	68			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	81			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	108			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	68			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	69			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	62			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	64			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	72			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	87			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	90			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	91			50-150	Pass	
CRM - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	100			70-130	Pass	
Perfluoropentanoic acid (PFPeA)	%	101			70-130	Pass	
Perfluorohexanoic acid (PFHxA)	%	113			70-130	Pass	
Perfluoroheptanoic acid (PFHpA)	%	104			70-130	Pass	
Perfluorooctanoic acid (PFOA)	%	112			70-130	Pass	
Perfluorononanoic acid (PFNA)	%	106			70-130	Pass	
Perfluorodecanoic acid (PFDA)	%	104			70-130	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	103			70-130	Pass	
Perfluorododecanoic acid (PFDoDA)	%	113			70-130	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	103			70-130	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	108			70-130	Pass	
CRM - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	100			70-130	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	106			70-130	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	110			70-130	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	111			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	L24-De0055147	CP	%	69			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	L24-De0055147	CP	%	71			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	L24-De0055147	CP	%	71			50-150	Pass	
Perfluorooctanoic acid (PFOA)	L24-De0055147	CP	%	69			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanoic acid (PFNA)	L24-De0055147	CP	%	63			50-150	Pass	
Perfluorodecanoic acid (PFDA)	L24-De0055147	CP	%	70			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	L24-De0055147	CP	%	74			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	L24-De0055147	CP	%	74			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	L24-De0055147	CP	%	67			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L24-De0055147	CP	%	70			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	L24-De0055147	CP	%	94			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L24-De0055147	CP	%	70			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L24-De0055147	CP	%	77			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L24-De0055147	CP	%	71			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L24-De0055147	CP	%	71			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L24-De0055147	CP	%	69			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L24-De0055147	CP	%	73			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L24-De0055147	CP	%	74			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L24-De0055147	CP	%	71			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L24-De0055147	CP	%	68			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L24-De0055147	CP	%	82			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	L24-De0055147	CP	%	67			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	L24-De0055147	CP	%	70			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L24-De0055147	CP	%	68			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L24-De0055147	CP	%	65			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L24-De0055147	CP	%	74			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L24-De0055147	CP	%	72			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	L24-De0055147	CP	%	71			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	L24-De0055147	CP	%	70			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L24-De0055137	CP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L24-De0055137	CP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L24-De0055137	CP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorooctanesulfonic acid (PFOS)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L24-De0055137	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	L24-De0055140	CP	%	31	31	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-PFAS
[redacted] Senior Analyst-Sample Properties

[redacted]
General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
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Attention: [redacted]

Report **1173728-W**
Project name WA_0089_PFASOMP_25
Received Date Dec 20, 2024

Client Sample ID			**0089_QC201_241212**	**0089_QC202_241213**	**0089_QC203_241213**	**0089_QC204_241213**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L24-De0055129**	**L24-De0055130**	**L24-De0055131**	**L24-De0055132**
Date Sampled			**Dec 12, 2024**	**Dec 13, 2024**	**Dec 13, 2024**	**Dec 13, 2024**
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.03
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	0.01	0.17
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	112	106	90	99
13C5-PFPeA (surr.)	1	%	118	109	75	107
13C5-PFHxA (surr.)	1	%	113	105	71	99
13C4-PFHpA (surr.)	1	%	108	105	80	100
13C8-PFOA (surr.)	1	%	108	104	87	95
13C5-PFNA (surr.)	1	%	102	108	84	98
13C6-PFDA (surr.)	1	%	112	101	95	97
13C2-PFUnDA (surr.)	1	%	104	101	91	95
13C2-PFDoDA (surr.)	1	%	109	111	91	102
13C2-PFTeDA (surr.)	1	%	115	133	128	127
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	109	96	89	94
D3-N-MeFOSA (surr.)	1	%	INT	INT	INT	INT
D5-N-EtFOSA (surr.)	1	%	INT	INT	INT	INT

Client Sample ID			0089_QC201_241212	0089_QC202_241213	0089_QC203_241213	0089_QC204_241213
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055129	L24-De0055130	L24-De0055131	L24-De0055132
Date Sampled			Dec 12, 2024	Dec 13, 2024	Dec 13, 2024	Dec 13, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D7-N-MeFOSE (surr.)	1	%	103	104	85	94
D9-N-EtFOSE (surr.)	1	%	105	107	86	95
D5-N-EtFOSAA (surr.)	1	%	98	88	80	85
D3-N-MeFOSAA (surr.)	1	%	94	94	83	87
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	112	99	105	85
13C2-6:2 FTSA (surr.)	1	%	76	74	82	73
13C2-8:2 FTSA (surr.)	1	%	105	88	90	88
13C2-10:2 FTSA (surr.)	1	%	97	97	78	89
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.25
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.11
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	[N09]0.21
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	[N09]0.03	[N09]0.06	[N09]0.69
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	116	105	80	98
18O2-PFHxS (surr.)	1	%	105	98	82	87
13C8-PFOS (surr.)	1	%	101	95	82	89
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	0.03	0.06	0.69
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	1.46
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	0.03	0.06	0.69
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	0.07	1.14

Client Sample ID			0089_QC205_241216	0089_QC206_241216	0089_QC207_241216	0089_QC208_241217
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055133	L24-De0055134	L24-De0055135	L24-De0055136
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 17, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	0.03	0.02	0.03	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	0.09	0.08	0.09	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	[N09]0.01	[N09]0.02	[N09]0.03	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0089_QC205_241216	0089_QC206_241216	0089_QC207_241216	0089_QC208_241217
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055133	L24-De0055134	L24-De0055135	L24-De0055136
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 17, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	123	110	111	98
13C5-PFPeA (surr.)	1	%	128	109	108	115
13C5-PFHxA (surr.)	1	%	121	104	109	110
13C4-PFHpA (surr.)	1	%	125	108	109	103
13C8-PFOA (surr.)	1	%	120	100	104	105
13C5-PFNA (surr.)	1	%	114	95	102	103
13C6-PFDA (surr.)	1	%	113	100	107	101
13C2-PFUnDA (surr.)	1	%	113	98	105	101
13C2-PFDoDA (surr.)	1	%	116	103	109	100
13C2-PFTeDA (surr.)	1	%	123	130	136	103
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	111	98	107	100
D3-N-MeFOSA (surr.)	1	%	INT	INT	INT	INT
D5-N-EtFOSA (surr.)	1	%	INT	INT	INT	INT
D7-N-MeFOSE (surr.)	1	%	107	98	99	93
D9-N-EtFOSE (surr.)	1	%	104	101	100	95
D5-N-EtFOSAA (surr.)	1	%	101	88	95	80
D3-N-MeFOSAA (surr.)	1	%	101	93	92	90
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	113	97	104	89
13C2-6:2 FTSA (surr.)	1	%	80	70	71	64
13C2-8:2 FTSA (surr.)	1	%	102	89	93	102
13C2-10:2 FTSA (surr.)	1	%	94	85	111	82

Client Sample ID			0089_QC205_241216	0089_QC206_241216	0089_QC207_241216	0089_QC208_241217
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055133	L24-De0055134	L24-De0055135	L24-De0055136
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 17, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	0.03	0.06	0.09	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	0.01	0.01	0.02	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	[N09]0.05	[N09]0.04	[N09]0.07	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	[N09]0.47	[N09]0.73	[N09]0.41	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	[N09]0.02	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	[N09]0.01	[N09]0.02	[N09]1.2	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	121	102	106	109
18O2-PFHxS (surr.)	1	%	101	87	95	100
13C8-PFOS (surr.)	1	%	101	90	87	93
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.48	0.75	1.61	< 0.01
Sum of PFASs (n=30)*	0.1	ug/L	0.7	0.98	1.96	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.02	0.04	1.23	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.49	0.77	1.64	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.64	0.93	1.85	< 0.05

Client Sample ID			0089_QC210_241217	0089_QC211_241217	0089_QC213_241217	0089_QC214_241217
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055138	L24-De0055139	L24-De0055141	L24-De0055142
Date Sampled			Dec 17, 2024	Dec 17, 2024	Dec 17, 2024	Dec 17, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.15
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	0.01	< 0.01	< 0.01	0.17
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	109	110	96	90
13C5-PFPeA (surr.)	1	%	127	125	109	98
13C5-PFHxA (surr.)	1	%	118	115	106	93
13C4-PFHpA (surr.)	1	%	113	110	103	90
13C8-PFOA (surr.)	1	%	112	108	101	90
13C5-PFNA (surr.)	1	%	105	105	94	86
13C6-PFDA (surr.)	1	%	112	109	103	89
13C2-PFUnDA (surr.)	1	%	101	106	89	86
13C2-PFDoDA (surr.)	1	%	102	104	79	81
13C2-PFTeDA (surr.)	1	%	96	86	67	74

Client Sample ID			0089_QC210_241217	0089_QC211_241217	0089_QC213_241217	0089_QC214_241217
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055138	L24-De0055139	L24-De0055141	L24-De0055142
Date Sampled			Dec 17, 2024	Dec 17, 2024	Dec 17, 2024	Dec 17, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	102	102	90	85
D3-N-MeFOSA (surr.)	1	%	INT	INT	INT	INT
D5-N-EtFOSA (surr.)	1	%	INT	INT	INT	INT
D7-N-MeFOSE (surr.)	1	%	94	97	80	86
D9-N-EtFOSE (surr.)	1	%	95	95	73	86
D5-N-EtFOSAA (surr.)	1	%	93	95	82	77
D3-N-MeFOSAA (surr.)	1	%	93	92	83	72
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	99	92	87	80
13C2-6:2 FTSA (surr.)	1	%	73	69	67	60
13C2-8:2 FTSA (surr.)	1	%	86	94	101	89
13C2-10:2 FTSA (surr.)	1	%	94	103	71	78
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	[N09]0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	[N09]0.19
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]0.03	[N09]0.47
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	112	110	100	91
18O2-PFHxS (surr.)	1	%	103	101	93	83
13C8-PFOS (surr.)	1	%	96	94	84	75
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.03	0.66
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	0.99
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.03	0.47
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.03	0.66
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	0.98

Client Sample ID			0089_QC216_241218	0089_QC217_241218	0089_QC220_241218	0089_QC221_241218
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L24-De0055144	L24-De0055145	L24-De0055148	L24-De0055149
Date Sampled			Dec 18, 2024	Dec 18, 2024	Dec 18, 2024	Dec 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	96	94	91	93
13C5-PFPeA (surr.)	1	%	108	102	111	104
13C5-PFHxA (surr.)	1	%	102	98	108	97
13C4-PFHpA (surr.)	1	%	100	98	105	96
13C8-PFOA (surr.)	1	%	99	92	99	95
13C5-PFNA (surr.)	1	%	91	89	94	87
13C6-PFDA (surr.)	1	%	97	89	92	87
13C2-PFUnDA (surr.)	1	%	97	90	89	82
13C2-PFDoDA (surr.)	1	%	94	87	89	78
13C2-PFTeDA (surr.)	1	%	90	91	63	75
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	96	86	90	83
D3-N-MeFOSA (surr.)	1	%	INT	INT	INT	INT
D5-N-EtFOSA (surr.)	1	%	INT	INT	INT	INT
D7-N-MeFOSE (surr.)	1	%	85	82	84	77
D9-N-EtFOSE (surr.)	1	%	88	84	84	75
D5-N-EtFOSAA (surr.)	1	%	89	73	80	73
D3-N-MeFOSAA (surr.)	1	%	86	84	86	78
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	78	77	83	75
13C2-6:2 FTSA (surr.)	1	%	68	59	65	62

Client Sample ID			0089_QC216_241218	0089_QC217_241218	0089_QC220_241218	0089_QC221_241218
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L24-De0055144**	**L24-De0055145**	**L24-De0055148**	**L24-De0055149**
Date Sampled			**Dec 18, 2024**	**Dec 18, 2024**	**Dec 18, 2024**	**Dec 18, 2024**
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
13C2-8:2 FTSA (surr.)	1	%	77	86	81	73
13C2-10:2 FTSA (surr.)	1	%	83	81	85	71
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	99	92	100	93
18O2-PFHxS (surr.)	1	%	94	87	91	84
13C8-PFOS (surr.)	1	%	88	83	82	78
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Dec 23, 2024	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
PFASs Summations	Welshpool	Dec 23, 2024	
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC201_241212	Dec 12, 2024		Water	L24-De0055129		X
2	0089_QC202_241213	Dec 13, 2024		Water	L24-De0055130		X
3	0089_QC203_241213	Dec 13, 2024		Water	L24-De0055131		X
4	0089_QC204_241213	Dec 13, 2024		Water	L24-De0055132		X
5	0089_QC205_241216	Dec 16, 2024		Water	L24-De0055133		X
6	0089_QC206_241216	Dec 16, 2024		Water	L24-De0055134		X
7	0089_QC207_241216	Dec 16, 2024		Water	L24-De0055135		X
8	0089_QC208_241217	Dec 17, 2024		Water	L24-De0055136		X
9	0089_QC209_241217	Dec 17, 2024		Soil	L24-De0055137	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_241217	Dec 17, 2024		Water	L24-De0055138		X
11	0089_QC211_241217	Dec 17, 2024		Water	L24-De0055139		X
12	0089_QC212_241217	Dec 17, 2024		Soil	L24-De0055140	X	X
13	0089_QC213_241217	Dec 17, 2024		Water	L24-De0055141		X
14	0089_QC214_241217	Dec 17, 2024		Water	L24-De0055142		X
15	0089_QC215_241217	Dec 17, 2024		Soil	L24-De0055143	X	X
16	0089_QC216_241218	Dec 18, 2024		Water	L24-De0055144		X
17	0089_QC217_241218	Dec 18, 2024		Water	L24-De0055145		X
18	0089_QC218_241218	Dec 18, 2024		Soil	L24-De0055146	X	X
19	0089_QC219_241218	Dec 18, 2024		Soil	L24-De0055147	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
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179 Magowar Road
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Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
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T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

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1/2 Frost Drive
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NSW 2304
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Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1173728
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Dec 20, 2024 2:10 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
20	0089_QC220_241218	Dec 18, 2024		Water	L24-De0055148		X
21	0089_QC221_241218	Dec 18, 2024		Water	L24-De0055149		X
Test Counts						5	21

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.05			0.05	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.05			0.05	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	78			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	78			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	82			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	83			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	76			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	78			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	80			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	81			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	81			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	79			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	82			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	72			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	93			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	86			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	77			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	80			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	78			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	83			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	112			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	76			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	82			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	78			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	78			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	75			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	71			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	80			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	77			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	82			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	83			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	79			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	78			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	86			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	84			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	80			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	78			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	83			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	85			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	86			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	100			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	87			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	80			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	93			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	92			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	81			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	81			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	76			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	87			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	84			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	105			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	96			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	96			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	82			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	75			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	81			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	79			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	85			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	85			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	86			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	85			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	L24-De0055130	CP	%	84			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	L24-De0055130	CP	%	81			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	L24-De0055130	CP	%	88			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	L24-De0055130	CP	%	83			50-150	Pass	
Perfluorooctanoic acid (PFOA)	L24-De0055130	CP	%	85			50-150	Pass	
Perfluorononanoic acid (PFNA)	L24-De0055130	CP	%	80			50-150	Pass	
Perfluorodecanoic acid (PFDA)	L24-De0055130	CP	%	84			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	L24-De0055130	CP	%	88			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	L24-De0055130	CP	%	90			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	L24-De0055130	CP	%	88			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L24-De0055130	CP	%	89			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	L24-De0055130	CP	%	82			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L24-De0055130	CP	%	89			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L24-De0055130	CP	%	96			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L24-De0055130	CP	%	81			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L24-De0055130	CP	%	85			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L24-De0055130	CP	%	97			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L24-De0055130	CP	%	81			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L24-De0055130	CP	%	83			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L24-De0055130	CP	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L24-De0055130	CP	%	97			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L24-De0055130	CP	%	91			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	L24-De0055130	CP	%	85			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	L24-De0055130	CP	%	76			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L24-De0055130	CP	%	82			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L24-De0055130	CP	%	77			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L24-De0055130	CP	%	90			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L24-De0055130	CP	%	84			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctanesulfonic acid (PFOS)	L24-De0055130	CP	%	83			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	L24-De0055130	CP	%	89			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L24-De0055129	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L24-De0055129	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L24-De0055141	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L24-De0055141	CP	ug/L	0.03	0.03	4.0	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L24-De0055141	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L24-De0055144	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L24-De0055144	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-PFAS

[redacted]
[redacted]
General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 1178587.

GHD
Level 10, 999 Hay Street
Perth WA 6000
PO Box 3106
Perth WA 6832
Reception Ph: 08 6222 8222

Page _____ of _____

Project ID *(as per ESdat set up; no spaces)* WA_0089_PFASOMP_25	**PO Number** (to be invoiced) 12641234
Laboratory Quote No.	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com [redacted]	**Email Address (Results)** GHD.LabReports@ghd.com [redacted]

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix (S-Soil/ Sludge/ W-Water/ A-Air)	Container Type (B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic)	Container Preservative (Unpreserved/ HCl/ H2SO4/HNO3/Other)	Container No	Analyses: PFAS full suite (standard)	HOLD	Remarks
0089_QC222_250114		14/01/2025		W	B	U	2	X		
0089_QC223_250114		14/01/2025		W	B	U	2	X		
0089_QC224_250114		14/01/2025		W	B	U	2	X		
0089_QC225_250115		15/01/2025		W	B	U	2	X		

Sampled by: TC/AG	Date/Time: 14-15/01/2025	Relinquished by:	Date/Time:
Received by [redacted]	Date/Time: 17/01/24@14 [redacted]	Relinquished by:	Date/Time:

www.eurofins.com.au EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd ABN: 91 05 0159 898

Perth	Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
46-48 Banksia Road	6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Welshpool	Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
WA 6106	VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 8 6253 4444	+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 2377	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 2370 & 2554	Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins Environment Testing Australia Pty Ltd ABN: 50 005 085 521

Eurofins Environment Testing NZ Ltd NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name: GHD Pty Ltd WA
Contact name: [redacted]
Project name: WA_0089_PFASOMP_25
Project ID: 12641234
Turnaround time: 5 Day
Date/Time received Jan 17, 2025 2:43 PM
Eurofins reference 1178587

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 12.8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
N/A	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

[redacted] **on phone : or by email:** [redacted]**eurofinsanz.com**

Results will be delivered electronically via email to [redacted] - [redacted]ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd WA email address.

Global Leader - Results you can trust

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25
Project ID: 12641234

Order No.:
Report #: 1178587
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jan 17, 2025 2:43 PM
Due: Jan 24, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC222_250114	Jan 14, 2025		Water	L25-Ja0024476		X
2	0089_QC223_250114	Jan 14, 2025		Soil	L25-Ja0024477	X	X
3	0089_QC224_250114	Jan 14, 2025		Water	L25-Ja0024478		X
4	0089_QC225_250114	Jan 14, 2025		Water	L25-Ja0024479		X
Test Counts						1	4

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: [redacted]

Report **1178587-S**
Project name WA_0089_PFASOMP_25
Project ID 12641234
Received Date Jan 17, 2025

Client Sample ID			**0089_QC223_250114**
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-Ja0024477**
Date Sampled			**Jan 14, 2025**
Test/Reference	LOR	Unit	
Sample Properties			
% Moisture	1	%	27
Perfluoroalkyl carboxylic acids (PFCAs)			
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	56
13C5-PFPeA (surr.)	1	%	77
13C5-PFHxA (surr.)	1	%	69
13C4-PFHpA (surr.)	1	%	68
13C8-PFOA (surr.)	1	%	67
13C5-PFNA (surr.)	1	%	83
13C6-PFDA (surr.)	1	%	71
13C2-PFUnDA (surr.)	1	%	73
13C2-PFDoDA (surr.)	1	%	76
13C2-PFTeDA (surr.)	1	%	109
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10

Client Sample ID			0089_QC223_250114
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-Ja0024477**
Date Sampled			**Jan 14, 2025**
Test/Reference	LOR	Unit	
Perfluoroalkyl sulfonamido substances			
13C8-FOSA (surr.)	1	%	72
D3-N-MeFOSA (surr.)	1	%	107
D5-N-EtFOSA (surr.)	1	%	148
D7-N-MeFOSE (surr.)	1	%	92
D9-N-EtFOSE (surr.)	1	%	68
D5-N-EtFOSAA (surr.)	1	%	69
D3-N-MeFOSAA (surr.)	1	%	80
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	71
13C2-6:2 FTSA (surr.)	1	%	59
13C2-8:2 FTSA (surr.)	1	%	75
13C2-10:2 FTSA (surr.)	1	%	76
Perfluoroalkyl sulfonic acids (PFSAs)			
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS)*[N15]	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS)*[N15]	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	74
18O2-PFHxS (surr.)	1	%	71
13C8-PFOS (surr.)	1	%	73
PFASs Summations			
Sum (PFHxS + PFOS)*	5	ug/kg	< 5
Sum of PFASs (n=30)*	50	ug/kg	< 50
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
% Moisture	Welshpool	Jan 17, 2025	14 Days
- Method: ARL135 Moisture in Solids			
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
PFASs Summations	Welshpool	Jan 20, 2025	
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25
Project ID: 12641234

Order No.:
Report #: 1178587
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jan 17, 2025 2:43 PM
Due: Jan 24, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC222_250114	Jan 14, 2025		Water	L25-Ja0024476		X
2	0089_QC223_250114	Jan 14, 2025		Soil	L25-Ja0024477	X	X
3	0089_QC224_250114	Jan 14, 2025		Water	L25-Ja0024478		X
4	0089_QC225_250114	Jan 14, 2025		Water	L25-Ja0024479		X
Test Counts						1	4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	87			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	88			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	89			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	84			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	81			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	86			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	86			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	92			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	93			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	84			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	94			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	103			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	117			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	93			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	81			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	98			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	83			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	83			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	88			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	94			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	84			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	88			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	87			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	89			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	106			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	89			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	108			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	88			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	L25-Ja0026175	NCP	%	91			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Ja0026175	NCP	%	81			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Ja0026175	NCP	%	97			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Ja0026175	NCP	%	88			50-150	Pass	
Perfluorooctanoic acid (PFOA)	L25-Ja0026175	NCP	%	94			50-150	Pass	
Perfluorononanoic acid (PFNA)	L25-Ja0026175	NCP	%	95			50-150	Pass	
Perfluorodecanoic acid (PFDA)	L25-Ja0026175	NCP	%	94			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Ja0026175	NCP	%	90			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Ja0026175	NCP	%	96			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Ja0026175	NCP	%	95			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Ja0026175	NCP	%	104			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	L25-Ja0026175	NCP	%	93			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Ja0026175	NCP	%	109			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Ja0026175	NCP	%	95			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Ja0026175	NCP	%	83			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Ja0026175	NCP	%	81			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Ja0026175	NCP	%	99			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Ja0026175	NCP	%	101			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Ja0026175	NCP	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Ja0026175	NCP	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Ja0026175	NCP	%	109			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Ja0026175	NCP	%	89			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	L25-Ja0026175	NCP	%	87			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Ja0026175	NCP	%	97			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Ja0026175	NCP	%	90			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Ja0026175	NCP	%	91			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Ja0026175	NCP	%	93			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Ja0026175	NCP	%	97			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Ja0026175	NCP	%	105			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Ja0026175	NCP	%	92			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	L24-Au0004134	NCP	%	20	19	6.9	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Ja0026188	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Ja0026188	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Ja0026188	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Ja0026188	NCP	ug/kg	< 5	< 5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-Sample Properties
[redacted] Senior Analyst-PFAS

[redacted]
General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: [redacted]

Report **1178587-W**
Project name WA_0089_PFASOMP_25
Project ID 12641234
Received Date Jan 17, 2025

Client Sample ID			**0089_QC222_250114**	**0089_QC224_250114**	**0089_QC225_250114**
Sample Matrix			**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Ja0024476**	**L25-Ja0024478**	**L25-Ja0024479**
Date Sampled			**Jan 14, 2025**	**Jan 14, 2025**	**Jan 15, 2025**
Test/Reference	LOR	Unit			
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	0.09
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	115	92	115
13C5-PFPeA (surr.)	1	%	105	90	110
13C5-PFHxA (surr.)	1	%	95	81	106
13C4-PFHpA (surr.)	1	%	92	76	103
13C8-PFOA (surr.)	1	%	87	74	98
13C5-PFNA (surr.)	1	%	88	71	97
13C6-PFDA (surr.)	1	%	88	69	94
13C2-PFUnDA (surr.)	1	%	88	70	103
13C2-PFDoDA (surr.)	1	%	95	59	76
13C2-PFTeDA (surr.)	1	%	61	38	44
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	72	54	80
D3-N-MeFOSA (surr.)	1	%	146	115	137

Client Sample ID			0089_QC222_250114	0089_QC224_250114	0089_QC225_250114
Sample Matrix			**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Ja0024476**	**L25-Ja0024478**	**L25-Ja0024479**
Date Sampled			**Jan 14, 2025**	**Jan 14, 2025**	**Jan 15, 2025**
Test/Reference	LOR	Unit			
Perfluoroalkyl sulfonamido substances					
D5-N-EtFOSA (surr.)	1	%	190	134	140
D7-N-MeFOSE (surr.)	1	%	90	64	100
D9-N-EtFOSE (surr.)	1	%	94	67	98
D5-N-EtFOSAA (surr.)	1	%	74	61	101
D3-N-MeFOSAA (surr.)	1	%	94	69	101
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	92	79	115
13C2-6:2 FTSA (surr.)	1	%	107	66	129
13C2-8:2 FTSA (surr.)	1	%	108	94	121
13C2-10:2 FTSA (surr.)	1	%	91	79	113
Perfluoroalkyl sulfonic acids (PFSAs)					
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]0.09
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	98	86	113
18O2-PFHxS (surr.)	1	%	96	79	107
13C8-PFOS (surr.)	1	%	93	79	102
PFASs Summations					
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.09
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	0.18
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.09
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	0.18

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Jan 20, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
PFASs Summations	Welshpool	Jan 20, 2025	
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
T: +61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise,
Mount Wellington,
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road,
Gate Pa,
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25
Project ID: 12641234

Order No.:
Report #: 1178587
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jan 17, 2025 2:43 PM
Due: Jan 24, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC222_250114	Jan 14, 2025		Water	L25-Ja0024476		X
2	0089_QC223_250114	Jan 14, 2025		Soil	L25-Ja0024477	X	X
3	0089_QC224_250114	Jan 14, 2025		Water	L25-Ja0024478		X
4	0089_QC225_250114	Jan 14, 2025		Water	L25-Ja0024479		X
Test Counts						1	4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.05			0.05	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	86			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	84			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	86			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	118			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	90			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	92			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	84			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	86			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	82			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	104			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	86			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	84			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	118			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	90			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	90			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	86			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	88			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	84			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	84			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	92			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	80			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	86			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	92			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	82			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	84			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	84			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	88			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	86			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	L25-Ja0024476	CP	%	85			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Ja0024476	CP	%	88			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Ja0024476	CP	%	108			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Ja0024476	CP	%	100			50-150	Pass	
Perfluorooctanoic acid (PFOA)	L25-Ja0024476	CP	%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)	L25-Ja0024476	CP	%	98			50-150	Pass	
Perfluorodecanoic acid (PFDA)	L25-Ja0024476	CP	%	90			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Ja0024476	CP	%	87			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Ja0024476	CP	%	92			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Ja0024476	CP	%	102			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Ja0024476	CP	%	86			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	L25-Ja0024476	CP	%	85			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Ja0024476	CP	%	104			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Ja0024476	CP	%	101			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Ja0024476	CP	%	92			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Ja0024476	CP	%	97			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Ja0024476	CP	%	82			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Ja0024476	CP	%	85			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Ja0024476	CP	%	91			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Ja0024476	CP	%	83			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Ja0024476	CP	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Ja0024476	CP	%	94			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	L25-Ja0024476	CP	%	102			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Ja0024476	CP	%	84			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Ja0024476	CP	%	89			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Ja0024476	CP	%	81			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Ja0024476	CP	%	112			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Ja0024476	CP	%	97			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Ja0024476	CP	%	99			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Ja0024476	CP	%	92			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Ja0024479	CP	ug/L	0.09	0.09	1.0	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Ja0024479	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Ja0024479	CP	ug/L	0.09	0.09	3.0	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Ja0024479	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager

[redacted] Senior Analyst-PFAS

[redacted]

General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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Appendix F

Field notes

Groundwater Gauging – Field Sheet

Client	Defence
Project	12641234
Project No.	Defence LC - Stirling OMP
Site	HMAS Stirling
CSR or Area	Accomodation area
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake (mbTOC)	Notes
✓MW289	10/12/24 12:50pm	/	4.181	~~5.965~~ 6.122	5.1	gatic, unblocked w steel bailer
✓MW288	10/12/24 2pm	/	3.91	5.88	4.9	monument, unlocked w steel bailer

Notes:	

Groundwater Gauging – Field Sheet

Client	Defence
Project	PFAS LC - Stirling OMP
Project No.	12641234
Site	HMAS Stirling
CSR or Area	AVCAT Storage and Fuel Farm
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake (mbTOC)	Notes
✓MW233	6/12/24 12.40pm	/	3.310	4.265	4.265	Partially blocked (roots) Top weight used
✓MW249	6/12/24 1pm	/	4.975	6.250	6.250	Partially blocked (roots) Top weight used
✓MW242	6/12/24 1.15pm	/	3.205	—	—	Blocked
	9/12/24 3pm	/	3.205	4.263	4.25	Blocked @ 3.782mbTOC steel bailer used to unblock Top weight used
✓MW496	6/12/24 9.48am	/	4.849	8.185	5.9	
✓MW516	6/12/24 10.20am	/	6.122	7.905	7.1	
✓MW245	11/12/24 12.45pm	/	4.213	6.33	5.2	Drainage sump area "Bore monitor 7" sign
✓MW239	11/12/24 1.15pm	/	3.663	5.115	5.1	Top weight used
✓MW238	11/12/24 1.20pm	/	4.45	7.03	5.5	
MW243	11/12/24 12.40pm	/	4.54	7.0	5.5	
MW240	11/12/24 1pm	/	4.11	6.8	5.1	
MW236	11/12/24 2pm	/	4.161	5.07	5	Top weighted Partially blocked

Notes:	

Groundwater Gauging – Field Sheet

Client	Defence
Project	PFAS LC - Stirling OMP
Project No.	12641234
Site	HMAS Stirling
CSR or Area	Dredge Spoil / Careening Bay
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake (mbTOC)	Notes
✓ MW268	6/12/24 11.25 am	/	3.935	5.765	5	Top weight used
✓ MW269	6/12/24 11.20 am	/	4.0400	—	—	Blocked (roots) @ 4-1.5
	10/12/24 8.40 am	/	4.115	5.876	4.8	Attempted unblock with steel baller

Notes:	

Groundwater Gauging – Field Sheet

Client	Defence
Project	PFAS LC - Stirling OMP
Project No.	12641234
Site	HMAS Stirling
CSR or Area	Fire training ground
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake	Notes
✓MW500	11/12/24 8.10am	/	3.424	5.880	4.4	Partially blocked @ 5.835 steel bailer used, sand/roots
✓MW112	11/12/24 8.50am	/	3.551	5.864	4.5	Gatic in grass
✓MW109	11/12/24 9.05am	/	4.202	5.842	5.8	Top weight used
✓MW128	11/12/24 9.30am	/	4.350	5.550	5.5	Top weight used
MW127	11/12/24 10.05am	/	1.670	4.200	2.7	Further S than shown on map
MW126	11/12/24 10.20am	/	1.935	4.230	3.0	
MW125	11/12/24 10.30am	/	1.875	4.320	2.9	
MW124	11/12/24 10.45am	/	1.900	4.190	2.9	Further S than shown on map
✓MW121	11/12/24 8am	/	3.42	4.09	4.09	Top weight used (blocked to 3.67, steel bailer used)
✓MW123	11/12/24 8.30am	/	6.365	7.78	7.7	Existing hydrasleeve
✓MW120	11/12/24 8.45am	/	4.14	5.76	5.7	Top weight used

Notes:	

Groundwater Gauging – Field Sheet

Client	Defence
Project	PFAS LC - Stirling OMP
Project No.	12641234
Site	HMAS Stirling
CSR or Area	Helicopter support facility
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake (mbTOC)	Notes
✓MW225	10/12/24 10.45am	/	3.965	5.42	5.4	Top weight used
✓MW214	10/12/24 11.20am	/	7.850	9.09	9	Access via gate at Helicopter facility entrance. Top weight used
MW227	11/12/24 2.50pm	/	2.905	4.11	4.1	Top weight used Incorrect location on map
MW228	11/12/24 3.20pm	/	2.185	4.06	3.1	
✓MW282	12/12/24 8.10am	/	5.550	11.7	6.5	
✓MW224	12/12/24 8.30am	/	13.03	14.42	14.4	Top weight used.
✓MW220	12/12/24 8.40am	/	6.76	8.535	8.5	Top weight used.
✓MW217	12/12/24 9am	/	8.465	8.996	9	" "
✓MW216	12/12/24 9.20am	/	7.950	9.43	9.4	Existing hydrasleeve in well.
✓MW215	12/12/24 9.30am	/	3.525	4.84	4.8	Top weight used
✓MW226	12/12/24 10am	/	1.695	4.02	2.7	

Notes:	

Groundwater Gauging – Field Sheet

Client	Defence
Project	PFAS LC – Stirling OMP
Project No.	12641234
Site	HMAS Stirling
CSR or Area	WWTP
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake (mbTOC)	Notes
✓ MW199	6/12/24 1.30pm	/	11.560	17.435	16.5	
✓ MW203	6/12/24 1.50pm	/	10.571	12.820	11.5	
✓ MW173	9/12/24 9.15 am	/	9.685	11.320	10.3	Inside of WWTP fence (not outside)
X MW195S	9/12/24 10.40	/	-	-	-	Blocked @ 4.170mbTOC could not deploy steel bailer due to PVC blockage
✓ MW195D	9/12/24 10.46	/	12.37 ↔ 4.08			old blue wells
✓ MW193	9/12/24 11.06am	/	11.389	12.5	12.5	Top weight used
✓ MW166	9/12/24 11.45am	/	11.40	12.37	12.3 (bottom)	Blocked to 12.2 mbTOC, Steel bailer used Top weight used
✓ MW158	9/12/24 1.05pm	/	14.279	15.58	15.5 (bottom)	Top weight used
✓ MW196	10/12/24 2.50pm	/	12.536	13.60	13.60 (bottom)	Top weight used
MW468	17/12/24 9.10 am	/	2.370	2.960	3	Top weight used
MW200	17/12/24 10.15 am	/	2.045	2.67	2.7	Top weight used
MW171	9/12/24 11.40 am	/	28.87	31.80	29.5	Old blue well, not yellow 'MW171D'

Notes:						
MW161	9/12/24 1pm	/	16.84	18.17	17.2	labelled MB42

Groundwater Gauging – Field Sheet

Client	Defence
Project	PFAS LC - Stirling OMP
Project No.	12641234
Site	HMAS Stirling
CSR or Area	Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake (mbTOC)	Notes
✓ MW010	6/12/24 10.45am	/	4.025	8.460	7.5	
✓ MW553	6/12/24 11am	/	3.583	5.710	5.710	Existing hydrasleeve in well.
✓ MW256	10/12/24 9.20am	/	3.409	5.680	4.4	
✓ MW255	10/12/24 9.45am	/	4.183	6.325	5.6	Existing hydrasleeve in well.
✓ MW259	10/12/24 10 am	/	3.432	5.422	4.4	
✓ MW258	10/12/24 9.30am	/	3.670	5.380	4.3	gatic w plastic some roots on bottom but didn't have bailer to clear
✓ MW257	10/12/24 10 am	/	3.42	5.3	4.8	Existing hydrasleeve in well.

Notes:	

Groundwater Gauging – Field Sheet

Client	Department of Defence
Project	Defence OMP
Project No.	12641234
Site	Demolition Ground
CSR or Area	
Field Staff	[redacted]

Well ID	Date / Time	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	Depth of Well (mbTOC)	Pump / Hydrasleeve intake	Notes
MW139	14/1/25 9:14	–	2.001	4.790	4.0	gentic
MW147	9:36	–	3.099	5.550	5.0	monument blue nested, hard to open.
MW141	9:50	–	2.733	5.146	4.6	monument blue nested metal well head broken
MW149	10:17	–	2.650	4.389	4.6	PVC only on bore.
MW142	10:22	–	2.349	3.745	3.2	Silver monument.

Notes:	

Purging and Sampling Record

Well ID: 0089_MW010

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.025 m bTOC	**Time SWL Measured:**	10:45 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.460 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	7.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:30		25.5	7.26	1310.0	2.46	-80.6	850.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC103_241213

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC203_241213

Purging and Sampling Record

Well ID: 0089_MW109

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.202 m bTOC	**Time SWL Measured:**	09:05 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.842 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:35		21.7	7.13	790.0	1.12	-44.5	514.0		clear, colourless, no sheen, organic odour, moderate sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW112

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.551 m bTOC	**Time SWL Measured:**	08:50 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.864 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:25		23.1	7.36	580.0	0.86	-29.3	377.4		pale yellow, clear, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 0089_MW112_LABDUP

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW120

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.140 m bTOC	**Time SWL Measured:**	08:45 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.760 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.56 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:10		21.9	7.43	660.0	1.49	-30.6	429.3		pale grey, cloudy, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 0089_MW120_LABDUP, 0089_MW120_MS

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW121

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	3.420 m bTOC	**Time SWL Measured:**	08:00 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	4.090 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.7 to 5.7 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:30		23.5	7.80	530.0	2.89	-43.8			no water available in hydrasleeve, used peri pump
14:35		22.2	7.57	513.0	3.90	-34.1			light grey, cloudy, no sheen, no odour, significant sediment load.
14:38		21.9	7.53	510.0	4.30	-31.9			light grey, cloudy, no sheen, no odour, significant sediment load.
14:40		21.9	7.54	510.0	4.61	-32.3			light grey, cloudy, no sheen, no odour, significant sediment load.
14:42		21.9	7.55	508.0	5.16	-32.0			light grey, cloudy, no sheen, no odour, significant sediment load.

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: Too much sediment for peri pump, used single use bailer and purged until stable

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW123

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	6.365 m bTOC	**Time SWL Measured:**	08:30 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.780 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	7.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.4 to 8 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:50		24.7	7.30	1388.0	1.14	-30.0	898.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 0089_QC106_241216, 0089_QC206_241216

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC106_241216
#Primary sample containers		Duplicate analysis:		Duplicate 2 ID:	0089_QC206_241216

Purging and Sampling Record

Well ID: 0089_MW124

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.900 m bTOC	**Time SWL Measured:**	10:45 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.190 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 4 m bgl		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:42		20.9	7.22	39769.0	2.99	-93.5	25859.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW125

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.875 m bTOC	**Time SWL Measured:**	10:30 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.320 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:10		21.6	7.19	39706.0	2.40	-150.2	25798.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW126

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.935 m bTOC	**Time SWL Measured:**	10:20 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.230 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:52		21.9	7.06	33089.0	4.30	-142.4	21513.0		clear, colourless, no sheen, hydrocarbon odour, no sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW127

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	m	**SWL:**	1.670 m bTOC	**Time SWL Measured:**	10:05 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.200 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:10		22.7	7.09	35222.0	1.88	-88.1	22909.0		cloudy, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: Hydrasleeve not redeployed

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW128

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.350 m bTOC	**Time SWL Measured:**	09:30 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.550 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:00		21.6	7.35	484.0	1.48	-43.8	316.7		clear, colourless, no sheen, organic odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW139

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.001 m bTOC	**Time SWL Measured:**	09:14 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.790 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl		
Date:	15/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	- m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:35	1.0	22.7	7.49	4580.0	0.80	-72.9	2976.0		Clear, colourless, no odour, no sheen, some ant eggs in the sleeve

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW141

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.099 m bTOC	**Time SWL Measured:**	09:36 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.550 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl		
Date:	15/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	- m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:57	1.0	22.7	7.00	26605.0	0.56	-89.8	17297.0		Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW142

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.349 m bTOC	**Time SWL Measured:**	10:22 AM	
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.745 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.25 to 4 m bgl			
Date:	15/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	- m	
Round:	Post Winter 2024	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:12	1.0	24.7	7.32	23832.0	1.83	-72.6	15489.0		Clear, colourless, no odour, no sheen

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW147

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.733 m bTOC	**Time SWL Measured:**	09:50 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.146 m bTOC	**Logic Check:**	No
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl		
Date:	15/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:27	1.0	24.6	7.10	15148.0	1.40	-82.6	9850.0		Clear, colourless, no odour, no sheen, roots present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW149

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.650 m bTOC	**Time SWL Measured:**	10:17 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.389 m bTOC	**Logic Check:**	No
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1 to 4 m bgl		
Date:	15/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:47	1.0	25.7	7.25	16982.0	0.86	-73.2	1697.1		Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW158

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	14.279 m bTOC	**Time SWL Measured:**	01:05 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	15.580 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	15.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:40		23.6	7.29	14045.0	2.08	-25.9	9135.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW161

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	16.840 m bTOC	**Time SWL Measured:**	01:00 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	18.170 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	17.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bgl		
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.61 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:20		23.7	7.32	3095.0	2.95	-23.4	2013.0		pale brown, cloudy, no sheen, no odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW166

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	11.400 m bTOC	**Time SWL Measured:**	11:45 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.370 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	12.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13 m bgl		
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:05		22.4	7.18	4506.0	3.74	-26.0	2929.0		pale brown, cloudy, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW171

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	28.870 m bTOC	**Time SWL Measured:**	11:40 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	31.800 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	29.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	28.5 to 31.5 m bgl		
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.38 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45		23.8	7.19	6504.0	1.39	-27.8	4236.0		Clear, colourless, no sheen, no odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW173

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	9.685 m bTOC	**Time SWL Measured:**	09:05 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	11.320 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	10.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.44 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:45		27.0	7.03	4403.0	0.77	-36.9	2869.0		Clear, colourless, no sheen, no odour, no sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW193

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	11.389 m bTOC	**Time SWL Measured:**	11:06 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.500 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	12.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10.5 to 13.5 m bgl		
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.55 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:10		24.5	6.97	1905.0	1.91	-30.3	1239.0		Colourless, cloudy, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW195D

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.080 m bTOC	**Time SWL Measured:**	10:46 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.370 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	11 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13 m bgl		
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.36 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:54		27.3	7.20	24365.0	0.57	-26.0	15686.0		Colourless, cloudy, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 0089_QC101_241212, 0089_QC201_241212

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC101_241212

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC201_241212

Purging and Sampling Record

Well ID: 0089_MW196

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	12.536 m bTOC	**Time SWL Measured:**	02:50 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	13.600 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	13.6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:20		26.2	7.43	599.0	4.01	-14.9	389.6		pale brown, clear, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW199

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	11.560 m bTOC	**Time SWL Measured:**	01:30 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	17.435 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	16.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	12/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.02 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:05		25.6	7.29	20143.0	0.24	-263.4	13102.0		pale yellow, clear, no sheen, hydrocarbon odour, no sediment

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW200

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.045 m bTOC	**Time SWL Measured:**	10:15 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.670 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.7 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:50		22.7	7.52	7556.0	5.19	-100.6	4907.0		clear, colourless, no sheen, hydrocarbon odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? | Duplicate collected? | Duplicate 1 ID:

#Primary sample containers | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW203

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	10.571 m bTOC	**Time SWL Measured:**	01:50 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.820 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	11.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:00		23.4	7.18	893.0	2.17	-57.0	580.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW214

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	7.850 m bTOC	**Time SWL Measured:**	11:20 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.090 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	5.5 to 9 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.62 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:40		24.4	7.05	2312.0		-55.6	1505.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW215

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	Purge Method:	No purge	SWL:	3.525 m bTOC	Time SWL Measured:	09:30 AM	
Project:	Defence PFASIM LC WA	Sample Method:	Hydrasleeve	Well Depth:	4.840 m bTOC	Logic Check:	Yes	
Proj. No.:	12641234	Sample Depth:	4.8 m bTOC	NAPL Check:	Absent	Well Cap Secure?	Yes	
Site:	HMAS Stirling	WQuality Meter Type:	YSI	NAPL Depth:	- m bTOC	Gatic or Stick Up?	Stick Up	
Sampler:	[redacted]	Flow Cell Used?	No	Screened Interval From:	1.5 to 4.5 m bgl			
Date:	16/12/2024	WLevel Meter Type:	Interface Probe	Well Diameter:	50 mm	Stick Up:	m	
Round:	Post Winter 2024	Field Filtered?	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:55		21.0	7.21	1360.0	0.71	-15.6	884.0		clear, colourless, no sheen, organic odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers
Duplicate collected? Yes
Duplicate analysis:
Duplicate 1 ID: 0089_QC105_241213
Duplicate 2 ID: 0089_QC105_241213

Purging and Sampling Record

Well ID: 0089_MW216

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	7.950 m bTOC	**Time SWL Measured:**	09:20 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.430 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	9.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	6 to 9 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:40		19.8	7.36	2562.0	2.43	-14.4	1666.0		cloudy, colourless, no sheen, no odour, moderate sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW217

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	8.465 m bTOC	**Time SWL Measured:**	09:00 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.996 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	8.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	6.5 to 9.5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:15		21.5	7.42	925.0	5.69	-13.4	602.0		cloudy, colourless, no sheen, no odour, no sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW220

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	6.760 m bTOC	**Time SWL Measured:**	08:40 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.535 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	8.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:55		20.0	7.21	735.0	3.50	-9.0	477.8		cloudy, orange, no sheen, organic odour, moderate sediment

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW224

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	13.030 m bTOC	**Time SWL Measured:**	08:30 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	14.420 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	14.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	11.25 to 14.25 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.64 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:35		19.9	7.64	1182.0	3.06	-9.3	764.0		cloudy, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW225

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.965 m bTOC	**Time SWL Measured:**	10:45 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.420 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:45		20.3	7.14	2915.0	1.40	-54.4	1895.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW226

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.695 m bTOC	**Time SWL Measured:**	10:00 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.020 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 3.8 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:30		22.6	7.08	41372.0	1.62	-35.3	26894.0		pale yellow, clear, no sheen, no odour, no sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW227

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.905 m bTOC	**Time SWL Measured:**	02:50 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.110 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	-- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1.25 to 4.2 m bgl		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:40		20.8	7.48	2919.0	2.74	-55.6	1900.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW228

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.185 m bTOC	**Time SWL Measured:**	03:20 PM	
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.060 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 3.75 m bgl			
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Winter 2024	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:20		21.3	7.25	8918.0	1.72	-50.6	5800.0		pale yellow, clear, no sheen, no odour, no sediment

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW233

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.310 m bTOC	**Time SWL Measured:**	12:40 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.265 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.265 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.57 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:50		19.7	7.71	451.3	3.30	-84.8	293.4		pale yellow, clear, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW236

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.161 m bTOC	**Time SWL Measured:**	02:00 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.070 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.61 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:20		23.4	7.42	705.0	2.78	-37.7	458.7		light brown, clear, no odour, no sheen, moderate sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW238

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.450 m bTOC	**Time SWL Measured:**	01:20 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.030 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.23 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:50		23.2	7.26	737.0	1.65	-35.6	479.6		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW239

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.663 m bTOC	**Time SWL Measured:**	01:15 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.115 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:40		24.4	7.53	615.0	1.80	-32.8	400.0		orange, clear, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC102_241213

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC202_241213

Purging and Sampling Record

Well ID: 0089_MW240

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.110 m bTOC	**Time SWL Measured:**	01:00 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.800 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.22 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:05		23.5	7.35	706.0	2.29	-37.9	458.6		clear, colourless, no sheen, no odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW242

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.205 m bTOC	**Time SWL Measured:**	03:00 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.263 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.25 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:40		24.3	7.62	461.4	1.76	-41.3	300.2		brown , cloudy, no sheen, no odour, moderate sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW243

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.540 m bTOC	**Time SWL Measured:**	12:40 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.000 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:05		23.0	7.36	913.0	1.67	-24.4	594.0		clear, colourless, no sheen, no odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW245

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.213 m bTOC	**Time SWL Measured:**	12:45 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.330 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unknown to	m bgl	
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:18		21.2	7.31	433.7	2.27	-31.1	282.6		pale yellow, clear, no sheen, hydrocarbon odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW249

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.975 m bTOC	**Time SWL Measured:**	01:00 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.250 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	6.25 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.5 to 6.5 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:52		24.2	7.14	1277.0	1.74	-50.8	830.0		grey, cloudy, no sheen, no odour, moderate sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW255

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.183 m bTOC	**Time SWL Measured:**	09:45 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.325 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.56 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:50		22.3	7.31	859.0	2.35	-65.8	559.0		cloudy, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW256

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.409 m bTOC	**Time SWL Measured:**	09:20 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.680 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:30		22.1	6.73	1468.0	2.14	-76.8	955.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW257

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.420 m bTOC	**Time SWL Measured:**	10:00 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.300 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.7 to 5.6 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:15		23.1	7.71	490.0	4.60	-59.7	321.3		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW258

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.670 m bTOC	**Time SWL Measured:**	09:30 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.380 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:00		23.4	7.13	1230.0	2.04	-62.6	800.0		cloudy, colourless, no sheen, no odour, minor sediment

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW259

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.432 m bTOC	**Time SWL Measured:**	10:00 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.422 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:30		21.3	7.26	526.0	1.75	-60.2	342.2		clear, colourless, no sheen, nomodour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW268

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	Purge Method:	No purge	SWL:	3.935 m bTOC	Time SWL Measured:	11:25 AM	
Project:	Defence PFASIM LC WA	Sample Method:	Hydrasleeve	Well Depth:	5.765 m bTOC	Logic Check:	Yes	
Proj. No.:	12641234	Sample Depth:	5 m bTOC	NAPL Check:	Absent	Well Cap Secure?	Yes	
Site:	HMAS Stirling	WQuality Meter Type:	YSI	NAPL Depth:	- m bTOC	Gatic or Stick Up?	Stick Up	
Sampler:	[redacted]	Flow Cell Used?	No	Screened Interval From:	2.5 to 5.5 m bgl			
Date:	13/12/2024	WLevel Meter Type:	Interface Probe	Well Diameter:	50 mm	Stick Up:	0.4 m	
Round:	Post Winter 2024	Field Filtered?	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:55		24.9	7.21	5386.0	2.09	-59.4	3502.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers
Duplicate collected? Yes
Duplicate analysis:
Duplicate 1 ID: 0089_QC104_241213
Duplicate 2 ID: 0089_QC204_241213

Purging and Sampling Record

Well ID: 0089_MW269

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.115 m bTOC	**Time SWL Measured:**	08:40 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.876 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:10		23.4	7.34	1906.0	1.77	-72.0	1239.0		colourless, cloudy, no sheen, no odour, no sediment

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW282

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	5.550 m bTOC	**Time SWL Measured:**	08:10 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	11.700 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	6.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 7.5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:20		20.7	7.50	20287.0	1.64	-2.1	13187.0		clear, colourless, no sheen, no odour, no sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW288

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.910 m bTOC	**Time SWL Measured:**	02:00 PM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.880 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.25 to 5.25 m bgl		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:40		20.9	7.27	776.0	1.52	-30.3	505.0		cloudy, colourless, no sheen, no odour, nonsediment

Field QA Checks:		*Stabilisation Readings*	
Air bubbles in vials or violent reactions?	No		Current parameter is stablised based on the previous 3 readings
Decontamination as per GHD procedure?	Yes		Current parameter is not stabilised based on the previous 3 readings
Was sampling equipment pre-cleaned?	Yes		Potential data entry error, confirm the value entered is correct
COC updated?	Yes		

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW289

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.181 m bTOC	**Time SWL Measured:**	12:50 PM	
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.122 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.25 to 6.25 m bgl			
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Winter 2024	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:15		22.9	7.26	759.0	1.10	-53.1	493.0		pale grey, cloudy, no sheen, no odour, moderate sediment

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC107_241216
#Primary sample containers		Duplicate analysis:		Duplicate 2 ID:	0089_QC207_241216

Purging and Sampling Record

Well ID: 0089_MW468

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.370 m bTOC	**Time SWL Measured:**	09:10 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.960 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1 to 1.2 m bgl		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	1.2 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:30		21.6	7.27	21031.0	3.72	-106.5	13696.0		pale brown , clear, no sheenn, no odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW496

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.849 m bTOC	**Time SWL Measured:**	09:50 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.185 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.5 to 8 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:25		23.0	7.34	1352.0	1.10	-147.0	878.0		grey, clear, no sheen, no odour, moderate sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW500

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.424 m bTOC	**Time SWL Measured:**	08:10 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.880 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 6.5 m bgl		
Date:	16/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45		22.6	7.27	793.0	2.01	-42.9	516.0		pale yellow, cloudy, no sheen, no odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW516

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	6.122 m bTOC	**Time SWL Measured:**	10:20 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.905 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	7.1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 7.5 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:05		24.0	6.98	1174.0	2.01	-51.7	763.0		pale orange, cloudy, no sheen, mild hydrocarbon odour, minor sediment

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 0089_MW516_LABDUP, 0089_MW516_MS

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW553

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.583 m bTOC	**Time SWL Measured:**	11:00 AM
Project:	Defence PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.710 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.71 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl		
Date:	13/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:50		23.3	7.18	1042.0	1.17	-71.3	678.0		clear, colourless, no sheen, mild hydrocarbon odour, no sediment, grey sedimen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD340 / SW132
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	18/12/24
CLIENT:	Defence	**TIME:**	11.20 am
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot/sunny
VEGETATION / FAUNA	nil
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	ocean shallows, clear/colourless
SEDIMENT DESCRIPTION	fine to medium grain grey sand, poorly sorted, subangular

FIELD MEASUREMENTS

TEMPERATURE (°C)	26.6
DO (mg/L)	3.93
CONDUCTIVITY (µS/cm)	54748
pH	7.99
REDOX (mV)	-136.5
TURBIDITY (NTU)	TDS (mg/L): 36692

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD340_241218	–		
0089_SW132_241218	–		

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD341 / SW134
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	18/12/24
CLIENT:	Defence	**TIME:**	
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny & humid
VEGETATION / FAUNA	nil
SLOPE	/
EROSION	
SURFACE WATER DESCRIPTION	seawater in shallows, clear/ colourless
SEDIMENT DESCRIPTION	fine to medium grained grey sand, poorly sorted, subangular

FIELD MEASUREMENTS

TEMPERATURE (°C)	28.5
DO (mg/L)	3.95
CONDUCTIVITY (µS/cm)	55296
pH	7.93
REDOX (mV)	-105.7
TURBIDITY (NTU)	TDS (mg/L): 36008

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD341_241218	0089_QC119_241218	Split: 0089_QC219_241218	
0089_SW134_241218	0089_QC120_241218	Split: 0089_QC220_241218	

OTHER COMMENTS FOR CONSIDERATION (e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR _____ **CHECKED (SIGN & DATE)** _____

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD345 / SW370
PROJECT NAME:	Defence LC - Stirling OMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	10.50am
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny
VEGETATION / FAUNA	moderate seaweed
SLOPE	/
EROSION	
SURFACE WATER DESCRIPTION	sea water in shallows, clear/colourless
SEDIMENT DESCRIPTION	fine to medium grained yellow sand, subrounded

FIELD MEASUREMENTS

TEMPERATURE (°C)	27.9
DO (mg/L)	3.43
CONDUCTIVITY (µS/cm)	53413
pH	7.91
REDOX (mV)	-135.7
TURBIDITY (NTU)	TDS (mg/L) : 34719

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1 m
OTHER	shallows

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD345_0.1_241217	0089_QC112_0.1_241217		split: 0089_QC212_0.1_241217
0089_SW370_241217	0089_QC111_241217		0089_QC211_0.1_241217

OTHER COMMENTS FOR CONSIDERATION (e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD368 / SW 371
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	1pm
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny
VEGETATION / FAUNA	seaweed in shore
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	sea water in shallows, clear/colourless
SEDIMENT DESCRIPTION	fine to medium grained yellow sand, subrounded

FIELD MEASUREMENTS

TEMPERATURE (°C)	30.1
DO (mg/L)	3.35
CONDUCTIVITY (µS/cm)	53755
pH	8.05
REDOX (mV)	-100.2
TURBIDITY (NTU)	TDS (mg/L): 34941

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD368_241217	-	-	
0089_SW371_241217	-	-	

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD304
PROJECT NAME:	~~Defence~~ PFAS LC - Stirling DMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	1.30pm
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny
VEGETATION / FAUNA	
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	
SEDIMENT DESCRIPTION	fine to medium grained yellow sand, subrounded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
CONDUCTIVITY (µS/cm)	
pH	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD304_241217	—	—	

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD367
PROJECT NAME:	Defence LC - Stirling OMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	11.30 am
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny
VEGETATION / FAUNA	
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	
SEDIMENT DESCRIPTION	fine to medium grain yellow sand, subrounded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
CONDUCTIVITY (µS/cm)	
pH	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD367_0.1_241217	—	—	

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR _____ **CHECKED (SIGN & DATE)** _____

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD 369
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	10.30am
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny, low wind
VEGETATION / FAUNA	
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	
SEDIMENT DESCRIPTION	fine / medium grained yellow sand, subrounded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
CONDUCTIVITY (µS/cm)	
pH	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD369_0.1_241217			

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO. 12641234
PROJECT NAME: PFAS LC - Stirling OMP
CLIENT: Defence
SITE: Stirling
LOCATION ID: SD363
DATE: 18/12/24
TIME: 9.30am
LOGGED BY: [redacted]
COORDINATES/GPS *(if applicable)*
SAMPLING METHOD *(ie grab, bucket)* grab
DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER: windy, overcast
VEGETATION / FAUNA
SLOPE
EROSION
SURFACE WATER DESCRIPTION
SEDIMENT DESCRIPTION: fine to medium grain grey sand, poorly sorted, subangular

FIELD MEASUREMENTS

TEMPERATURE (°C)
DO (mg/L)
CONDUCTIVITY (µS/cm)
pH
REDOX (mV)
TURBIDITY (NTU)

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE m/s [ ] PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ]
CROSS SECTION WIDTH (m)
DEPTH (m)
OTHER

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0084_SD363_241218			

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR
CHECKED (SIGN & DATE)

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO. 12641234
PROJECT NAME: PFAS LC - Stirling OMP
CLIENT: Defence
SITE: Stirling
LOCATION ID: SD362
DATE: 18/12/24
TIME: 10.50am
LOGGED BY: [redacted]
COORDINATES/GPS *(if applicable)*
SAMPLING METHOD *(ie grab, bucket)* grab
DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER: Sunny & Windy
VEGETATION / FAUNA: nil
SLOPE
EROSION
SURFACE WATER DESCRIPTION
SEDIMENT DESCRIPTION: fine to medium grained grey sand, poorly sorted, sub angular

FIELD MEASUREMENTS

TEMPERATURE (°C)
DO (mg/L)
CONDUCTIVITY (µS/cm)
pH
REDOX (mV)
TURBIDITY (NTU)

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE [ ] PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)
DEPTH (m)
OTHER

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD362_241218			

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR
CHECKED (SIGN & DATE)

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD335
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	18/12/24
CLIENT:	Defence	**TIME:**	2.30pm
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny & windy
VEGETATION / FAUNA	nil
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	
SEDIMENT DESCRIPTION	fine to medium grained grey sand, poorly sorted, subangular

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
CONDUCTIVITY (µS/cm)	
pH	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD335_241218	–	–	

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD364
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	18/12/24
CLIENT:	Defence	**TIME:**	
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny / windy
VEGETATION / FAUNA	
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	
SEDIMENT DESCRIPTION	fine to medium grained grey sand, poorly sorted, subangular

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
CONDUCTIVITY (µS/cm)	
pH	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SD364_241218	–	–	–

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW 373
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	
SITE:	Stirling	**LOGGED BY:**	
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny
VEGETATION / FAUNA	moderate seaweed
SLOPE	/
EROSION	
SURFACE WATER DESCRIPTION	seawater in shallows, clear/colourless
SEDIMENT DESCRIPTION	/

FIELD MEASUREMENTS

TEMPERATURE (°C)	28.9
DO (mg/L)	4.29
CONDUCTIVITY (µS/cm)	53848
pH	8.12
REDOX (mV)	-137.0
TURBIDITY (NTU)	TDS (mg/L): 35001

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089-SW373_241217	—	—	—

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	LOCATION ID:	SW372
PROJECT NAME:	PFAS ~~Defence~~ LC - Stirling AMP	DATE:	17/12/24
CLIENT:	Defence	TIME:	2pm
SITE:	Stirling	LOGGED BY:	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot / sunny
VEGETATION / FAUNA	moderate seaweed
SLOPE	/
EROSION	
SURFACE WATER DESCRIPTION	seawater in shallows, clear/colourless
SEDIMENT DESCRIPTION	/

FIELD MEASUREMENTS

TEMPERATURE (°C)	29.6
DO (mg/L)	3.52
CONDUCTIVITY (µS/cm)	52641
pH	8.01
REDOX (mV)	-139.7
TURBIDITY (NTU)	TDS (mg/L): 34216

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1 m
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW372-241217	—	—	—

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR _____ **CHECKED (SIGN & DATE)** _____

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW305
PROJECT NAME:	DFAS LC - Stirling OMP	**DATE:**	17/12/24
CLIENT:	Defence	**TIME:**	1.55 pm
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	hot/sunny
VEGETATION / FAUNA	moderate seaweed
SLOPE	
EROSION	
SURFACE WATER DESCRIPTION	seawater in shallows, clear/colourless
SEDIMENT DESCRIPTION	

FIELD MEASUREMENTS

TEMPERATURE (°C)	29.1
DO (mg/L)	3.65
CONDUCTIVITY (µS/cm)	54131
pH	8.09
REDOX (mV)	-147.9
TURBIDITY (NTU)	TDS (mg/L): 35185

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1m
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW305_241217	—	—	—

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW130
PROJECT NAME:	PFAS LC - Stirling OMP	**DATE:**	18/12/24
CLIENT:	Defence	**TIME:**	
SITE:	Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	grab		
DETAILED SAMPLE LOCATION DESCRIPTION			

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny & windy
VEGETATION / FAUNA	nil
SLOPE	/
EROSION	
SURFACE WATER DESCRIPTION	ocean shallows, clear/colourless
SEDIMENT DESCRIPTION	/

FIELD MEASUREMENTS

TEMPERATURE (°C)	26.4
DO (mg/L)	3.98
CONDUCTIVITY (µS/cm)	54987
pH	8.08
REDOX (mV)	-90.2
TURBIDITY (NTU)	TDS (mg/L) : 35797

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	
DEPTH (m)	0.1
OTHER	

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW130_241218	—	—	/

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

Surface Water – Field Sheet

Client: Defence	Sample ID: 0089-SW384
Project: PFASOMP	Project Number: 12641234
Location: HMAS Stirling	Date: 19/12/24
Undertaken by: [redacted]	Time: 10:36

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean			
Collection point:		Equipment used: YSI 23610346?	

Dimensions of water body	Shape:	Width: m	Length: m	Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	23.4	91.5	2.55	53115	34525	7.91	134.7

Comments (e.g., sheen, colour, odour, sediment load): NO colour, no odour, no sheen, no sediment

SAMPLING DETAILS

Sample ID: 0089-SW384-20241219	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:	
Time: 10:36	Volume removed:	Number of sample containers: 3 (2x PFAS, 1x green)	Field Filtered Y / (N)
Type and number of sample containers: Preserved Plastic:	Unpreserved Plastic: 3	Preserved Glass:	Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: SW382
Project:	Project Number:
Location:	Date: 19/12/24
Undertaken by: [redacted]	Time:

SURFACE WATER DETAILS

Natural ☒	Man-made: ☐	Unknown: ☐	Flow rate: NA
Comment: ocean / beach			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean			
Collection point: NA		Equipment used: Sample pole	

Dimensions of water body	Shape: NA	Width: NA m	Length: NA m	Depth: ~~NA~~ 0.5 m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm|mg/L)	SPC (µS/cm)	TDS (ppm|mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.5	23.2	25.1	1.75	537.22	34,931	7.94	128.1

Comments (e.g., sheen, colour, odour, sediment load):

SAMPLING DETAILS

Sample ID: SW382	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs: NA	
Time: IN 11.30pm	Volume removed: NA	Number of sample containers: 3	Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: SW383 - 20241219
Project: PFAS QMP	Project Number: 12641234
Location: HMAS Stirling	Date: 19/12/24
Undertaken by: [redacted]	Time: 10:55

SURFACE WATER DETAILS

Natural: ☑ Man-made: ☐ Unknown: ☐ Flow rate:

Comment: /

Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean

Collection point: 2m from shore Equipment used: YSI 23610643?

Dimensions of water body / Shape: / Width: m / Length: / m Depth: / m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C) ±0.2 °C	DO %Sat ±10%	DO (ppm/mg/L) ±10%	SPC (µS/cm) ±3%	TDS (ppm/mg/L) ±3%	pH (pH units) ±0.1 pH units	Eh (mV) ±10 mV
0.1	23.0	20.8	1.46	53418	34728	7.93	119.8

Comments (e.g., sheen, colour, odour, sediment load):

no sheen, no odour, colourless, no sediment

SAMPLING DETAILS

Sample ID: SW383 Duplicate (QC) samples taken Y / (N) Duplicate (QC) sample IDs:

Time: 10:55 Volume removed: / Number of sample containers: 3 Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

SW353-241219

Surface Water – Field Sheet

Client: Defense	Sample ID: [redacted]
Project: PFAS	Project Number: 12641235
Location: Garden Island	Date: 19/12/24
Undertaken by: [redacted]	Time: 10:00

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean			
Collection point: 2m from shoreline		Equipment used:	

Dimensions of water body	Shape: /	Width: m /	Length: / m	Depth: / m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	22.8	32.6	2.12	53204	34588	7.90	145.1

Comments (e.g., sheen, colour, odour, sediment load):

no sheen, no odour, colourless, clear, no sediment

SAMPLING DETAILS

Sample ID: SW353_241219	Duplicate (QC) samples taken (Y) / N	Duplicate (QC) sample IDs:	
Time: 10:00	Volume removed: /	Number of sample containers: 7	Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 7 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Department of Defence	Sample ID: 0089-SW311
Project: PFAS OMP	Project Number: 12641234
Location: HMAS Stirling	Date: 18/12/24
Undertaken by: [redacted]	Time:

SURFACE WATER DETAILS

Natural: ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean			
Collection point: 2 m from shore		Equipment used: YSI 23610 3462	
Dimensions of water body	Shape:	Width: m	Length: m / Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	24.6	30.2	2.19	53673	34888	8.01	77.6

Comments (e.g., sheen, colour, odour, sediment load):

no sheen / no colour / no odour / no sediment. Beaches

SAMPLING DETAILS

Sample ID: 0089-SW311-20241218	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:	
Time:	Volume removed:	Number of sample containers: 3	Field Filtered Y / (N)
Type and number of sample containers: Preserved Plastic:	Unpreserved Plastic: 3	Preserved Glass:	Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Department of Defence	Sample ID: 0089-SW310
Project: PFAS OMP	Project Number: 12641230
Location: HMAS Stirling	Date: 18/12/2020
Undertaken by: [redacted]	Time:

SURFACE WATER DETAILS

Natural: ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean			
Collection point: 100 M from shore		Equipment used: YSI 23610 3462	
Dimensions of water body	Shape:	Width: m	Length: m / Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	25.7	29.8	1.94	53919	35047	7.80	37.8

Comments (e.g., sheen, colour, odour, sediment load):

SAMPLING DETAILS

Sample ID: 0089-SW310-20201218	Duplicate (QC) samples taken: Y / (N)	Duplicate (QC) sample IDs: N/A	
Time: 14:06	Volume removed: —	Number of sample containers: 3	Field Filtered: Y / (N)
Type and number of sample containers: Preserved Plastic:	Unpreserved Plastic: 3	Preserved Glass:	Unpreserved Glass: / Preserved Vial: / Unpreserved Vial:

Surface Water – Field Sheet

Client: Defense	Sample ID: SW309_241218
Project: PFAS OMP	Project Number: 12641234
Location: Garden Island	Date: 18/12/24
Undertaken by:	Time: 11:20

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment: /			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean			
Collection point: 2 m from shore		Equipment used: YSI 23G103462	
Dimensions of water body /	Shape: /	Width: m /	Length: m /	Depth: / m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	25.3	24.5	1.69	53552	34810	7.99	74.7

Comments (e.g., sheen, colour, odour, sediment load):

no odour, no sheen, clear, colourless, no sediment

SAMPLING DETAILS

Sample ID: SW309_241218	Duplicate (QC) samples taken Y / N	Duplicate (QC) sample IDs: /	
Time: 11:20	Volume removed: /	Number of sample containers: 3	Field Filtered Y / N

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: SW416_241218
Project: PFAS OMP	Project Number: 12641234
Location: Garden Island	Date: 18/12/24
Undertaken by: [redacted]	Time: 09:55

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment: /			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean			
Collection point: 2m from shore		Equipment used: YSI 23610346Z	
Dimensions of water body	Shape: /	Width: m /	Length: m / Depth: / m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	25.8	60.3	4.02	53544	34808	7.87	127.8

Comments (e.g., sheen, colour, odour, sediment load):

no sheen / colourless, no odour, clear, no sediment

SAMPLING DETAILS

Sample ID: SW416_241218	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs: /	
Time: 10:00	Volume removed: /	Number of sample containers: /	Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: 0089-SW414
Project: PFAS OMP	Project Number: 12641234
Location: Garden Island	Date: 18/12/24
Undertaken by: [redacted]	Time: 9:27

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:

Comment: Ocean

Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean

Collection point: ~1m from shoreline	Equipment used: YSI 23610346Z

Dimensions of water body	Shape:	Width: m	Length: m	Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1m	27.0	16.1	1.05	53521	34790	7.82	131.7

Comments (e.g., sheen, colour, odour, sediment load): No colour, no odour, no sheen, no sediment

SAMPLING DETAILS

Sample ID: 0089-SW414-20241218	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:
Time: 9:27	Volume removed: —	Number of sample containers: 2x PFAS (Standard), 1x green — Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defense	Sample ID: SW412_241218
Project: PFAS OMP	Project Number: 12641234
Location: Garden Island	Date: 18/12/24
Undertaken by: [redacted]	Time: 08:40

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean			
Collection point: 2m from shore		Equipment used: YSI 23G103462	
Dimensions of water body	Shape: /	Width: / m	Length: / m	Depth: / m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm|mg/L)	SPC (µS/cm)	TDS (ppm|mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	24.7	73.1	4.77	53 057	34485	7.83	100.7

Comments (e.g., sheen, colour, odour, sediment load):

no sheen, no colour, no odour, no sediment

SAMPLING DETAILS

Sample ID: SW412_241218	Duplicate (QC) samples taken (Y) / N	Duplicate (QC) sample IDs: QC116_241218, QC216_241218	
Time: 08:45	Volume removed: /	Number of sample containers: 7	Field Filtered Y / (N)
Type and number of sample containers:	Preserved Plastic:	Unpreserved Plastic: 7	Preserved Glass:	Unpreserved Glass:	Preserved Vial:	Unpreserved Vial:

Surface Water – Field Sheet

Client: Defense	~~Sample ID:~~ 12641234
Project: PFAS OMP	~~Project Number:~~ sample id SW410-241217
Location: Garden Island	Date: 17/12
Undertaken by: [redacted]	Time: 2:30

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean			
Collection point: 2m from shore		Equipment used: YSI 23610342	

Dimensions of water body	Shape:	Width: m	Length: m	Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	31.7	22.3	1.34	53086	34507	8.21	134.1

Comments (e.g., sheen, colour, odour, sediment load): no colour, no odour, no sheen, no sediment

SAMPLING DETAILS

Sample ID: SW410_241217	Duplicate (QC) samples taken Y / N	Duplicate (QC) sample IDs:	
Time: 2:33	Volume removed:	Number of sample containers: 3	Field Filtered Y / N

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: 0089-SW08-20241217
Project: PFAS OMP	Project Number: 12617234
Location: Garden Island	Date: 17/12/24
Undertaken by: [redacted]	Time: 12:30

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:

Comment: Ocean

Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other:

Collection point: ~ 1m from shore	Equipment used: YSI 23G103462

Dimensions of water body	Shape:	Width: m	Length: m	Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	30.4	30.2	2.07	53665	34886	7.83	122.1

Comments (e.g., sheen, colour, odour, sediment load): no colour, no odour, no sheen, no sediment

SAMPLING DETAILS

Sample ID: 0089-SW408-20241217	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:	
Time: 12:30	Volume removed:	Number of sample containers: 3 2xPFAS(standard) 1x Green	Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: SW406_241217
Project: PFAS OMP	Project Number: 12641234
Location: Garden Island	Date: 17/12
Undertaken by: [redacted]	Time: 1:00

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean			
Collection point: 2m from shore		Equipment used: YSI 23G103462	
Dimensions of water body	Shape:	Width: m	Length: m / Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	31.0	71.2	4.23	53388	34717	7.88	102.6

Comments (e.g., sheen, colour, odour, sediment load):

no sheen / colour / odour / sediment

SAMPLING DETAILS

Sample ID: SW406_241217	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:	
Time:	Volume removed:	Number of sample containers: 3	Field Filtered Y / (N)
Type and number of sample containers: Preserved Plastic:	Unpreserved Plastic: 3	Preserved Glass:	Unpreserved Glass: / Preserved Vial: / Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: SW318_241217
Project: PFAS OMP	Project Number: ~~Form~~ 12641234
Location: Garden Island	Date: 17/12
Undertaken by: [redacted]	Time: 10:15

SURFACE WATER DETAILS

Natural: ☑	Man-made: ☐	Unknown: ☐	Flow rate:
Comment:			
Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: ocean			
Collection point: 2m from shoreline		Equipment used: YSI 23610362	
Dimensions of water body	Shape:	Width: m	Length: m / Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1 M	25.3	11.0	0.74	52345	34023	8.00	145.6

Comments (e.g., sheen, colour, odour, sediment load):

No colour, no odour, no sheen, no sediment

SAMPLING DETAILS

Sample ID: SW318_241217	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:	
Time: 10:17	Volume removed:	Number of sample containers: 3	Field Filtered Y / (N)
Type and number of sample containers: Preserved Plastic:	Unpreserved Plastic: 3	Preserved Glass:	Unpreserved Glass: / Preserved Vial: / Unpreserved Vial:

Surface Water – Field Sheet

Client: Defence	Sample ID: 0089-SW319-20241217
Project: PFAS OMP	Project Number: 12617234
Location: Garden Island	Date: 17/12/24
Undertaken by: [redacted]	Time: 10:45

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:

Comment: Ocean

Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean

Collection point: ~ 1m from shore	Equipment used: YSI 23610346 2

Dimensions of water body	Shape:	Width: m	Length: m	Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2 °C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1 m	27.6	22.6	1.48	53218	34595	7.98	118.0

Comments (e.g., sheen, colour, odour, sediment load): No colour, no odour, no sheen, no sediment

SAMPLING DETAILS

Sample ID: 0089-SW319-20241217	Duplicate (QC) samples taken Y / (N)	Duplicate (QC) sample IDs:	
Time: 10.45	Volume removed:	Number of sample containers: 2x PFAS (standard) 1x green	Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

Surface Water – Field Sheet

Client: Department of Defence	Sample ID: 0089-SW317-241217
Project: OMP	Project Number: 12641234
Location: Garden Island	Date: 17/12/24
Undertaken by: [redacted]	Time: 8:45

SURFACE WATER DETAILS

Natural ☑	Man-made: ☐	Unknown: ☐	Flow rate:

Comment: Ocean

Type of water body: River ☐ Creek ☐ Stream ☐ Drain ☐ Culvert ☐ Dam ☐ Pond ☐ Other: Ocean

Collection point: ~ 1m from shoreline	Equipment used: YSI 23G103462

Dimensions of water body	Shape:	Width: m	Length: m	Depth: m

WATER PARAMETERS

Sample Depth (m)	Temp. (°C)	DO %Sat	DO (ppm/mg/L)	SPC (µS/cm)	TDS (ppm/mg/L)	pH (pH units)	Eh (mV)
	±0.2°C	±10%	±10%	±3%	±3%	±0.1 pH units	±10 mV
0.1	24.0	68.2	5.20	52210	33928	7.88	162.0

Comments (e.g., sheen, colour, odour, sediment load): No colour, no sheen, no sediment, no odour

SAMPLING DETAILS

Sample ID: 0089-SW317-20241217	Duplicate (QC) samples taken (Y) / N	Duplicate (QC) sample IDs: 0089-QC108-241217 + 0089-QC208-241217
Time: 8:45	Volume removed:	Number of sample containers: 3 (2 x PFAS (standard) 1 x Green) Field Filtered Y / (N)

Type and number of sample containers: Preserved Plastic: Unpreserved Plastic: 3 Preserved Glass: Unpreserved Glass: Preserved Vial: Unpreserved Vial:

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW156 /SD329
PROJECT NAME:	Defence OMP	**DATE:**	14/01/2025
CLIENT:	Department of Defence	**TIME:**	11:11
SITE:	Demolition Ground	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	SW sampling pole		
DETAILED SAMPLE LOCATION DESCRIPTION	ocean, cockburn sound, northen section of garden island		

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny
VEGETATION / FAUNA	beach shrubs, grasshoppers
SLOPE	10 degrees
EROSION	no
SURFACE WATER DESCRIPTION	clear, colourless, no odour, no sheen
SEDIMENT DESCRIPTION	grey, SAND, coarse, saturated, sr - sa, collected from porewater hole (PW329)

FIELD MEASUREMENTS

TEMPERATURE (°C)	30.4
DO (mg/L)	4.59
CONDUCTIVITY (µS/cm)	56167
pH	8.00
REDOX (mV)	-76.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	[illegible] m/s
CROSS SECTION WIDTH (m)	cockburn sound
DEPTH (m)	0.7
OTHER	ocean

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW156_250114	-	-	
0089_SD329_250114			collected with PW329

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW154/ SD330
PROJECT NAME:	Defence OMP	**DATE:**	14/01/2025
CLIENT:	Department of Defence	**TIME:**	11:30
SITE:	Demolition Ground	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	SW sampling pole		
DETAILED SAMPLE LOCATION DESCRIPTION	ocean, cockburn sound, northen section of garden island		

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny
VEGETATION / FAUNA	beach shrubs, grasshoppers
SLOPE	10 degrees
EROSION	no
SURFACE WATER DESCRIPTION	clear, colourless, no odour, no sheen
SEDIMENT DESCRIPTION	grey, SAND, coarse, saturated, sr - sa, collected from porewater hole (PW330)

FIELD MEASUREMENTS

TEMPERATURE (°C)	26.9
DO (mg/L)	2.83
CONDUCTIVITY (µS/cm)	56516
pH	8.11
REDOX (mV)	-80.6
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	cockburn sound
DEPTH (m)	0.7
OTHER	ocean

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW154_250114	-	-	
0089_SD330_250114			collected with PW329

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW152 /SD357
PROJECT NAME:	Defence OMP	**DATE:**	14/01/2025
CLIENT:	Department of Defence	**TIME:**	11:45
SITE:	Demolition Ground	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	SW sampling pole		
DETAILED SAMPLE LOCATION DESCRIPTION	ocean, cockburn sound, northen section of garden island		

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny
VEGETATION / FAUNA	beach shrubs, grasshoppers
SLOPE	10 degrees
EROSION	no
SURFACE WATER DESCRIPTION	clear, colourless, no odour, no sheen
SEDIMENT DESCRIPTION	grey, SAND, coarse, saturated, sr - sa, collected from porewater hole (PW357)

FIELD MEASUREMENTS

TEMPERATURE (°C)	27.1
DO (mg/L)	3.40
CONDUCTIVITY (µS/cm)	56552
pH	8.10
REDOX (mV)	-80.0
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	[illegible] m/s
CROSS SECTION WIDTH (m)	cockburn sound
DEPTH (m)	0.7
OTHER	ocean

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW152_250114	-	-	
0089_SD357_250114			collected with PW329

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SW150
PROJECT NAME:	Defence OMP	**DATE:**	14/01/2025
CLIENT:	Department of Defence	**TIME:**	12:12
SITE:	Demolition Ground	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	SW sampling pole		
DETAILED SAMPLE LOCATION DESCRIPTION	ocean, cockburn sound, northen section of garden island		

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny
VEGETATION / FAUNA	beach shrubs, grasshoppers
SLOPE	10 degrees
EROSION	no
SURFACE WATER DESCRIPTION	clear, colourless, no odour, no sheen
SEDIMENT DESCRIPTION	-

FIELD MEASUREMENTS

TEMPERATURE (°C)	30.7
DO (mg/L)	4.77
CONDUCTIVITY (µS/cm)	57186
pH	8.05
REDOX (mV)	-75.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	PONDED [ ] SEEPING/TRICKLING [ ] SLIGHT [ ] MODERATE [ ] FAST [ ] m/s
CROSS SECTION WIDTH (m)	cockburn sound
DEPTH (m)	0.7
OTHER	ocean

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
0089_SW150_250114	0089_QC122_250114	-	
	0089_QC222_250114		

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR **CHECKED (SIGN & DATE)**

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.	12641234	**LOCATION ID:**	SD331
PROJECT NAME:	Defence OMP	**DATE:**	14/01/2025
CLIENT:	Department of Defence	**TIME:**	14:22
SITE:	Demolition Ground	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)*

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny
VEGETATION / FAUNA	beach shrubs, grasshoppers, wrack
SLOPE	10 degrees
EROSION	no
SURFACE WATER DESCRIPTION	clear, colourless, no odour, no sheen
SEDIMENT DESCRIPTION	grey, SAND, coarse, saturated, sr - sa, collected from porewater hole (PW331)

FIELD MEASUREMENTS

TEMPERATURE (°C)	-
DO (mg/L)	-
CONDUCTIVITY (µS/cm)	-
pH	-
REDOX (mV)	-
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT / RATE	m/s
CROSS SECTION WIDTH (m)	cockburn sound
DEPTH (m)	0.7
OTHER	ocean

SAMPLE ID	DUPLICATE ID	LAB QAQC VOLUME COLLECTED	COMMENT
	-	-	
0089_SD331_250114			collected with PW331

OTHER COMMENTS FOR CONSIDERATION
(e.g. HSE, access issues, change in location, general observation):

FIELD SUPERVISOR

CHECKED (SIGN & DATE)

Purging and Sampling Record

Well ID: 0089_PW304

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	- m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:05		25.9	7.39	49249.0	2.13	-177.0			cloudy, colourless, no sheen, no odour, minor sediment
14:08		26.3	7.34	48536.0	1.59	-184.2			
14:10		26.5	7.34	48112.0	1.09	-186.3			
14:12		27.0	7.32	45830.0	1.13	-187.3	29761.0		

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW306

Job Information		Sampling Information		Monitoring Well Information	
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	- m bTOC
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	m bTOC
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bTOC
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm
Round:	Post Winter 2024	**Field Filtered?**	No		

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:31		25.5	7.55	53875.0	1.34	110.0			No colour, no odour, no sediment, no sheet
11:33		25.0	7.54	54071.0	1.54	108.8			
11:36		25.0	7.54	51521.0	1.43	105.7	31178.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW329

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	14/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:15		26.6	7.69	58757.0	2.70	-81.5	38200.0		Clear, colourless, no odour, no sheen
									porewater sample

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW330

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	14/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45		25.2	7.64	58256.0	0.80	-99.9	38880.0		Clear, colourless, no odour, no sheen
									porewater sample

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW331

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	14/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:22		23.6	7.29	57984.0	0.86	-193.4	37657.0		Clear, colourless, no odour, no sheen
									porewater sample, a lot of wrack (dried seaplants) in area

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC124_250114
#Primary sample containers		Duplicate analysis:		Duplicate 2 ID:	0089_QC224_250114

Purging and Sampling Record

Well ID: 0089_PW335

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:30		26.3	7.61	58161.0	1.52	-91.5			clear, colourless, no sheen, no odour, minor sediment
14:34		26.3	7.60	58379.0	1.98	-91.0			
14:37		26.1	7.60	58794.0	1.81	-91.4	38168.0		

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW340

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	Purge Method:	No purge	SWL:	m bTOC	Time SWL Measured:	
Project:	Defence PFASIM LC WA	Sample Method:	Bailer	Well Depth:	- m bTOC	Logic Check:	Yes
Proj. No.:	12641234	Sample Depth:	- m bTOC	NAPL Check:	Absent	Well Cap Secure?	
Site:	HMAS Stirling	WQuality Meter Type:	YSI	NAPL Depth:	- m bTOC	Gatic or Stick Up?	Stick Up
Sampler:	[redacted]	Flow Cell Used?	No	Screened Interval From:	to m bTOC		
Date:	18/12/2024	WLevel Meter Type:	Interface Probe	Well Diameter:	50 mm	Stick Up:	m
Round:	Post Winter 2024	Field Filtered?	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:20		24.7	7.66	56614.0	2.12	-147.6			
11:25		24.8	7.64	56536.0	2.15	-150.9			
11:28		24.9	7.62	56800.0	1.92	-154.2	36984.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes

#Primary sample containers

Duplicate collected? No

Duplicate analysis:

Duplicate 1 ID:

Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW341

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:17		24.5	7.67	56540.0	1.81	-120.8			colourless, cloudy, no sheen, no odour, minor sediment
10:20		24.1	7.66	56181.0	2.07	-122.5			
10:23		24.5	7.64	56290.0	1.93	-120.9			
10:26		24.5	7.63	56193.0	1.58	-120.2			
		24.6	7.64	56020.0	1.83	-119.3	36474.0		

Field QA Checks:		*Stabilisation Readings*	
Air bubbles in vials or violent reactions?	No		Current parameter is stablised based on the previous 3 readings
Decontamination as per GHD procedure?	Yes		Current parameter is not stabilised based on the previous 3 readings
Was sampling equipment pre-cleaned?	Yes		Potential data entry error, confirm the value entered is correct
COC updated?	Yes		

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC121_241218
#Primary sample containers		Duplicate analysis:		Duplicate 2 ID:	0089_QC221_241218

Purging and Sampling Record

Well ID: 0089_PW345

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	Purge Method:	No purge	SWL:	m bTOC	Time SWL Measured:	
Project:	Defence PFASIM LC WA	Sample Method:	Bailer	Well Depth:	- m bTOC	Logic Check:	Yes
Proj. No.:	12641234	Sample Depth:	- m bTOC	NAPL Check:	Absent	Well Cap Secure?	
Site:	HMAS Stirling	WQuality Meter Type:	YSI	NAPL Depth:	- m bTOC	Gatic or Stick Up?	Stick Up
Sampler:	[redacted]	Flow Cell Used?	No	Screened Interval From:	to m bTOC		
Date:	17/12/2024	WLevel Meter Type:	Interface Probe	Well Diameter:	50 mm	Stick Up:	m
Round:	Post Winter 2024	Field Filtered?	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:00		25.5	7.37	64352.0	2.47	-153.2			pale brown , no sheen, no odour, high sediment load
11:02		24.9	7.35	63373.0	0.85	-168.0			
11:05		25.0	7.36	63290.0	0.82	-170.1			
11:08		25.0	7.34	63008.0	0.60	-174.3	40972.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers
Duplicate collected? Yes
Duplicate analysis:
Duplicate 1 ID: 0089_QC113_241217
Duplicate 2 ID: 0089_QC213_241217

Purging and Sampling Record

Well ID: 0089_PW346

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:12		27.6	7.49	21934.0	1.44	-147.0			cloudy, colourless, no sheen, nonodour, minor sediment
15:15		27.6	7.39	31797.0	0.92	-177.1			
15:20		27.6	7.39	31050.0	0.78	-186.0			
15:22		28.0	7.41	31872.0	0.83	-203.2			
15:25		27.7	7.40	31298.0	0.81	-203.7	20366.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC114_241217

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC214_241217

Purging and Sampling Record

Well ID: 0089_PW351

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	19/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:43		22.3	7.63	54043.0	1.58	120.8			
11:45		23.2	7.67	53175.0	1.69	121.7			
11:46		23.0	7.67	53142.0	172.00	118.3	31729.0		No colour, no odour, no sediment, no sheen

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW352

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	19/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:26		23.3	7.77	54356.0	7.91	99.8			
12:28		22.6	7.80	54074.0	7.81	100.9			
12:30		22.4	7.79	53891.0	7.81	99.3	32145.0		No colour, no odour, no sediment, no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW353

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	19/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:14		22.6	7.60	53931.0	1.52	1432.0			no colour, no odour, no sediment, no sheen
10:17		22.3	7.57	27446.0	1.75	128.5			
10:21		22.5	7.57	53595.0	1.57	125.5	35906.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW356

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	14/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:40		24.1	7.31	57739.0	1.35	-134.4	37531.0		Clear, colourless, no odour, no sheen
									porewater sample, a lot of wrack (dried seaplants) in area

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW357

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	14/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:00		25.5	7.62	58087.0	0.47	-99.9	37738.0		Clear, colourless, no odour, no sheen
									porewater sample

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW358

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	14/01/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:20		24.8	7.99	58044.0	0.77	-101.5	37770.0		Clear, colourless, no odour, no sheen
									porewater sample

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW362

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:50		24.5	7.51	56183.0	1.72	-162.7			colourless, cloudy, no sheen, no odour, moderate sediment
10:54		24.5	7.56	55775.0	1.80	-177.0			
10:57		24.7	7.55	55869.0	1.65	-182.6	36344.0		
11:00									

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW363

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:30		24.3	7.66	55900.0	2.73	-90.4			colourless, cloudy, no sheen, no odour, moderate sediment
09:35		24.4	7.66	55987.0	2.29	-91.0			
09:38		24.6	7.64	56327.0	2.20	-90.6			
09:40		24.6	7.64	56046.0	2.12	-90.3	36512.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW364

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:50		25.5	7.63	57109.0	2.85	-131.6			clear, colourless, no sheen, no odour, moderate sediment
11:54		25.3	7.62	57164.0	1.81	-133.4			
11:58		25.7	7.61	57122.0	1.86	-132.7	37158.0		

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW367

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:30		26.2	7.57	55605.0	2.50	-191.0			pale brown, clear, no sheen, no odour, high sediment
11:40		26.7	7.58	55423.0	1.08	-206.3			
11:45		26.1	7.54	55265.0	1.32	-209.7			
11:48		26.1	7.51	55261.0	0.89	-225.1	35941.0		

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW368

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:25		26.5	7.30	40288.0	1.69	-160.3			pale grey, clear, colourless, no sheen, no odour, minor sediment
13:28		25.2	7.31	39108.0	1.08	-168.8			
13:32		25.2	7.20	45405.0	0.69	-191.2			
13:35		25.0	7.18	51028.0	0.70	-198.7			
13:38		24.8	7.17	50455.0	0.63	-214.0	32814.0		

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW369

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	- m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:00		24.4	7.58	55507.0	0.91	-171.3			pale brown, clear, no sheen, no odour, high sediment load
10:08		24.8	7.57	55642.0	1.16	-166.7			
10:12		24.8	7.56	55559.0	1.13	-167.8	36186.0		

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW374

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:51		25.8	7.44	53745.0	1.10	150.2			
10:53		25.4	7.42	53606.0	1.19	150.1			
10:56		25.0	7.41	53200.0	1.28	152.4	34555.0		no colour, no odour, no sediment, no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW375

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:21		26.5	7.62	47664.0	0.66	193.5			no colour, no odour, no sediment, no sheen
10:23		26.8	7.65	47200.0	0.62	181.5			
10:25		27.1	7.68	47533.0	0.59	174.3	31186.0		hole approxi ately5m from shoreline

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW378

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:40		23.7	7.61	53723.0	1.15	145.1			no colour, no odour, no sediment, no sheen
09:43		24.9	7.65	53464.0	1.10	147.0			
09:46		25.1	7.66	53680.0	1.07	147.2			Tried 3 holes, this is the 3rd hole aprox 4m from shoreline,can not go futher back

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC110_241217

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC210_241217

Purging and Sampling Record

Well ID: 0089_PW380

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	19/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:09		22.7	7.66	53706.0	1.98	41.8			no colour, no odour, no sediment, no sheen
11:11		22.7	7.65	53430.0	1.86	63.2			
11:13		22.8	7.66	53670.0	1.99	71.3	34761.0		sample taken 4m from from shoreline
									TDS 34761

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW381

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	19/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:07		23.7	7.78	54208.0	1.45	119.7	34712.0		no colour, no odour, no sediment, no sheen
									sample taken 4m from from shoreline

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW401

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	19/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:42		22.7	7.67	53707.0	2.67	123.5			no colour, no odour, no sediment, no sheen
10:44		22.2	7.72	54159.0	2.77	140.2			
10:47		22.1	7.70	54144.0	2.30	138.6	35216.0		sample taken 4m from from shoreline
									TDS 35216

Field QA Checks:		*Stabilisation Readings*	
Air bubbles in vials or violent reactions?	No		Current parameter is stablised based on the previous 3 readings
Decontamination as per GHD procedure?	Yes		Current parameter is not stabilised based on the previous 3 readings
Was sampling equipment pre-cleaned?	Yes		Potential data entry error, confirm the value entered is correct
COC updated?	Yes		

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW405

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:14		25.3	7.25	47963.0	4.50	119.8			no colour, no odour, no sediment, no sheen
13:17		25.1	7.27	47777.0	3.93	112.6			
13:20		25.0	7.28	47770.0	3.78	110.2			sample taken fro 6m from shoreline
									TDS 31048

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW407

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	17/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45		29.7	7.62	54550.0	4.33	114.7	35443.0		no colour, no odour, no sediment, no sheen
									sample taken 4m from from shoreline

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW409

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	Purge Method:	Low flow	SWL:	m bTOC	Time SWL Measured:	
Project:	Defence PFASIM LC WA	Sample Method:	Peri pump	Well Depth:	- m bTOC	Logic Check:	Yes
Proj. No.:	12641234	Sample Depth:	0.5 m bTOC	NAPL Check:	Absent	Well Cap Secure?	
Site:	HMAS Stirling	WQuality Meter Type:	YSI	NAPL Depth:	- m bTOC	Gatic or Stick Up?	Stick Up
Sampler:	[redacted]	Flow Cell Used?	No	Screened Interval From:	to m bTOC		
Date:	17/12/2024	WLevel Meter Type:	Interface Probe	Well Diameter:	50 mm	Stick Up:	m
Round:	Post Winter 2024	Field Filtered?	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:40		30.0	7.56	48137.0	1.22	143.2			no colour, no odour, no sediment, no sheen
14:42		29.9	7.55	53141.0	1.12	143.5			
14:44		28.3	7.53	5530.0	1.24	143.2	35840.0		sample taken 4m from from shoreline
									TDS 35840

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers
Duplicate collected? No
Duplicate analysis:
Duplicate 1 ID:
Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW411

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department of Defence	Purge Method:	Low flow	SWL:	m bTOC	Time SWL Measured:	
Project:	Defence PFASIM LC WA	Sample Method:	Peri pump	Well Depth:	- m bTOC	Logic Check:	Yes
Proj. No.:	12641234	Sample Depth:	0.5 m bTOC	NAPL Check:	Absent	Well Cap Secure?	
Site:	HMAS Stirling	WQuality Meter Type:	YSI	NAPL Depth:	- m bTOC	Gatic or Stick Up?	Stick Up
Sampler:	[redacted]	Flow Cell Used?	No	Screened Interval From:	to m bTOC		
Date:	18/12/2024	WLevel Meter Type:	Interface Probe	Well Diameter:	50 mm	Stick Up:	m
Round:	Post Winter 2024	Field Filtered?	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:54		24.5	7.45	53570.0	1.55	122.9			no colour, no odour, no sediment, no sheen
08:57		24.4	7.47	53543.0	1.48	120.1	34939.0		
									sample taken 4m from from shoreline

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers
Duplicate collected? Yes
Duplicate analysis:
Duplicate 1 ID: 0089_QC117_241218
Duplicate 2 ID: 0089_QC217_241218

Purging and Sampling Record

Well ID: 0089_PW413

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:34		24.5	7.41	54139.0	3.97	85.6			no colour, no odour, some sediment, no sheen
09:36		24.3	7.39	54084.0	3.54	72.1			
09:38		24.3	7.38	54043.0	4.07	59.6	35114.0		sample taken 4m from from shoreline
									TDS 35114

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW415

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	0.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to m bTOC		
Date:	18/12/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Winter 2024	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:05		24.7	7.44	53793.0	4.75	119.3			no colour, no odour, no sediment, no sheen
10:07		24.7	7.44	53812.0	4.66	118.6			
10:09		24.6	7.44	53811.0	4.66	117.6	34977.0		sample taken 4m from from shoreline
									TDS 34977

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

QC Duplicate Sample Register Form – 0089 HMS Stirling

Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
12/12/24	0089_MW195D_241212	0089_QC101_241212	0089_QC201_241212	2 x 2	[redacted]
13/12/24	0089_MW239_241213	0089_QC102_241213	0089_QC202_241213	2x2	
13/12/24	0089_MW010_241213	0089_QC103_241213	0089_QC203_241213	2x2	
13/12/24	0089_MW268_241213	0089_QC104_241213	0089_QC204_241213	2x2	
16/12/24	0089_MW215_241216	0089_QC105_241216	0089_QC205_241216	2x2	
16/12/24	0089_MW123_241216	0089_QC106_241216	0089_QC206_241216	2x2	
16/12/24	0089_MW289_241216	0089_QC107_241216	0089_QC207_241216	2x2	
17/12/24	0089_SW317_241217	0089_QC108_241217	0089_QC208_241217	2x2	
17/12/24	0089_SD378_241217	0089_QC109_241217	0089_QC209_241217	2x1	
17/12/24	0089_PW378_241217	0089_QC110_241217	0089_QC210_241217	2x2	
17/12/24	0089_SW370_241217	0089_QC111_241217	0089_QC211_241217	2x2	
17/12/24	0089_SD345_241217	0089_QC112_241217	0089_QC212_241217	2x1 jar	
17/12/24	0089_PW345_241217	0089_QC113_241217	0089_QC213_241217	2x2	
17/12/24	0089_PW346_241217	0089_QC114_241217	0089_QC214_241217	2x2	

QC Duplicate Sample Register Form – 0089 HMS Stirling

Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
17/12/24	0089_SD346_241217	0089_QC115_241217	0089_QC215_241217	2x1	[redacted]
18/12/24	0089_SW412_241218	0089_QC116_241218	0089_QC216_241218	2x2	
18/12/24	0089_PW411_241218	0089_QC117_241218	0089_QC217_241218	2x2	
18/12/24	0089_SD411_241218	0089_QC118_241218	0089_QC218_241218	2x1	
18/12/24	0089_SD341_241218	0089_QC119_241218	0089_QC219_241218	2x1	
18/12/24	0089_SW134_241218	0089_QC120_241218	0089_QC220_241218	2x2	
18/12/24	0089_PW341_241218	0089_QC121_241218	0089_QC221_241218	2x2	

QC Duplicate Sample Register Form – 0089 HMS Stirling

Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
17/12/24	0089_SD346_241217	0089_QC115_241217	0089_QC215_241217	2x1	[redacted]
18/12/24	0089_SW412_241218	0089_QC116_241218	0089_QC216_241218	2x2	
18/12/24	0089_PW411_241218	0089_QC117_241218	0089_QC217_241218	2x2	
18/12/24	0089_SD411_241218	0089_QC118_241218	0089_QC218_241218	2x1	
18/12/24	0089_SD341_241218	0089_QC119_241218	0089_QC219_241218	2x1	
18/12/24	0089_SW134_241218	0089_QC120_241218	0089_QC220_241218	2x2	
18/12/24	0089_PW341_241218	0089_QC121_241218	0089_QC221_241218	2x2	
14/01/25	0089_SW150_250114	0089_QC122_250114	0089_QC222_250114	2 pFAS	
14/01/25	0089_SD358_250114	0089_QC123_250114	0089_QC223_250114	1 PFAS 50i)	
14/01/25	0089_PW331_250114	0089_QC124_250114	0089_QC124_250114	2 PFAS	
15/01/25	0089_MW147_250115	0089_QC125_250115	0089_QC225_250115	11	

RB : 1 per day, per person

FB : 1 per day, per esky

QA Blank Sample Register Form

Date/Time	QA Blank Sample ID	Type (circle)	Notes *(Rinsate taken off, field blank location etc.)*	Containers	Initials
6/12/24 3.45pm	0089_QC301_241206	(RB) FB TB	Taken off interface probe	2x20mL PFAS	[redacted]
9/12/24 3.15pm	0089_QC302_241209	(RB) FB TB	Taken off interface probe, carpark	" "	
9/12/24 3.15pm	0089_QC303_241209	(RB) FB TB	" "	" "	
10/12/24 3.20pm	0089_QC304_241210	(RB) FB TB	" "	" "	
10/12/24 3.20pm	0089_QC305_241210	(RB) FB TB	" "	" "	
11/12/24 3.30pm	0089_QC306_241211	(RB) FB TB	" MW228	" "	
11/12/24 3.30pm	0089_QC307_241211	(RB) FB TB	" MW228 MW228	" "	
12/12/24 3.15pm	0089_QC308_241212	(RB) FB TB	" " MW199	" "	
12/12/24 3.20pm	0089_QC401_241212	RB (FB) TB	MW199	" "	
13/12/24 2.30pm	0089_QC402_241213	RB (FB) TB	MW259	" "	
13/12/24 2.45pm	0089_QC309_241213	(RB) FB TB	Taken off dipper, DFI carpark	" "	
16/12/24 3pm	0089_QC310_241216	(RB) FB TB	" " Accomodation carpark	" "	
16/12/24 3pm	0089_QC403_241216	RB (FB) TB	MW289	" "	
17/12/24 330pm	0089_QC404_241217	RB (FB) TB	Accom car park	" "	
17/12/24 3.30pm	0089_QC311_241217	(RB) FB TB	CR shovel	" "	

Only 1 dipper used 12/12

QA Blank Sample Register Form

Date/Time	QA Blank Sample ID	Type (circle)	Notes *(Rinsate taken off, field blank location etc.)*	Containers	Initials
17/12/24 3.30pm	0089_QC312_241217	(RB) FB TB	Taken off dipper	2x2	[redacted]
17/12/24 3.30pm	0089_QC313_241217	(RB) FB TB	Taken off shovel	2x2	
18/12/24 3pm	0089_QC314_241218	(RB) FB TB	Taken off shovel (at beach MW124)	2x2	
18/12/24 3pm	0089_QC315_241218	(RB) FB TB	Taken off shovel	2x2	
18/12/24 3pm	0089_QC405_241218	RB (FB) TB	Canteen carpark	2x2	
19/12/24 1:30	0089_QC406_241219	RB (FB) TB	At car	2x2	
19/12/24 1:30	0089_QC316_241219	(RB) FB TB	Taken off shovel	2x2	
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			

QA Blank Sample Register Form

Date/Time	QA Blank Sample ID	Type (circle)	Notes *(Rinsate taken off, field blank location etc.)*	Containers	Initials
17/12/24 3.30pm	0089_QC312_241217	(RB) FB TB	Taken off dipper	2x2	[redacted]
17/12/24 3.30pm	0089_QC313_241217	(RB) FB TB	Taken off shovel	2x2	
18/12/24 3pm	0089_QC314_241218	(RB) FB TB	Taken off shovel (at beach MW124)	2x2	
18/12/24 3pm	0089_QC315_241218	(RB) FB TB	Taken off shovel	2x2	
18/12/24 3pm	0089_QC405_241218	RB (FB) TB	Canteen carpark	2x2	
19/12/24 1:30	0089_QC406_241219	RB (FB) TB	AE car	2x2	
19/12/24 1:30	0089_QC316_241219	(RB) FB TB	Taken off shovel	2x2	
14/01/25 10:10	0089_QC501_250114	RB FB (TB)	could not find 6CTBW1688 previous TB	2 pfas	
14/01/25 3:00	0089_QC407_250114	RB (FB) TB	near ~~[illegible]~~ MW147	" "	
14/01/25 3:00	0089_QC317_250114	(RB) FB TB	off dipper	" "	
15/01/25 12:10	0089_QC408_250115	RB (FB) TB	near MW141	"	
"	0089_QC318_250115	(RB) FB TB	off dipper	"	
		RB FB TB			
		RB FB TB			
		RB FB TB			

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The Power of Commitment

Quarterly Sampling Event – March 2025

PFAS OMP – HMAS Stirling

Department of Defence

27 May 2026

→ **The Power of Commitment**



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GHD Pty Ltd | ABN 39 008 488 373
Contact: Tom Phillips, Technical Director
999 Hay Street, Level 10
Perth, Western Australia 6000, Australia
T +61 8 6222 8222 | **F** +61 8 6222 8555 | **E** permail@ghd.com | **ghd.com**

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List of acronyms

Acronym	Term
ADWG	Australian Drinking Water Guideline
AFFF	Aqueous film-forming foam
AHD	Australian Height Datum
ANZG	Australian and New Zealand Guidelines
AS/NZS	Australian Standards/ New Zealand Standards
AVCAT	Aviation Carrier Turbine
CoC	Chain of Custody
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
DO	Dissolved oxygen
DQI	Data Quality Indicator
DQO	Data Quality Objective
DWER	Department of Water and Environmental Regulation
EC	Electrical Conductivity
EPA	Environmental Protection Authority
ERA	Ecological Risk Assessment
HDPE	High-density Polyethylene
HEPA	Heads of EPA
HMAS	His Majesty's Australian Ship
LC	Lead Consultant
LCS	Laboratory control sample
LOR	Limit of reporting
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEMP	National Environmental Management Plan 3.0
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation reduction potential
PFAS	Per- and poly-fluoroalkyl substances
PFASIM	PFAS Investigation and Management
PFBS	Perfluorobutane sulfonic acid
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan

Acronym	Term
QA/QC	Quality Assurance and Quality Control
RPD	Relative percentage difference
SAQP	Sampling Analysis and Quality Plan
SD	Sediment
SW	Surface Water
TDS	Total Dissolved Solids
WA	Western Australia
WWTP	Wastewater Treatment Plan

List of units

Units	Term
%	Percentage
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per Centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
m bgl	Metres below ground level
mg/kg	Milligrams per Kilogram
mm	Millimetre
mV	Millivolt
pH	Potential of Hydrogen

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1. Introduction

GHD Pty Ltd (GHD) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at His Majesty's Australian Ship (HMAS) Stirling (hereafter referred to as the 'base') in Western Australia (WA). The location of the base, the surrounding PFAS Management Area and key base features are shown in Figure 1 and Figure 2, Appendix A.

The OMP (Defence, 2019) and its associated Sampling Analysis and Quality Plan (SAQP) (GHD, 2025) outlines the rationale and scope for the monitoring of concentrations and extent of PFAS in groundwater, porewater, surface water, and sediment at the base and within the Management Area. Monitoring is undertaken on a quarterly basis including March, June, September and December sampling events. This Sampling Event Factual Report documents the results of the March 2025 Sampling Event.

1.1 Objectives

The key objectives of the OMP are to evaluate:

– The spatial and temporal (including seasonal) nature and extent of PFAS impact in the environment associated with site sources of PFAS derived from legacy use of aqueous film-forming foam (AFFF);
– Changes to the Conceptual Site Model (CSM), which describes the current understanding of PFAS sources, transport pathways and receptors;
– Whether current risks to human and ecological receptors require review;
– The influence that risk management activities at the base, as outlined in the PFAS Management Area Plan (PMAP) (Defence, 2019) have had on PFAS in the environment; and
– Whether any identified changes trigger an action and/or review.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PMAP.

1.2 Purpose of this report

This Sampling Event Factual Report has been prepared to document the results of the March 2025 sampling event, specifically highlighting first-time detections and/or new exceedances of relevant guideline values for perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorooctanoic acid (PFOA) and perfluorobutane sulfonic acid (PFBS).

An Ongoing Monitoring Report (OMR) will be prepared following the completion of each 12-month sampling period or as otherwise agreed.

This report has been prepared with reference to the Defence *Ongoing Monitoring Program Reporting Guidance* issued in February 2024 (Defence, 2024).

2. Scope of work

The scope of work was completed with reference to the OMP SAQP (GHD, 2025), as follows:

– Organise fieldwork and obtain approval for base access to monitoring locations.
– Collection of samples and water quality parameters from nominated locations (refer to Section 2.1).
– Collect and analyse samples for quality assurance and quality control (QA/QC).
– Analysis of samples for PFAS at the limit of reporting (LOR) nominated in the SAQP.
– Data management of the OMP field and laboratory data in the Defence ESdat database.
– Preparation of this Sampling Event Factual Report for the March 2025 sampling event.

2.1 Sampling locations

2.1.1 Groundwater

The groundwater monitoring locations are presented in Table 1 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 1 OMP groundwater monitoring locations

Area	Monitoring Well ID
Fire Training Area	MW109, MW112, MW500, MW120, MW121, MW123, MW124, MW125, MW126, MW127 and MW128
Demolition Ground	MW139, MW141, MW142, MW147 and MW149
WWTP	MW158, MW161, MW166, MW171, MW173, MW193, MW195D, MW195S, MW196, MW199, MW200, MW202, MW203 and MW468
Helicopter Support Facility	MW214, MW215, MW216, MW217, MW220, MW224, MW225, MW226, MW227, MW228 and MW282
Accommodation Area	MW288 and MW289
Dredged Sediments	MW268 and MW269
AVCAT Storage and Fuel Farm	MW233, MW236, MW238, MW239, MW240, MW242, MW243, MW245, MW249, MW496 and MW516
Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage	MW010, MW255, MW256, MW257, MW258, MW259 and MW553

2.1.2 Porewater, surface water and sediment monitoring locations

The porewater, surface water and sediment locations are presented in Table 2 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 2 OMP porewaters, surface water and sediment monitoring locations

Area	Surface water sampling Location ID	Sediment Sampling Location ID	Porewater Sampling Location ID
Fire Training Areas	SW130, SW132, SW134	SD335, SD340, SD341, SD362, SD363, SD364	PW335, PW340, PW341, PW362, PW363, PW364
Demolition Ground	SW150, SW152, SW154, SW156	SD329, SD330, SD331, SD356, SD357, SD358	PW329, PW330, PW331, PW356, PW357, PW358
WWTP	SW305, SW353, SW370, SW371, SW372, SW373, SW382, SW383, SW384	SD304, SD345, SD350, SD351, SD352, SD367, SD368, SD369, SD380, SD381, SD401	PW304, PW345, PW350, PW351, PW352, PW367, PW368, PW369, PW380, PW381, PW401
Helicopter Support Facility	SW309, SW310, SW311, SW406, SW408, SW410, SW412, SW414, SW416	SD306, SD307, SD308, SD314, SD315, SD316, SD405, SD407, SD409, SD411, SD413, SD415	PW306, PW307, PW308, PW314, PW315, PW316, PW405, PW407, PW409, PW411, PW413, PW415
Accommodation Area	-	SD346	PW346
Dredged Sediments	SW317, SW318, SW319	SD374, SD375, SD378	PW374, PW375, PW378

2.2 SAQP deviations

The March 2025 sampling event was completed with reference to the OMP SAQP (GHD, 2025), GHD's health and safety protocols and GHD's standard operating procedures for field work, which have been developed in accordance with WA contaminated land guidance. Deviations from the OMP SAQP are summarised in Table 3.

Table 3 Summary of derivations from the OMP SAQP

Location	Deviation	Comments
MW196	Not sampled	Access to this monitoring location at in the WWTP source area requires a gate to be opened by base personnel. Base personnel were unavailable to open the gate at the time of the sampling event and therefore, the well was not sampled. **Minimal impact** – the range of PFAS concentrations at this well is well understood from historical data and are typically below the LOR. Base-wide groundwater contours were able to be inferred based on the wider monitoring network. Hydraulically down-gradient groundwater water location MW468 (i.e., closer to the receiving environment) was able to be sampled to provide an assessment of risks to the marine environment which is the primary sensitive receptor for the base.
MW109, MW268, MW233	Field data not recorded	Depth to groundwater and physicochemical parameters were mistakenly not recorded at these locations. **Minimal impact** – PFAS concentrations were able to be recorded. Gauging of nearby monitoring wells (i.e., those associated with the respective source areas that the monitoring wells are within) provides a broad understanding of the groundwater elevation and physicochemical profile of the areas.
MW239	Not sampled	The well, located in the AVCAT Storage and Fuel Farm source area, was found to be partially buried and the casing blocked with sand at the time of the sampling event. It was therefore unable to be sampled. **Minimal impact** – the range of PFAS concentrations at this well is well understood from historical data. Base-wide groundwater contours were able to be inferred based on the wider monitoring network. Hydraulically down-gradient groundwater water locations (i.e., closer to the receiving environment) including MW242, MW245, MW249. MW496 and MW516) were able to be sampled to provide an assessment of risks to the marine environment which is the primary sensitive receptor for the base.
MW282	Incorrect well sampled	Field work error – MW539 was incorrectly sampled instead of MW282. **Minimal impact -** the range of PFAS concentrations at MW282 is well understood from historical data and has not significantly fluctuated since 2019. The well was

Location	Deviation	Comments
		able to be sampled as part of the subsequent June 2025 sampling event (reported on separately). Hydraulically down-gradient porewater and surface water locations in the receiving environment were able to be sampled to provide an assessment of risks to the marine environment which is the primary sensitive receptor for the base. MW539 is immediately adjacent to MW282 though is screened in a deeper potion of the aquifer (i.e., from 16.5 to 20.5 m bgl, whereas MW282 is screened from 4.5 to 7.5 m bgl), so provides an additional datapoint representative of PFAS impacts in the deeper portion of the aquifer.
All locations	Daily “bump tests” not undertaken	The water quality meter used to record physicochemical parameters of water samples during the sampling event was calibrated by the supplier prior to the sampling event (refer to Appendix D) though daily “bump tests” to monitor calibration throughout the sampling event were not undertaken. **Minimal impact** – recorded physicochemical parameters were consistent with the historical dataset.

3. Methodology

3.1 Sampling methodology

The methodology for the March 2025 sampling event was completed with reference to the OMP SAQP (GHD, 2025) as outlined in the following sections.

3.1.1 Groundwater sampling

The groundwater sampling methodology is outlined in Table 4.

Table 4 Groundwater monitoring wells – sampling method

Activity	Details
Well Gauging	Monitoring wells were first gauged to allow subsequent correction of groundwater levels relative to Australian Height Datum (AHD) prior to groundwater sample collection. All depth measurements referenced the top of casing (TOC) of the monitoring well as an established datum.
Groundwater Physicochemical Parameters	Groundwater physiochemical parameters were recorded via a water quality meter from HydraSleeves® or purged water via peristaltic pump. The following parameters were recorded: – pH. – electrical conductivity (EC). – oxidation reduction potential (ORP). – Dissolved oxygen (DO). – Temperature. – Total Dissolved Solids (TDS). The water quality meter was calibrated by the equipment supplier. General observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens) were also recorded.
Deployment and Retrieval of HydraSleeves®	In compliance with section 18 of the Heads of EPA National Environmental Management Plan 3.0 (HEPA NEMP), groundwater samples were collected using bore-dedicated polypropylene HydraSleeves®. The HydraSleeves® were installed and left in place for a minimum of 24 hours prior to retrieving for sample collection. Where monitoring well construction details were available, the HydraSleeves® were positioned to target the approximate mid-section of the water column beneath the screened interval. Where construction details were not available, the HydraSleeves® were placed approximately 1 m from the base of the monitoring well (where sufficient depth of water was present within the well column). Samples were collected via continuous pull method at a rate allowing the water to pass through the check value into the sample sleeve. Samples were discharged immediately (to minimise changes in chemistry) via discharge tube. Following sampling, new HydraSleeves® were deployed in preparation for the next OMP monitoring event using the same string for consistency (same depth of sampling i.e. within screen depth). In the event that a monitoring well was found to contain a HydraSleeve® that belonged to another program, the HydraSleeve® was used for sampling (if it was in satisfactory condition) as outlined above, then replaced with a new HydraSleeve®. This did not occur during the March 2025 sampling event.
Alternative sampling methodology (low flow micro-purge)	In the event the water column wasn't sufficient to fill the HydraSleeve®, the HydraSleeve® was deployed with a top weight to compress the HydraSleeve® and left in wells for a minimum of 24 hours to allow restabilisation. If the HydraSleeve® was then retrieved with no or insufficient sample volume, low flow sampling occurred via a low flow micro-purge pump using the following methodology: – Post-gauging, each monitoring well was purged using a low flow micro-purge pump fitted with bore-dedicated inert silicone and High-density Polyethylene (HDPE) tubing. The upper end of the tubing was connected to the flow cell of a water quality meter positioned to prevent entrapment of oxygen.

Activity	Details
	– The pump intake was placed approximately 0.5 m below the top of screen (or at least 0.5 m below the top of the water column) to ensure collection of samples representative of groundwater quality beneath the base. – Measurement of water quality parameters was undertaken immediately after the flow cell was full and continued thereafter at two to five-minute intervals during the purging process. – Purging was undertaken until stabilisation of field parameters was achieved after which the well was subsequently sampled. Parameters were considered stable when they are within the following range (where practicable within the time constraints of the program): • Temperature: +/- 0.2 °C* • pH: +/- 0.05 • EC: +/- 3% • DO: +/- 10% • ORP: +/- 10 mV – Representative groundwater samples were collected directly from the HDPE tubing into laboratory supplied sample containers. Use of the alternative sampling methodology was not required during the March 2025 sampling event **Note: The OMP SAQP (GHD, 2025) erroneously states variation in temperature should be +/- 0.02 °C rather than +/- 0.2 °C*
Field Records	Field records included the following information: – Gauging data – Sampling time and date. – Weather conditions. – Sample collection method. Where a HydraSleeve® is used for sample collection, the target interval depth was recorded. – Stabilised field parameters. – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. – Calibration records. – Well gauging records. All sample documentation including field notes, reporting records, Chain of Custody (CoC) and equipment calibration certificates and procedures were retained within project files.
Decontamination procedure	Dedicated HydraSleeves® or HDPE tubing (in the event that a HydraSleeve® was not used) was used at each groundwater bore, thus removing the need for decontamination of these items. Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.
Sample identification, preservation transport and holding times	Each sample bottle was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were collected directly in laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under CoC documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998).

3.1.2 Porewater sampling methodology

The methodology for porewater sampling is outlined in Table 5.

Table 5 Porewater sampling methodology

Item	Details
Porewater Sample Collection	Sampling was conducted using a reusable stainless steel piezometer which has a screened zone consisting of a series of very fine interlaced machined slots to allow porewater to enter the sampler. The sampling end of the piezometer was inserted into the surficial marine sediments to approximately 0.5 m below the surface. Once the target sample depth was reached, porewater was collected using a peristaltic pump fitted with bore-dedicated silicone and HDPE tubing into laboratory supplied bottles. Field parameters were recorded (pH, EC, TDS, ORP, DO and temperature). Purging prior to sampling was not considered necessary due to the highly transmissive nature of the intertidal zone sediments. Field EC and/or TDS readings were used to assess whether the porewater sample is representative of discharging groundwater and not purely seawater.
Field Records	Field records included the following information: – Sampling time and date. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. All sample documentation including field notes, reporting records, COC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. Tubing was replaced at each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.1.3 Surface water sampling methodology

The methodology for the surface water monitoring is detailed in Table 6.

Table 6 Surface Water Monitoring

Item	Details
Field parameters	Surface water physiochemical parameters (i.e. pH, EC, ORP, DO, and temperature) were recorded at the time of sampling using a pre-calibrated water quality meter. Field observations such as odours or sheen presence were also recorded on field sampling sheets.
Sampling Method	Where the embankment of the water body was stable and the water body could be safely accessed, surface water samples were collected by hand, directly into the laboratory supplied sample containers using a ‘grab’ (manual) sample method. Where depth permitted, the sample container was positioned at least 10 cm below the surface water level and above the sediment bed and oriented with the capped opening facing downwards to avoid the collection of surface films. Once in position, the container cap was removed to allow sample collection. Where sampling points cannot be safely accessed, surface water samples were collected using a long-handled sampler and decanted into the laboratory supplied sample containers. Samples were collected with reference to Australian/New Zealand Standards (AS/NZS 5667.1:1998) Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.
Sample Collection	Water samples were placed directly into appropriately labelled, laboratory supplied sample bottles and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation.

Item	Details
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions), then double rinsed with laboratory supplied rinsate water before the sample collection.
Sample identification, preservation, transport and holding times.	Each sample container was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were contained in laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998 as appropriate).
Field Records	Field records included the following information: – Sampling time, date and name of the sampler. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g. turbidity, colour etc.) or obvious indicators of contamination (e.g. sheens). – Depth of water body, flow rate and sample depth. – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. – Calibration records. All sample documentation including field notes, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.

3.1.4 Sediment sampling methodology

The methodology for sediment sampling is detailed in Table 7.

Table 7 Sediment Investigation Methodology

Item	Details
Sample Collection	Sediment samples were collected at the sediment/water interface using hand tools (e.g. trowel, hand auger, PVC pipe etc.) with samples placed directly into appropriately labelled, laboratory supplied sample containers and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation. At each sampling location, the sediment sample will be visually assessed and observations (including physical description) recorded on field data sheets.
Field Records	Field records included the following information: – Sampling time, date and name of the sampler. – Sample description. – Weather conditions. – Sample collection method. – Observations regarding sediment quality (e.g., colour, grain size etc.) or obvious indicators of contamination (e.g., staining). – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. All sample documentation including field notebooks, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.2 Quality assurance and quality control

Quality assurance (QA) involves all the actions, procedures, checks and decisions, undertaken to ensure the representativeness and integrity of samples and accuracy and reliability of analytical results (NEPM, 2013). Quality control (QC) involves protocols to monitor and measure the effectiveness of QA procedures.

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (GHD, 2025). A review of the field and laboratory QA/QC performance from the investigation is presented in the QA/QC data validation report, Appendix B. Key findings of the data validation report include:

– The majority of the calculated relative percentage difference (RPD) in concentrations for each duplicate pair, as presented in the tables in Appendix B were within acceptable limits. In most cases, RPD values greater than the acceptance criterion of 30% are considered reflective of the proximity of the reported concentrations to the LOR (i.e., less than 10 times the LOR) or are associated with concentrations that are within the same order of magnitude. On this basis, the RPDs greater than 30% are considered to have minimal impact on the data quality.
– Field blank analytical results were less than the LOR in all cases.
– Rinsate blank analytical results were less than the LOR in all cases.

Overall, the QA/QC assessment concluded that the collected data is considered appropriate for the work undertaken and are considered usable for the purpose of this assessment.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements (Defence, 2021).

4. Guideline values

A summary of the current PFAS guideline values for groundwater, porewater and surface water considered relevant to the base is presented as Table 8. The guideline values are largely based upon:

– The PFAS NEMP (HEPA, 2025) which presents a consolidated set of health- and ecology-based Australian PFAS assessment levels for soil and water that are derived from various guidelines and publications. It is noted that the aquatic ecosystems guideline value for PFOS is lower than the standard LOR that was applied at the porewater and surface water monitoring locations.

– The National Health and Medical Research Council (NHMRC) Australian Drinking Water Guidelines (ADWGs) for PFAS that were published on 25 June 2025 (NHMRC, 2025), after the March 2025 sampling event. It is noted that the ADWG value for PFOS is less than the standard PFAS LOR that was applied at the groundwater monitoring locations.

– The Australian and New Zealand Guidelines (ANZG) for PFOS in freshwater, which were released in March 2026, after the sampling event (ANZG, 2026). In relation to this guideline:

  - The relevant freshwater PFOS value has applied for the marine water data in the Management Area on the basis outlined in the PFAS NEMP whereby freshwater values are nominated as interim marine values in the absence of sufficient data to derive values specific to marine environments.
  - The screening threshold (i.e., 0.0005 µg/L) for triggering assessment of PFOS concentrations in biota has not been considered on the basis that an ERA (RPS, 2018b) has been completed that included measurement of PFAS concentrations in lower trophic level aquatic biota, estimation of PFOS concentrations in fish and shorebirds, and food web modelling to understand risks posed to higher order consumers through bioaccumulation.

It is noted that there is currently no Australian regulatory endorsed screening criteria for risk posed to ecology or human health by PFAS in sediment.

Table 8 Relevant PFAS assessment guideline values

Exposure scenario	Source	Assessment guideline value (µg/L)				
		PFOS	PFHxS	PFOS+ PFHxS	PFOA	PFBS
Groundwater						
Health: potable use of groundwater	NHMRC (2025)	0.008	0.03	-	0.2	1
Porewater and surface water						
Health: Recreational water use	PFAS NEMP	2	2	2	10	-
Ecology: aquatic ecosystems (99% species protection)	PFAS NEMP / ANZG (2026)	0.02	-	-	19	-

It is important to note that an Ecological Risk Assessment (ERA) (RPS, 2018b) has been completed for the base to assess the potential risks to the environment associated with presence of PFAS within the Management Area. While the OMP evaluates PFAS concentration data with reference to the ecology-based screening criteria identified in Table 8, decision-making concerning changes to risks posed to ecological receptors within the Management Area should continue to be made with reference to the ERA conclusions and the dataset that informed it.

5. Field observations and results

5.1 General observations

The sampling event was completed over ten days between 10 and 21 March 2025. The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the sampling event are summarised in Table 9.

Table 9 General Observations

Items	Observations
Weather Conditions	During the sampling event the weather was mostly dry and warm, with daily maximum temperatures ranging between 22.9 ˚C (19 March) and 30.5 ˚C (17 March). 7.6 mm and 0.2 mm of rainfall were recorded on 14 and 15 March respectively. No other rainfall was recorded during the sampling event. Information obtained from Garden Island HSF (Station ID 009256) (Bureau of Meteorology, 2025).
Estate Management Works, Training Activities and/or Construction Works.	Construction of a new building was underway to the west of the AVCAT Storage Facility source area. GHD understands these works were unrelated to the PMAP.

5.2 Field observations and measurements

The observations and measurements recorded during the field activities for the March 2025 quarterly sampling event are summarised in Table 10. Field notes are presented in Appendix F.

Table 10 Summary of field observations and measurements

Item	Description
Access and sample collection	Most sampling locations were accessible and able to be sampled. Some groundwater locations were unable to be sampled due to being blocked or inaccessible (refer to Table 3). With reference to Table C1 in Appendix C, the measured well depth in some monitoring wells (i.e., MW121, MW123, MW193, MW195D, MW255, MW256, MW257, MW289, MW468, MW500), when compared to the constructed well depth, suggests sediment may have accumulated within the monitoring wells. The wells were still able to be sampled. Monitoring well MW202 was missing its cap though was still able to be sampled.
Water and sediment observations	Groundwater samples were predominantly colourless, pale brown, pale yellow, or pale grey, with low to moderate sediment load. No sheens or organic films were noted at any of the groundwater locations. A slight to moderate organic or sulfidic odour was noted at most locations. Hydrocarbon odours were noted at MW553, MW240, MW249, MW496, MW516, MW236, MW214, MW220, MW224, MW539, MW112, MW121 and MW500. Porewater samples were predominately colourless with no or low sediment load and no sheen. Most locations were noted to have no odour or a slight organic odour. No sheens or organic films were observed at any locations. Surface water samples were predominantly clear and colourless with low turbidity, no sediment load and no odour. Locations where large seaweed deposits were noted on the beach had low to medium turbidity and a low sediment load. Sediment was mostly moist to saturated, pale yellow to light brown/grey, fine to medium grained beach sand. Locations with large seaweed deposits on the beach were found to have organic matter (i.e., decaying seaweed) present within the sediment samples. A slight organic odour was notified at these locations.
Groundwater flow direction	The calculated groundwater elevations (m AHD) are presented in Table C1 in Appendix C. Groundwater elevations across the base at the time of the sampling event ranged from -0.652 (MW269) to 1.366 m AHD (MW255), which is comparable with the historical range. Inferred groundwater contours are presented in Figure 3 to Figure 7 in Appendix A. Groundwater flow direction across the base at the time of the sampling event is summarised

Item	Description
	below. Generally, groundwater flow was towards the coast, with inward flow and mounding in some areas, likely as a result of tidal influence, which is consistent with previous findings. **Fire Training Area** Generally east south-easterly towards the Cockburn Sound. Some mounding is evident surrounding MW121 in the southern portion of the source area. **Demolition Ground** Westerly (i.e., inward) groundwater flow, possibly associated with tidal influence from the adjoining Cockburn Sound. **Wastewater Treatment Plant** Generally north-easterly flow towards the Cockburn Sound. **Helicopter Support Facility** Generally a radial flow extending outward from MW127 and MW126 towards the Cockburn Sound and the southern coast of Garden Island. **Main base area** Generally south-westerly towards the Cockburn Sound.
Geochemical parameters	Water geochemical parameters were measured during the collection of water samples. The readings are presented in Tables C1, C2 and C3 in Appendix C and are summarised below: **Groundwater** – Temperature ranged from 20.3 ˚C (MW216) to 30.5 ˚C (MW149) – pH ranged from 7.02 (MW126) to 8 (MW255) indicating neutral to alkaline conditions. – EC ranged from 374.9 µS/cm (MW255) to 44,826 µS/cm (MW125) indicating fresh to highly saline conditions. – TDS ranged from 243.7 mg/L (MW255) to 29,131 mg/L (MW125) indicating fresh to highly saline conditions. – DO ranged from 0.37 mg/L (MW199) to 6.71 mg/L (MW217) indicating poor to moderately oxygenated conditions. – ORP ranged from -280.1 mV (MW126) to 100.3 mV (MW166) indicating both reducing and oxidising conditions. **Porewater** – Temperature ranged from 22.9 ˚C (PW374) to 30.4 ˚C (PW304). – pH ranged from 7.06 (PW346) to 8.17 (PW415) indicating neutral to alkaline conditions. – EC ranged from 4,180 µS/cm (PW304) to 63,354.0 µS/cm (PW357) indicating moderately saline to highly saline conditions. – TDS ranged from 799 mg/L (PW368) to 41,152 mg/L (PW357) indicating marginally saline to highly saline conditions. – DO ranged from 0.88 mg/L (PW346) to 4.99 mg/L (PW352) indicating very low to moderately oxygenated conditions. The DO recorded at PW378 (25.4 mg/L) is considered erroneous. – Redox ranged from -158.8 mV (PW346) to 121.5 mV (PW350) indicating both reducing and oxidising conditions. **Surface water** – Temperature ranged from 17.5 ˚C (SW319) to 28.8 ˚C (SW410). – pH ranged from 7.38 (SW406) to 8.88 (SW150) indicating neutral to basic conditions. – EC ranged from 29,658 µS/cm (SW309) to 55,919 µS/cm (SW372) indicating highly saline conditions. – TDS ranged from 18,633 mg/L (SW410) to 36,400 mg/L (SW373) indicating highly saline conditions. – Dissolved oxygen ranged from 0.46 mg/L (SW060) to 9.26 mg/L (SW047) indicating poor to well oxygenated conditions. – Redox ranged from -469.5 mV (SW318) to 346.2 (SW371) mV indicating both reducing and oxidising conditions.

5.3 Summary of analytical results

The PFAS analytical results for groundwater, surface water, sediment and porewater from this sampling event are presented in Table C4 to C7 in Appendix C and are summarised in Figure 8 to Figure 13 in Appendix A.

5.3.1 Groundwater

60 primary groundwater samples were analysed for PFAS, with:

– 27 samples reporting **PFBS** concentrations above the LOR. Three of these were above the ADWG value (1 µg/L) namely, MW256 (1.77 µg/L), MW258 (1.13 µg/L) and MW171 (1.37 µg/L).
– 36 samples reporting **PFOS** concentrations above the LOR. All of these reported concentrations above the ADWG value (0.008 µg/L), noting that the LOR that was applied is greater than the ADWG value. 24 samples reported PFOS concentrations below the LOR (i.e., <0.01) and it therefore cannot be determined whether PFOS concentrations in these samples were above or below the ADWG value.
– 40 samples reporting **PFHxS** concentrations above the LOR. Of these, 35 samples reported concentrations greater than the ADWG value (0.03 µg/L).
– 27 samples reporting **PFOA** concentrations above the LOR. Of these, 11 samples reported concentrations greater than the ADWG value (0.2 µg/L).

The additional monitoring well sampled, MW539, located in the Helicopter Support Facility and targeting a deeper portion of the aquifer (i.e., screened from 16.5 to 20.5 m bgl), reported PFAS concentrations above the LOR including PFBS (0.17 µg/L), PFOS (1.3 µg/L), PFHxS (0.84 µg/L) and PFOA (0.1 µg/L). The PFOS and PFHxS concentrations exceed the ADWG values (0.008 and 0.03 µg/L respectively).

A summary of groundwater locations where concentrations were greater than those previously reported (i.e., first-time detections or new maximums) is presented as Table 11.

Table 11 Deviations from historical dataset – groundwater analytical results

Item	Sample location	PFBS (µg/L)		PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		March 2025	Previous max.	March 2025	Previous max.	March 2025	Previous max.	March 2025	Previous max.
First-time detection	MW539^	0.17	-	0.84	-	0.1	-	1.3	-
New historical maximum	MW124	0.33*	0.12	No new maximum		No new maximum		No new maximum	
	MW125	0.31	0.23	1.14	0.98	No new maximum		No new maximum	
	MW127	No new maximum		0.03	0.02	No new maximum		0.02*	0.007
	MW257	No new maximum		No new maximum		No new maximum		0.41	0.36
	MW539^	0.17	-	0.84	-	0.1	-	1.3	-

*Split duplicate sample result

^First-time detections and new maximum concentrations reported at MW539 reflect the well having been sampled for the first-time as part of the OMP in the March 2025 sampling event.

5.3.2 Porewater

In summary, 38 primary porewater samples were analysed for PFAS, with:

– Seven samples reporting a **PFOS** concentration above the LOR. Four of these reported concentrations equal to the aquatic ecosystems guideline value (0.02 µg/L) and another four (PW304, PW346, PW368 and PW369) reported concentrations exceeding the value.
– Four samples reporting a **PFHxS** concentration above the LOR. All reported concentrations were less than the recreational guideline value (2 µg/L).
– Nine samples reporting a **PFOS+PFHxS** concentration above the LOR. All reported concentrations were less than the recreational guideline value (2 µg/L).

– One sample (PW405) reporting a **PFOA** concentration above the LOR. The reported concentration was less than the aquatic ecosystems guideline value (19 µg/L) and the recreational guideline value (10 µg/L).

A summary of porewater locations where concentrations were greater than those previously reported (i.e., first-time detections or new maximums) is presented as Table 12.

Table 12 Deviations from historical dataset – porewater monitoring locations

Item	Sample location	PFOS		PFHxS		PFOS+PFHxS		PFOA	
		March 2025	Previous max.	March 2025	Previous max.	March 2025	Previous max.	March 2025	Previous max.
First-time detections	PW375	No first-time detection		0.02	<0.01	No first-time detection		No first-time detection	
New historical maximum	PW375	No new maximum		0.02	<0.01	No new maximum		No new maximum	
	PW405	No new maximum		0.16	0.06	0.16	0.06	0.08	0.01

5.3.3 Surface water

34 primary surface water samples were analysed for PFAS. All PFAS were reported at concentrations below the LOR and therefore, there were no first-time detections or new maximum PFAS concentrations in surface water samples.

5.3.4 Sediment

36 primary sediment samples were analysed for PFAS compounds, with:

– No samples reporting a **PFBS** concentration above the LOR.
– Five samples reporting a **PFOS** concentration above the LOR. This included SD304 and SD367 to SD369, all associated with the WWTP area, with concentrations ranging from 0.0002 to 0.0013 mg/kg, and SD346, associated with the accommodation area, with a concentration of 0.0029 mg/kg.
– Five samples reporting a **PFHxS+PFOS** concentration above the LOR, with concentrations equal to the PFOS concentrations outlined above (i.e., all samples comprised PFOS only).
– No samples reporting a **PFHxS** concentration above the LOR.
– No samples reporting a **PFOA** concentration above the LOR.

There were no first-time detections or new maximum PFAS concentrations in sediment samples.

6. Summary

The findings and recommended actions from the March 2025 sampling event are summarised in Table 13.

Table 13 Summary of sampling event

Item	Comment	Recommended Action
Access to sampling locations	All locations were accessible apart from MW196 at the WWTP (refer to Section 2.2).	In all cases, hydraulically down-gradient locations (i.e., closer to the receiving environment) were able to be sampled to provide an assessment of risks to the marine environment which is the primary sensitive receptor for the base. Subsequent monitoring events will seek to obtain access to MW196 via base personnel. Access was again not possible at the March 2025 event though the well was sampled at the September 2025 event (reported on separately). Replacement/repair of MW239 and wells that accumulated sediment is not recommended as a matter of priority at this time. The forthcoming OMP Revision will review the value of the monitoring well in the context of the OMP objectives and make a recommendation for repair, re-installation or otherwise. A new well cap shall be fitted to MW202 during a future sampling event.
Location unable to be sampled, inaccessible or dry	With reference to Section 2.2, MW239 in the AVCAT Storage and Fuel Farm was blocked and unable to be sampled. MW282 was not sampled due to field error (with adjacent deeper monitoring well MW539 incorrectly sampled instead). As noted in Section 5.1, the measured well depth in some monitoring wells suggests sediment may have accumulated within the monitoring wells. The wells were still able to be sampled and the recorded PFAS concentrations were within the historical range. Monitoring well MW202 was missing its cap though was still able to be sampled.	
Analytical results	60 groundwater samples, 38 porewater samples, 34 surface water samples and 36 sediment samples were analysed. Concentrations recorded were generally consistent with historical data.	Locations will be sampled again during the next OMP sampling event. Data will be evaluated further within the context of the OMP objectives (refer to Section 1.1) as part of the forthcoming OMR. The requirement to apply a non-standard LOR at selected monitoring locations to inform a suitable risk assessment will be considered as part of the OMR and forthcoming OMP Revision process.
First-time detections of PFBS, PFHxS, PFOA and/or PFOS	First-time detections were identified at groundwater monitoring location MW539, which was sampled for the first-time as part of the OMP during the March 2025 sampling event, and porewater monitoring location PW375, which is associated with the Dredged Sediments source area. The detected concentration at PW375 was only marginally greater than the LOR (i.e., a PFHxS concentration of 0.02 µg/L).	
New historical maximum concentrations	New historical maximum concentrations were reported at groundwater monitoring locations MW124, MW125, MW127 (in the Fire Training Area) and MW257 (in the Flammable/Hazardous Goods and Waste Storage source area). New historical maximum concentrations were also identified at groundwater monitoring location MW539, reflecting the well having been sampled for the first-time as part of the OMP during the March 2025 sampling event.	
New exceedance of human health guideline value	Numerous groundwater monitoring locations recorded PFAS concentrations in excess of the revised ADWGs that were released in June 2025, after the sampling event. It is noted that the standard LOR that was applied (i.e., <0.01 µg/L) exceeds the revised ADWG for PFOS (0.008 µg/L). GHD understands that groundwater is not abstracted on the base for potable or non-potable use. Potable	

	water for Garden Island is supplied from the Rockingham town water supply (GHD, 2025).	
New exceedance of adopted guideline values?	No surface water or porewater locations reported new exceedances of the adopted ecological guideline values for PFOS and/or PFOA.	

7. References

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8. Limitations

This report has been prepared by GHD for Department of Defence and may only be used and relied on by Department of Defence for the purpose agreed between GHD and Department of Defence as set out in Section 1.2 of this report.

GHD otherwise disclaims responsibility to any person other than Department of Defence arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

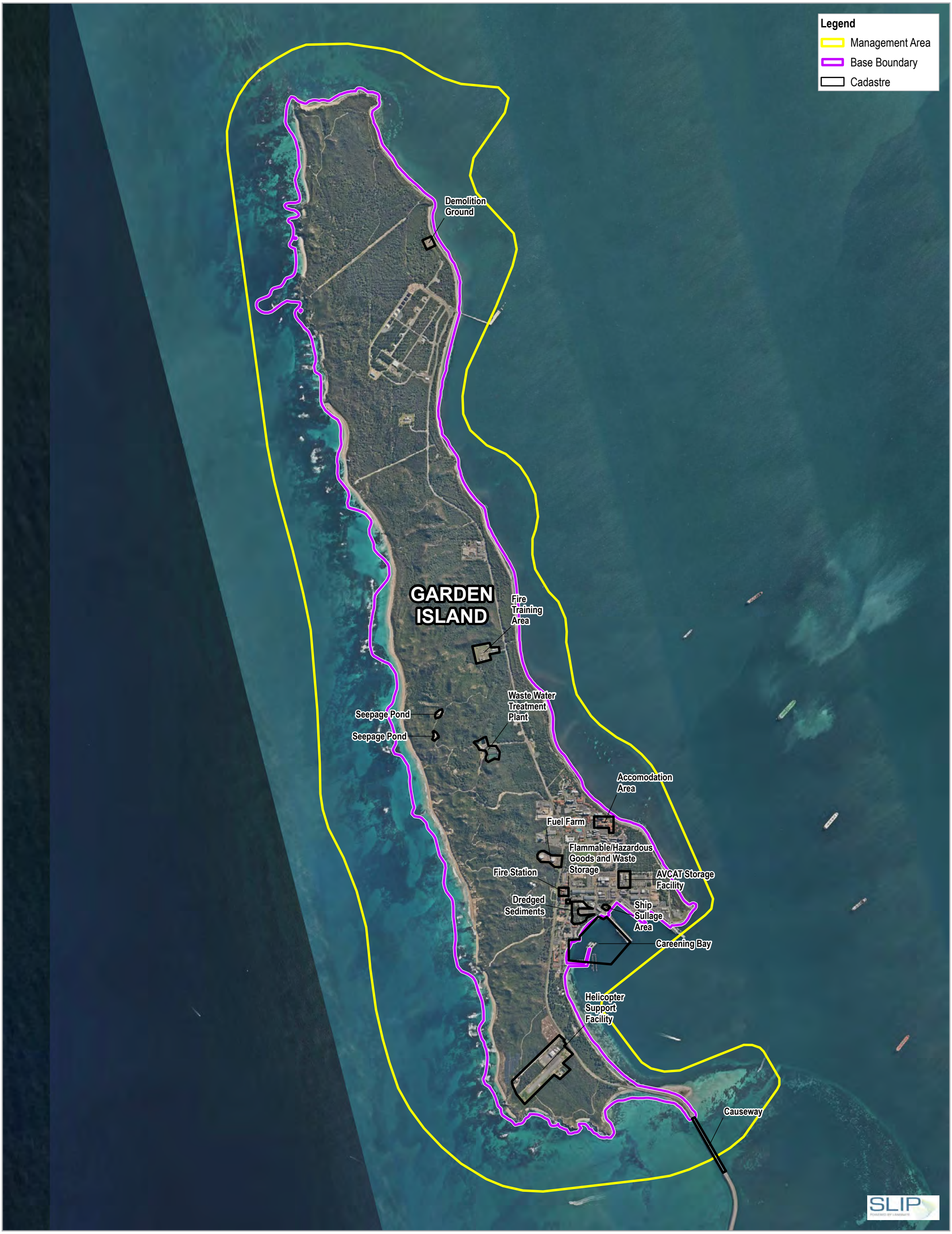
The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Department of Defence and others who provided information to GHD (including Government authorities)], which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

Appendices

Appendix A

Figures



Paper Size ISO A3

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

Base Layout and Management Area

Project No. **12641234**
Revision No. **0**
Date **03/12/2025**

FIGURE 1

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingOngoingMonitoringEvent\12641234_HMASStirlingOngoingMonitoringEvent.aprx\12641234_HMASStirlingQSEMar25_001_BaseLayout _Rev0
Print date: 03 Dec 2025 - 12:41

Data source: WANow: . Created by: [redacted]

Legend
PFAS Source Areas
Management Area

Demolition Ground
Torpedo Maintenance Explosive Area (E3)
Torpedo Maintenance Facility
Fire Training Area
Seepage Pond
Seepage Pond
Waste Water Treatment Plant
Accomodation Area
Drainage Swale
Fuel Farm
Flammable/Hazardous Goods and Waste Storage
AVCAT Storage Facility
Fire Station
Ship Sullage Area
Building 54 - Group of USTs
Dredged Sediments
Helicopter Support Facility

Paper Size ISO A3
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Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

PFAS Source Areas

Project No. 12641234
Revision No. A
Date 19/09/2025

FIGURE 2

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Paper Size ISO A3

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Map Projection: Transverse Mercator
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Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

Monitoring Locations – Fire Training Area

Project No. **12641234**
Revision No. **A**
Date **19/09/2025**

FIGURE 3

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingOngoingMonitoringEvent\12641234_HMASStirlingOngoingMonitoringEv
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Paper Size ISO A3

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

Monitoring Locations – Demolition Ground

Project No. **12641234**
Revision No. **A**
Date **19/09/2025**

FIGURE 4

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingOngoingMonitoringEvent\12641234_HMASStirlingOngoingMonitoringEv
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Paper Size ISO A3

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Metres

Map Projection: Transverse Mercator
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Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

Monitoring Locations – Wastewater Treatment Plant

Project No. **12641234**
Revision No. **A**
Date **19/09/2025**

FIGURE 5

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingOngoingMonitoringEvent\12641234_HMASStirlingOngoingMonitoringEv
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Paper Size ISO A3

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Metres

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Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

Monitoring Locations – Helicopter Support Facility

Project No. **12641234**
Revision No. **A**
Date **19/09/2025**

FIGURE 6

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingOngoingMonitoringEvent\12641234_HMASStirlingOngoingMonitoringEv
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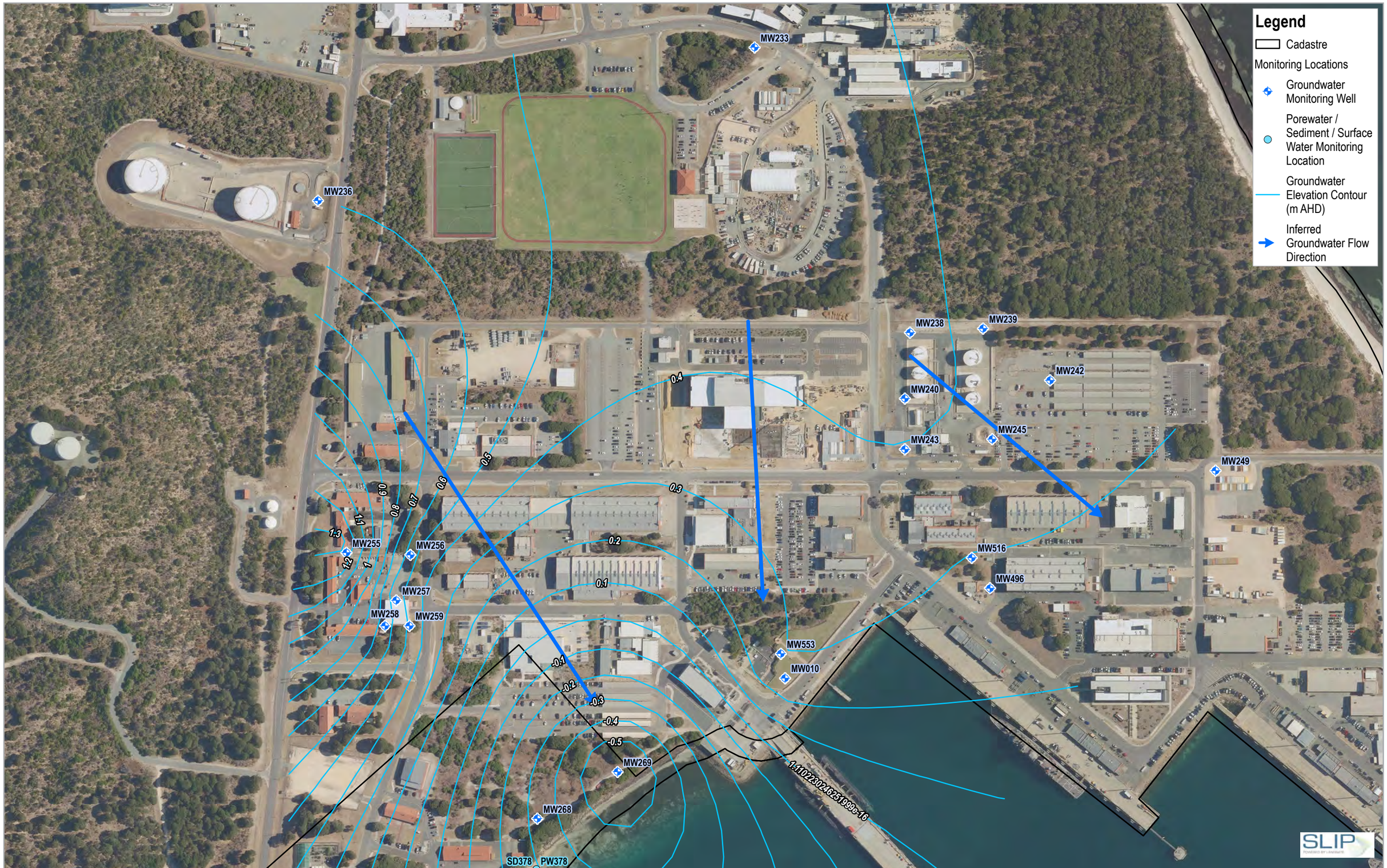

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Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – March 2025
HMAS Stirling

Monitoring Locations – Main Base Layout

Project No. **12641234**
Revision No. **A**
Date **19/09/2025**

FIGURE 7

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingOngoingMonitoringEvent\12641234_HMASStirlingOngoingMonitoringEv
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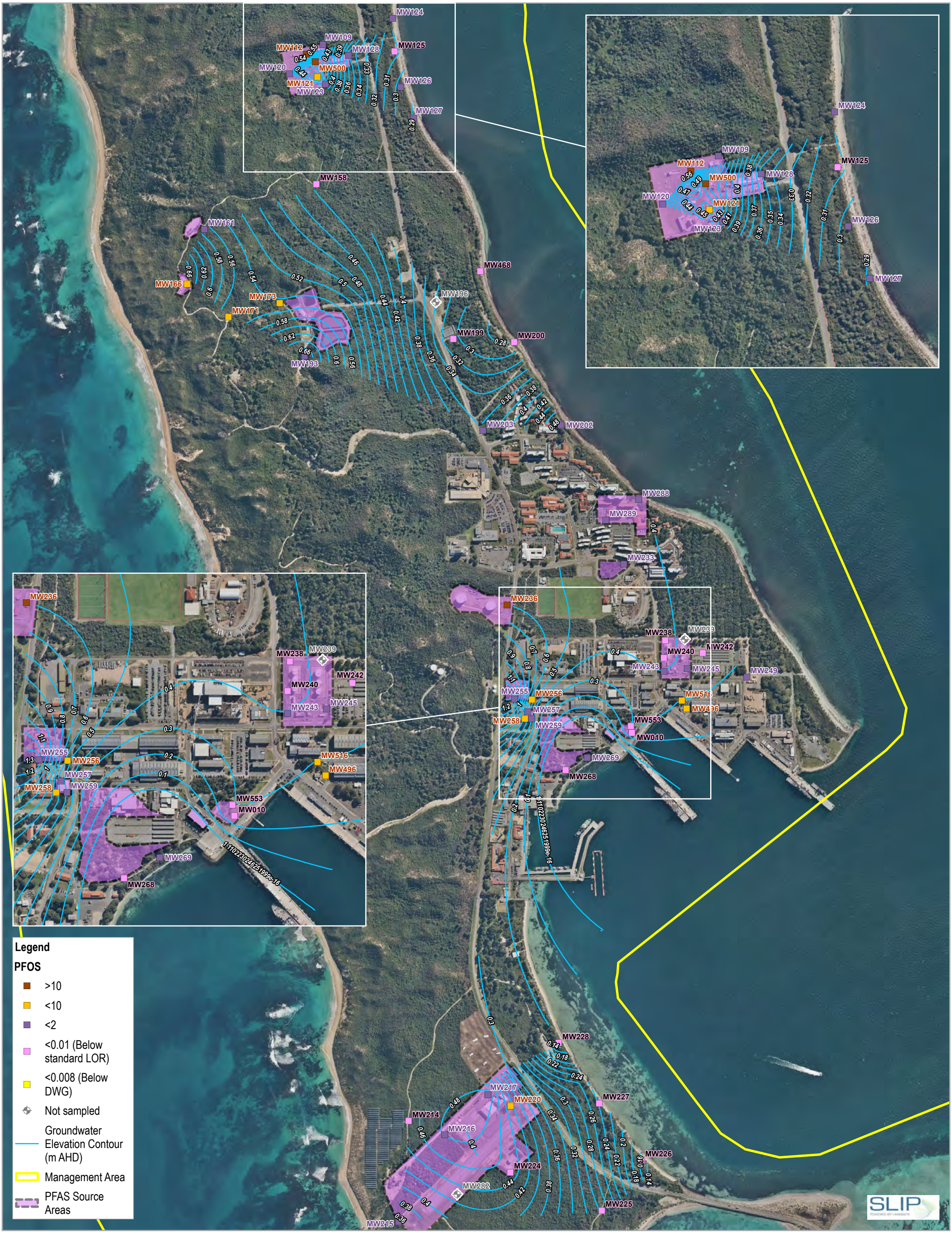
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MW112
MW128
MW125
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MW500
MW121
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MW126
MW127
MW158
MW161
MW166
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MW468
MW196
MW199
MW200
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MW203
MW202
MW288
MW289
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MW238
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MW240
MW242
MW243
MW245
MW249
MW255
MW256
MW257
MW258
MW259
MW516
MW496
MW553
MW010
MW269
MW268
MW228
MW217
MW220
MW227
MW214
MW216
MW224
MW282
MW226
MW225
MW215
Legend
PFOS
>10
<10
<2
<0.01 (Below standard LOR)
<0.008 (Below DWG)
Not sampled
Groundwater Elevation Contour (m AHD)
Management Area
PFAS Source Areas
Paper Size ISO A3
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Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50
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GHD
Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling
Groundwater PFOS Concentrations - March 2025
Project No. 12641234
Revision No. A
Date 14/05/2026
FIGURE 8a
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Paper Size ISO A3

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 8b

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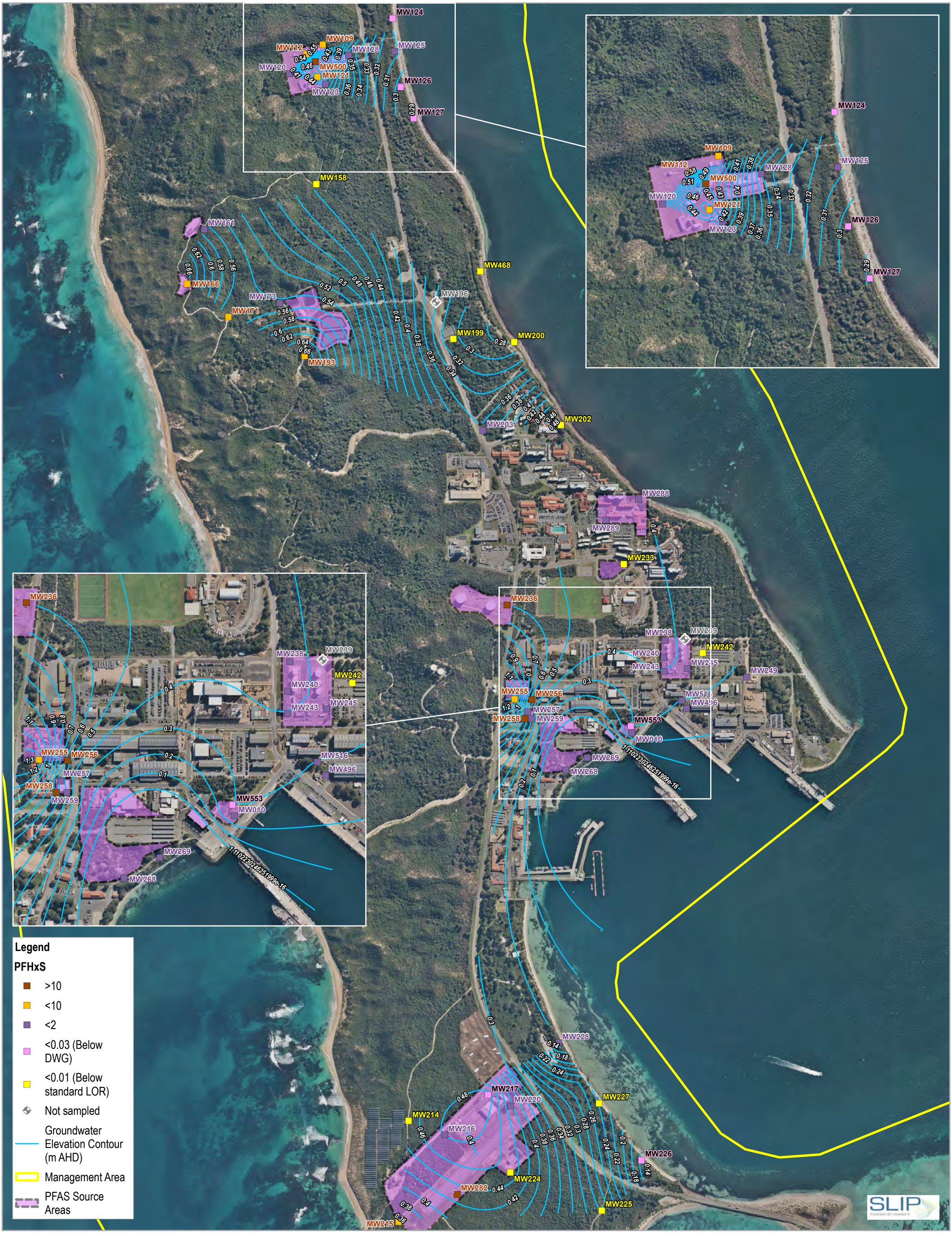

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFHxS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 9a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_013a_GroundwaterPFHxS_RevA
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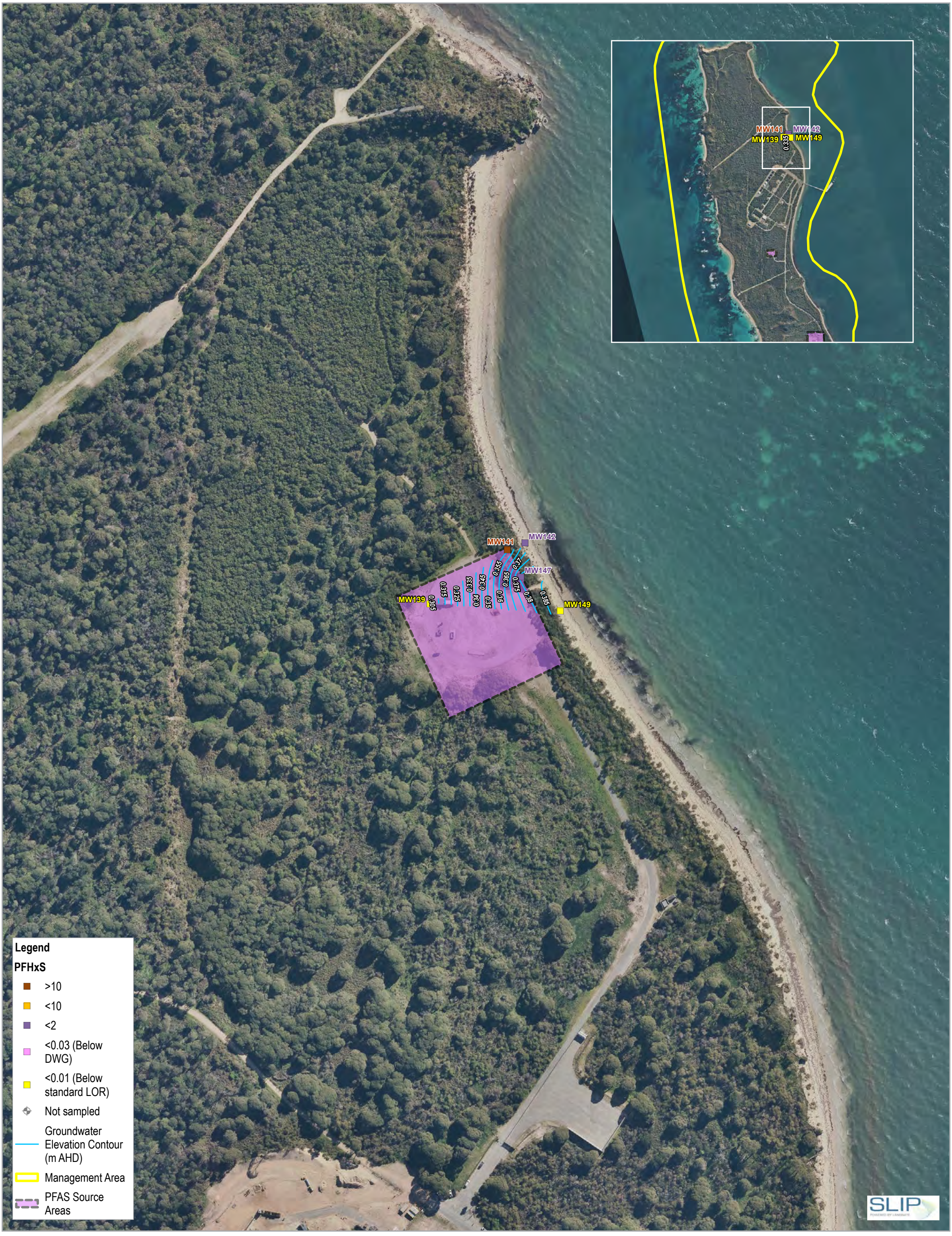

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Metres

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Horizontal Datum: GDA 1994
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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFHxS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 9b

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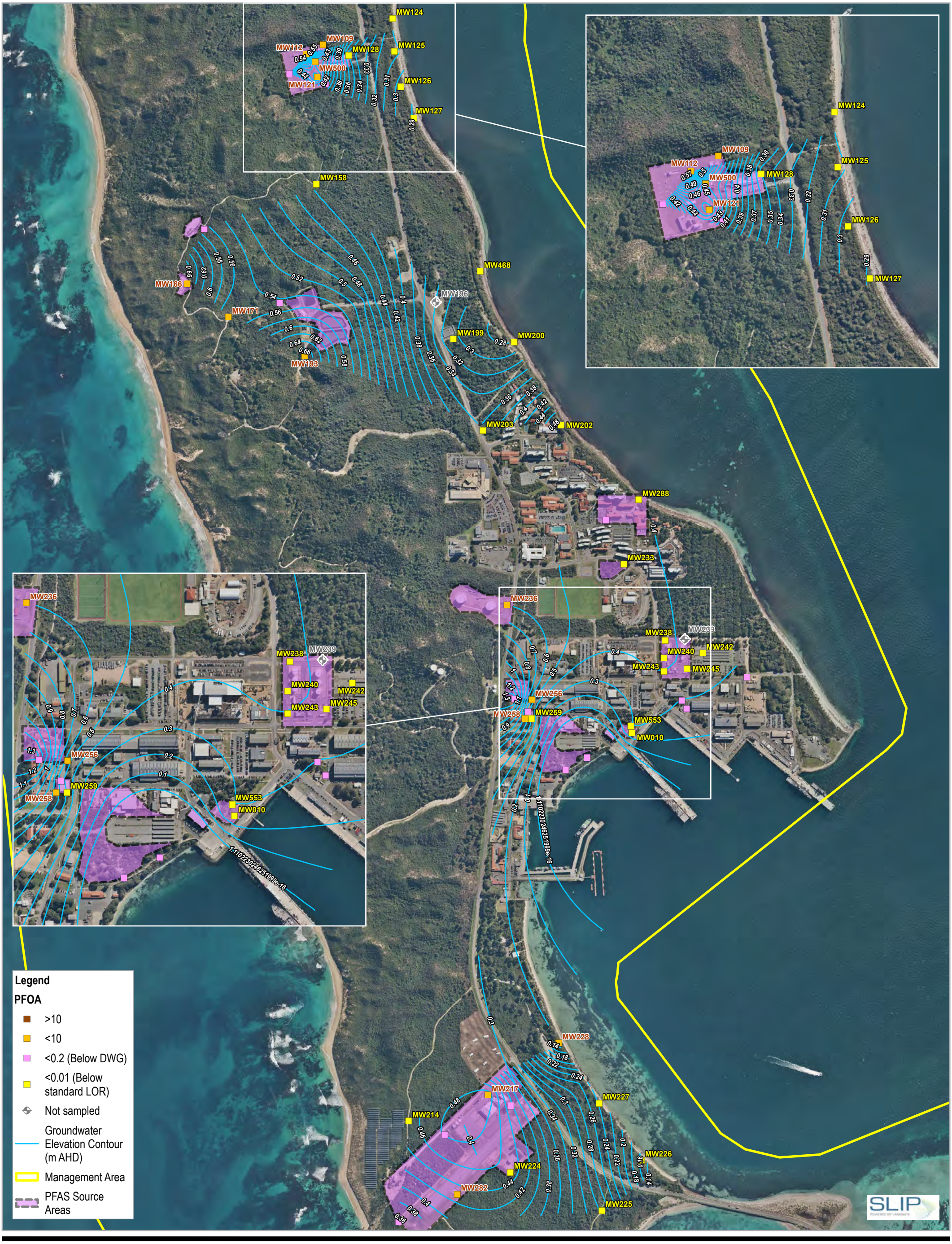

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Metres

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N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOA Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 10a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_017a_GroundwaterPFOA_RevA
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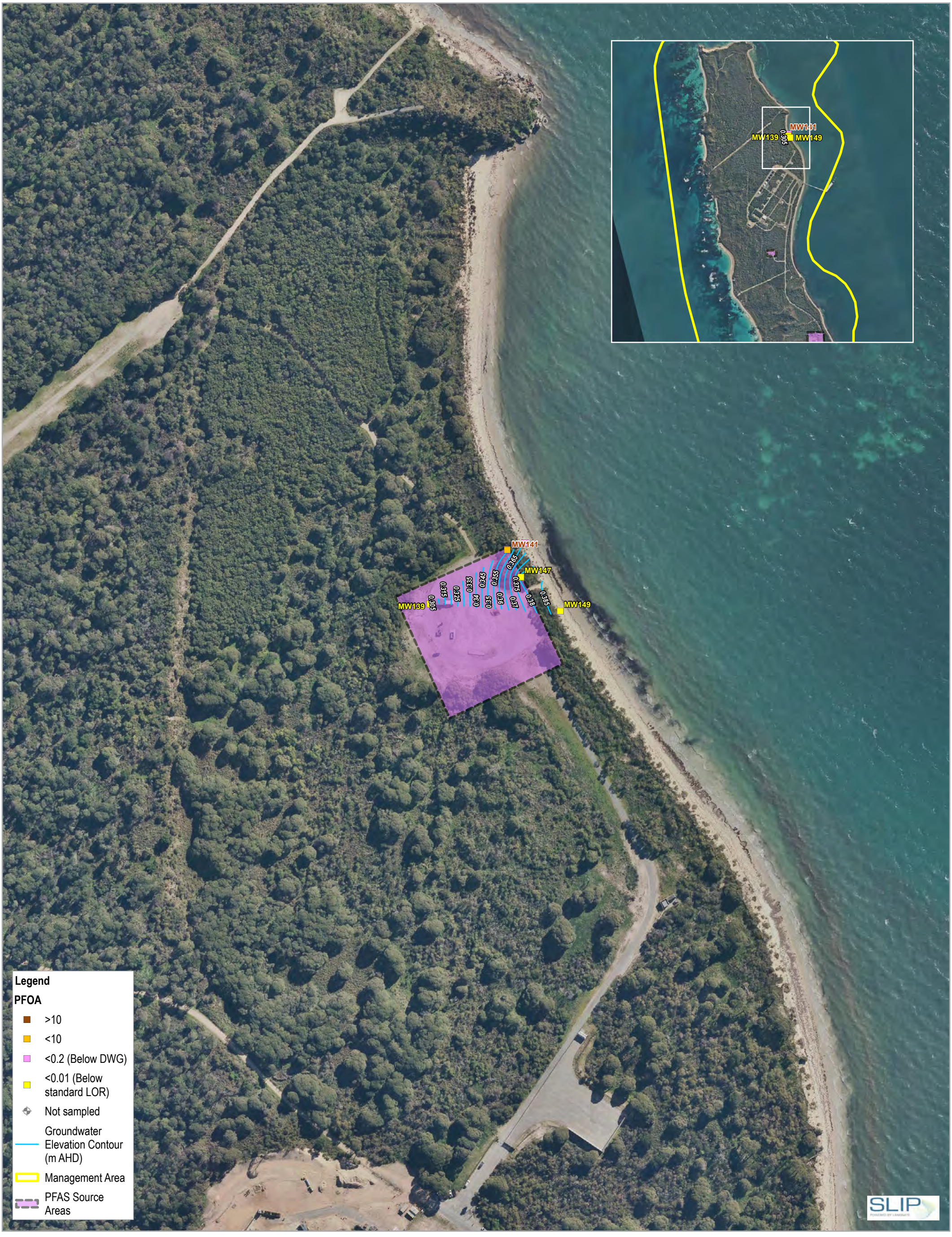

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOA Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 10b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_017b_GroundwaterPFOA_RevA
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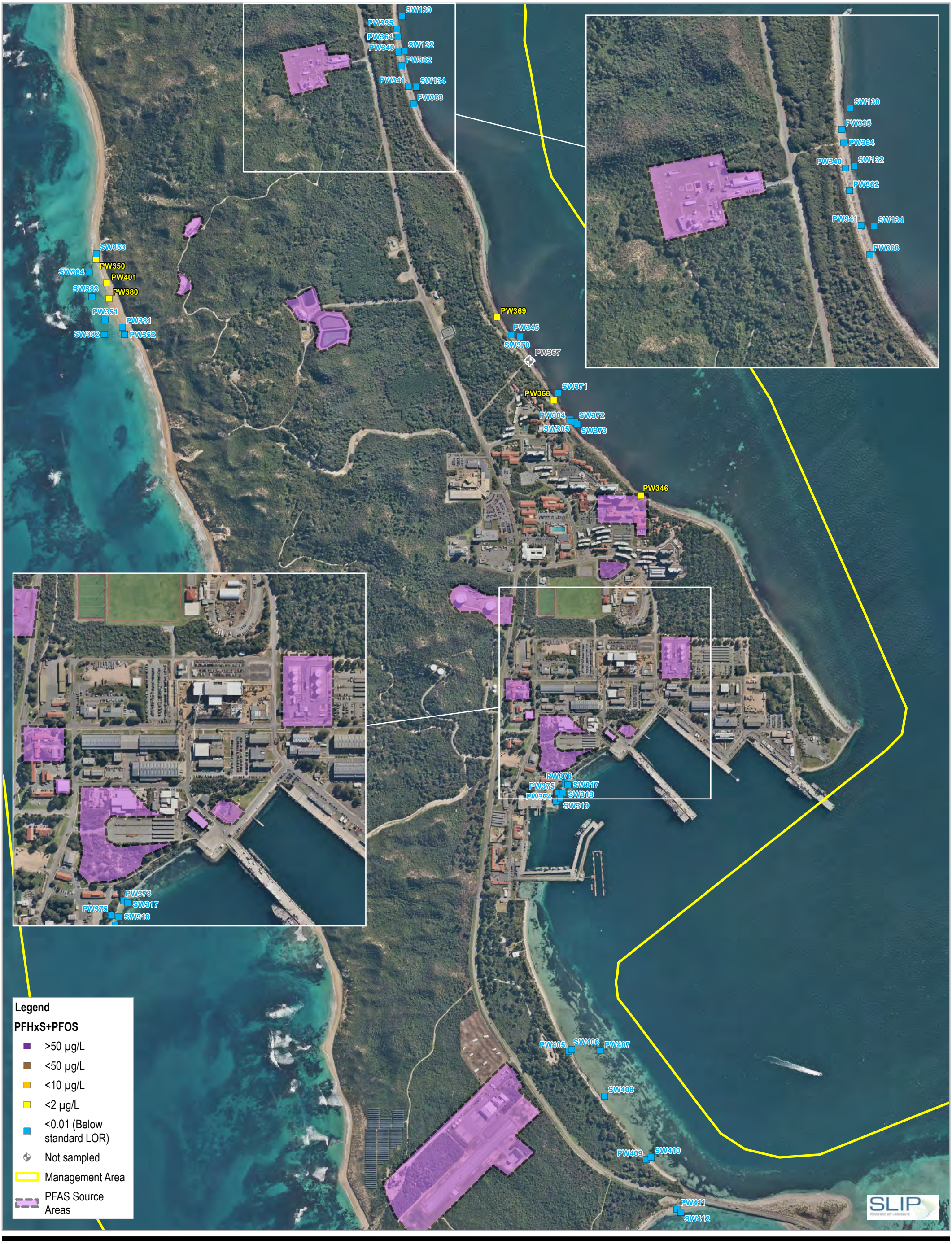

Paper Size ISO A3

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFHxS + PFOS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 11a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_021a_SW_PW_PFHxS_PFOS_RevA
Print date: 14 May 2026 - 16:31

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Paper Size ISO A3

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Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFHxS + PFOS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 11b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_021b_SW_PW_PFHxS_PFOS_RevA
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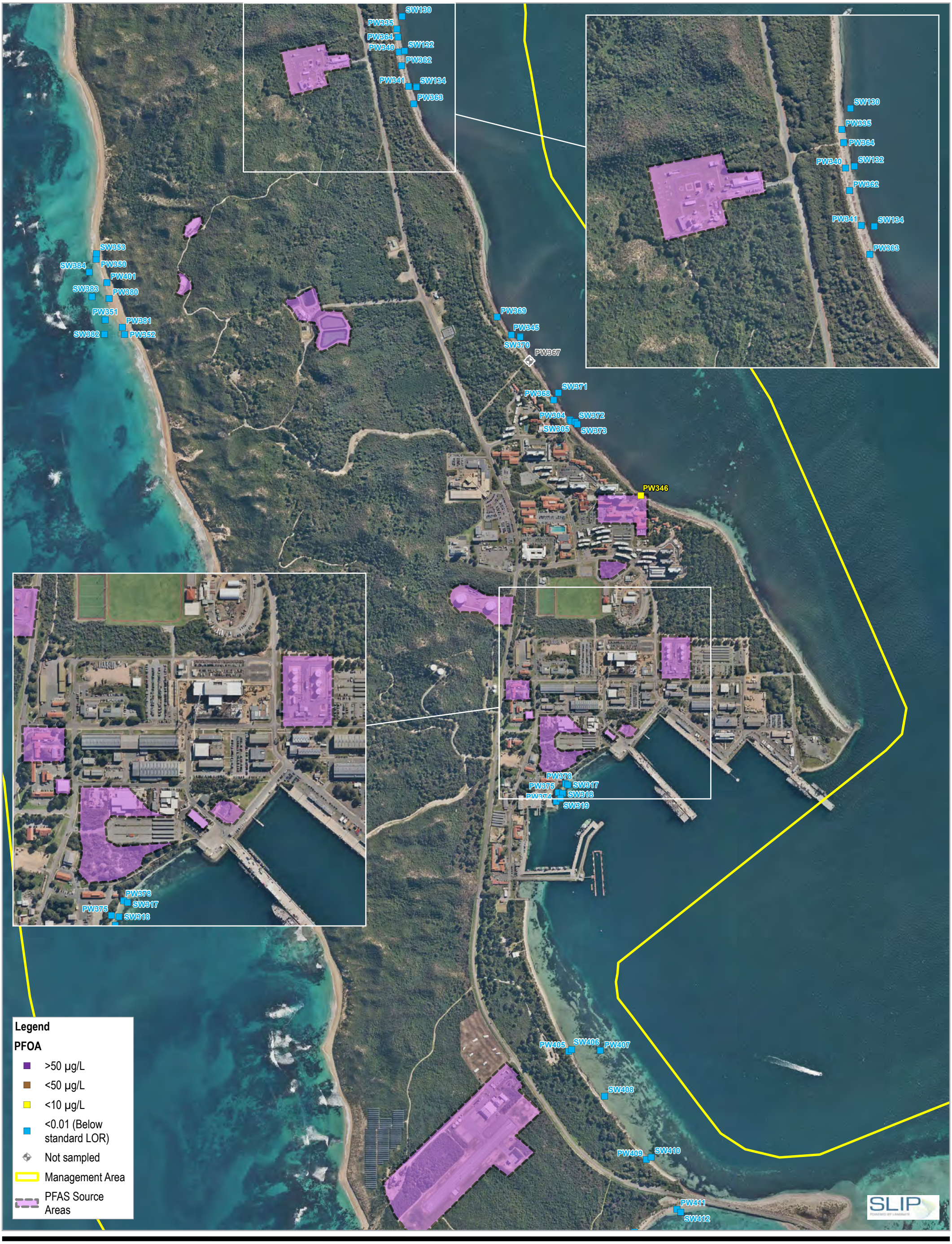

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Metres

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Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFOA Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **15/05/2026**

FIGURE 12a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_025a_SW_PW_PFOA_RevA
Print date: 15 May 2026 - 15:07

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

0 25 50 75 100

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFOA Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **15/05/2026**

FIGURE 12b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_025b_SW_PW_PFOA_RevA
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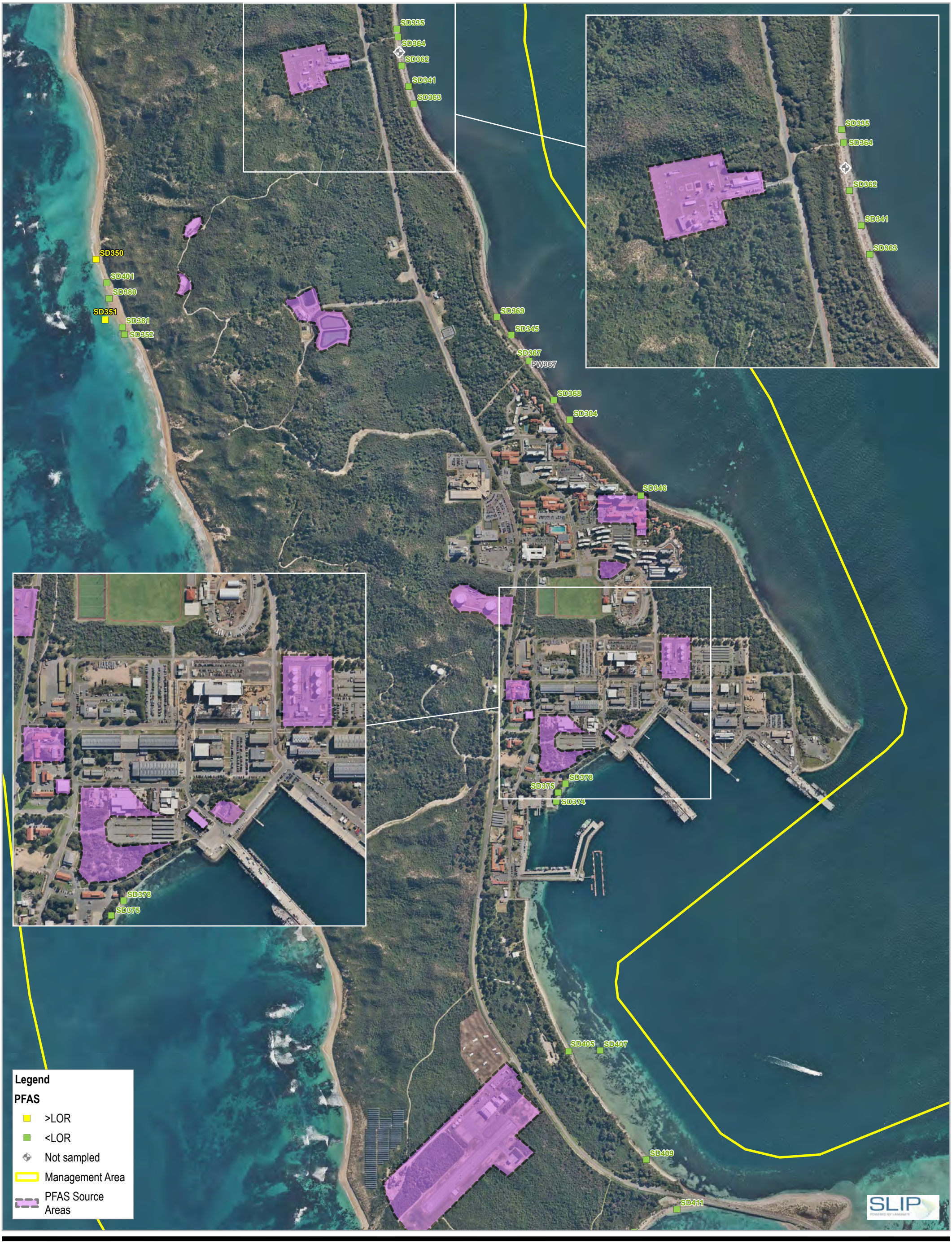

Paper Size ISO A3

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Sediment PFAS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 13a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEMar25\12641234_HMASStirlingQSEMar25.aprx\12641234_HMASStirlingQSEMar25_029a_SedimentPFAS_RevA
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Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

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Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Sediment PFAS Concentrations - March 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 13b

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Data source: WANow: Landgate / SLIP. Created by: [redacted]

Appendix B

Data validation

Appendix B

HMAS Stirling – March 2025 QA/QC Evaluation

The QA and QC procedures were undertaken in accordance with the ASC NEPM and the *Assessment and management of contaminated sites* (DWER 2021).

QA involves all the actions, procedures, checks and decisions undertaken to ensure the representativeness and integrity of samples and the accuracy and reliability of analytical results (NEPC 2013). QC involves protocols to monitor and measure the effectiveness of QA procedures.

B-1 Fieldwork Program

Field QA/QC procedures and compliance during the investigation are summarised in Table 1 below, with exceptions detailed in the following subsections.

Table 1 Summary of fieldwork QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information / data acceptable?
Sampling methods	All sampling methods outlined in the HMAS Stirling OMP SAQP (GHD 2025) were adhered to.	Yes	Yes
Recording keeping	Detailed records of field activities were maintained with the use of electronic or paper field sheets and quality control sample registers.	Yes	Yes, see Appendix F
CoC documentation	The CoC documentation was completed for each batch of samples, identifying the names of the samplers, the type of sample, the collection date, the analyses to be performed, sample preservation methods, and time the samples were relinquished to the courier.	Yes	Yes, see Appendix F
Sample labelling	Samples were properly labelled, showing reference number, sample ID, date of collection, sampler name and preservation techniques.	Yes	Yes
Sample containers	Samples were collected in appropriate laboratory supplied containers with suitable preservation methods (where required).	Yes	Yes
Sample storage and transport	Samples were stored in a chilled esky immediately after sampling prior to submission to the laboratory. Samples were kept in a chilled esky during delivery with CoC documentation. Samples were received at the laboratory at the recommended temperature (4 °C).	Yes, with exceptions	Yes, see Section B-1.1.
Decontamination	Reusable field equipment (e.g. interface meter) were appropriately decontaminated using Liquinox between each sampling location.	Yes	Yes
Rinsate blanks	Rinsate samples were collected by the sampler on each day following decontamination of reusable sampling equipment. Analysis of rinsate blanks reported concentrations below laboratory LOR indicating equipment was decontaminated appropriately.	Yes	Yes, see Section B-1.2.
Field blanks	Field blanks were collected by the sampler on each day to estimate potential contamination of a sample during the collection procedure. Analysis of field	Yes	Yes, see Section B-1.2.

QA/QC element	Requirement	Requirement adhered to?	Information / data acceptable?
	blanks reported concentrations below laboratory LOR indicating no cross contamination occurred as a result of ambient conditions during sampling.		
Duplicate samples	Blind and split duplicate samples were collected for analysis by the primary and secondary laboratories, respectively (at a frequency of at least one pair per 10 primary samples). RPDs calculated for the duplicate samples were at or below 30%.	Yes, with exceptions	Yes, see Section B-1.3.2.

B-1.1 Sample containers, storage, and transport

All samples were collected in appropriate laboratory supplied containers with suitable preservation methods (where applicable).

To aid sample integrity, all samples were promptly placed into a chilled esky (with double bagged ice) following the completion of sampling. Eskies were delivered to the primary laboratory (ALS Environmental) and secondary laboratory (Eurofins) as soon as practicable via courier.

As summarised in Table 2, all six sample receipts from primary and secondary laboratories noted the samples were higher than the recommended temperature (4 °C). However, these receipts also noted that an attempt to chill the samples and therefore it is considered that reasonable attempt to maintain the recommended sample temperature was made.

Table 2 Summary of sample receipt temperatures

Lab report number	Temperature (°C)	Earliest Sample Date	Lab Received Date	Comments
EP2404110	11.5	14/03/2025	18/03/2025	“Ice present”
EP2503930	11.5	10/03/2025	18/03/2025	“Ice present”
EP2505355	8.0	18/03/2025	24/03/2025	“Ice present”
EP2504356	8.0	17/03/2025	24/03/2025	“Ice present”
1198980	3.6	10/03/2025	17/03/2025	“Attempt to chill was evident”
1201174	16.8	21/03/2025	24/03/2025	“Attempt to chill was evident”

B-1.2 Quality assurance – blank samples

The groundwater QA samples collected during this sampling event were:

– **Rinsate blanks**: Rinsate blank samples are water samples collected from decontaminated, reused field equipment and were used primarily to assess whether the decontamination procedure was effective and if cross contamination has led to positive observations in subsequent samples. Rinsate samples were collected by pouring laboratory supplied rinsate water over reusable sampling equipment (e.g. interface probe) and collecting it in laboratory supplied containers. Rinsate samples were then transferred to a chilled cooler for sample preservation prior to and during transport to the testing laboratory.

– **Field blanks**: Field blank samples were used to estimate contamination of a sample during the collection procedure. Field blank samples were collected by pouring laboratory supplied rinsate water into laboratory supplied bottles onsite and sent to the laboratory for analysis along with other samples.

The blank samples collected and analysed as part of the quality assurance program are summarised in Table 3. All analyte concentrations in the blanks were below the laboratory LOR. The tabulated blank sample results are shown in Table QC.1 in Attachment 1.

Table 3 Summary of rinsate, field and transport blanks

Lab report number	Sample type	Sample ID	Below LOR
EP2404110	Rinsate Blank	0089_QC304_250313	Yes
		0089_QC305_250314	
	Field Blank	0089_QC404_250313	Yes
		0089_QC405_250314	
EP2503930	Rinsate Blanks	0089_QC301_250310	Yes
		0089_QC302_250311	
		0089_QC303_250312	
	Field Blank	0089_QC401_250310	Yes
		0089_QC402_250311	
		0089_QC403_250312	
EP2504355	Rinsate Blanks	0089_QC307_250318	Yes
		0089_QC308_250319	
		0089_QC309_250320	
		0089_QC310_250321	
	Field Blank	0089_QC407_250318	Yes
		0089_QC408_250319	
		0089_QC409_250320	
		0089_QC410_250321	

B-1.3 Quality control – duplicate samples

The QC samples collected during the investigation were:

– **Blind duplicates**: Blind duplicate samples were used to identify the variation in the analyte concentration between samples from the same sampling point and the repeatability of the laboratory's analysis.

– **Split duplicates**: Split duplicate samples were used to provide an indication of the repeatability of the results between laboratories.

Field duplicate samples (blind and split) were collected in replicate bottles during sampling. The required analyses were performed by ALS Laboratory group (primary laboratory) and Eurofins (secondary laboratory), both of whom are NATA accredited.

B-1.3.1 Sample collection frequency

Based on the OMP SAQP (GHD, 2025), one pair of duplicates (blind and split) was required to be collected and analysed per 10 primary PFAS samples. The frequency of groundwater duplicates collected for this assessment is summarised in Table 4.

Table 4 Duplicate sampling frequency summary

Matrix	Rate	Expected number of duplicate pairs	Number of blind duplicate samples collected	Number of split duplicate samples collected
Water	1 duplicate pair per 10 primary samples	14 (132 primary samples)	16	16
Sediment	1 duplicate pair per 10 primary samples	4 (36 Primary samples)	5	5

B-1.3.2 Relative percentage difference calculations

RPD calculations are used to assess how closely primary, blind duplicate and split duplicate sample results match. RPDs are a quantitative measure of the accuracy of the analytical results and are calculated in accordance with the procedure described in AS 4482.1 – 2005 (Standards Australia 2005). According to AS 4482.1 – 2005, typical RPDs are expected to range between 30% and 50%; however, this may be higher for organics and for low concentrations of analytes.

RPD results were considered acceptable if they were less than or equal to 30%. The only exception to this was when concentrations within the primary and blind or split sample were less than ten times the laboratory LOR. In this case, a greater RPD value is considered acceptable.

Where a result is reported below the laboratory LOR for one of the paired samples, the sample was assigned a concentration equal to the LOR for RPD calculation purposes. This is based on the consideration that the chemical may be present at a concentration just below the laboratory LOR or not present at all (i.e. the concentration is zero).

Water RPDs

For the water monitoring (including groundwater, surface water and potable water), a total of 1,023 RPDs were calculated, and 53 RPDs (i.e., 5.18%) exceeded the adopted (conservative) 30% RPD acceptable limit. 21 of these RPDs were higher than the 30% RPD limit, but the primary and/or duplicate sample concentrations were lower than ten times the laboratory LOR and were therefore considered acceptable. 921 RPDs were expressed as zero as both the primary and duplicate/split sample concentrations were less than the laboratory LOR. A summary of these exceedances is detailed in Table 5 and full calculations are provided in Table QC.2 in Attachment 1.

The RPD values greater than the adopted threshold of 30% (where the primary and/or duplicate sample concentrations were greater than 10 times the applied LOR) are considered to have limited impact on the overall data quality given the low proportion of outliers relative to the wider dataset and noting the reported concentrations in the duplicate pairs were within the same order of magnitude.

Table 5 Summary of water RPD exceedances

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Concentrations less than 10 x the LOR??
0089_MW228_250310 / 0089_QC203_250310 (split duplicate)	Perfluorobutane sulfonic acid (PFBS)	40%	0.28 µg/L	0.42 µg/L	No
	Perfluoropropanesulfonic acid (PFPrS)	60%	0.07 µg/L	0.13 µg/L	No
	Perfluorohexane sulfonic acid (PFHxS)	46%	0.59 µg/L	0.94 µg/L	No
	Perfluorobutanoic acid (PFBA)	48%	1.1 µg/L	1.8 µg/L	No
	Perfluoroheptanoic acid (PFHpA)	34%	0.99 µg/L	1.4 µg/L	No
	Perfluorohexanoic acid (PFHxA)	38%	3.66 µg/L	5.4 µg/L	No
	Perfluoropentanoic acid (PFPeA)	42%	4.04 µg/L	6.2 µg/L	No
	6:2 Fluorotelomer Sulfonate (6:2 FTS)	60%	0.37 µg/L	0.69 µg/L	No
	PFAS (Sum of Total)	41%	11.6 µg/L	17.56 µg/L	No
	PFAS (Sum of Total)(WA DER List	41%	11.3 µg/L	17.19 µg/L	No
	Sum of PFHxS and PFOS	46%	0.59 µg/L	0.94 µg/L	No

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Concentrations less than 10 x the LOR??
0089_PW345_250513 / 0089_QC111_250513 (split duplicate)	Perfluorooctane sulfonic acid (PFOS)	67%	0.02 µg/L	<0.01 µg/L	Yes
	PFAS (Sum of Total)	67%	0.02 µg/L	<0.01 µg/L	Yes
	PFAS (Sum of Total)(WA DER List)	67%	0.02 µg/L	<0.01 µg/L	Yes
	Sum of PFHxS and PFOS	67%	0.02 µg/L	<0.01 µg/L	Yes
0089_MW123_250321 / 0089_QC216_250321 (split duplicate)	Perfluorooctane sulfonic acid (PFOS)	33%	0.05 µg/L	0.07 µg/L	No
0089_MW120_250321 / 0089_QC217_250321 (split duplicate)	Perfluoroheptane sulfonic acid (PFHpS)	197%	1.20 µg/L	<0.01 µg/L	No
	Perfluorooctane sulfonic acid (PFOS)	198%	1.72 µg/L	<0.01 µg/L	No
	Perfluoropentane sulfonic acid (PFPeS)	100%	0.03 µg/L	<0.01 µg/L	Yes
	Perfluorohexane sulfonic acid (PFHxS)	198%	1.96 µg/L	<0.01 µg/L	No
	Perfluorohexanoic acid (PFHxA)	143%	0.06 µg/L	<0.01 µg/L	Yes
	Perfluorooctanoic acid (PFOA)	191%	0.43 µg/L	<0.01 µg/L	No
	PFAS (Sum of Total)	193%	5.40 µg/L	<0.01 µg/L	No
	PFAS (Sum of Total)(WA DER List)	195%	4.17 µg/L	<0.01 µg/L	No
	Sum of PFHxS and PFOS	199%	3.68 µg/L	<0.01 µg/L	No
0089_MW109_250321 / 0089_QC218_250321 (split duplicate)	Perfluorobutane sulfonic acid (PFBS)	150%	0.06 µg/L	0.42 µg/L	No
	Perfluoroheptane sulfonic acid (PFHpS)	40%	<0.02 µg/L	0.03 µg/L	Yes
	Perfluorooctane sulfonic acid (PFOS)	149%	0.06 µg/L	0.41 µg/L	No
	Perfluoropropanesulfonic acid (PFPrS)	127%	<0.02 µg/L	0.09 µg/L	Yes
	Perfluoropentane sulfonic acid (PFPeS)	141%	0.12 µg/L	0.69 µg/L	No
	Perfluorohexane sulfonic acid (PFHxS)	147%	0.64 µg/L	4.2 µg/L	No
	Perfluorobutanoic acid (PFBA)	97%	<0.1 µg/L	0.29 µg/L	No
	Perfluorohexanoic acid (PFHxA)	141%	0.09 µg/L	0.52 µg/L	No
	Perfluorooctanoic acid (PFOA)	100%	<0.01 µg/L	0.03 µg/L	Yes
	PFAS (Sum of Total)	149%	0.97 µg/L	6.68 µg/L	No
	PFAS (Sum of Total)(WA DER List)	149%	0.85 µg/L	5.87 µg/L	No
	Sum of PFHxS and PFOS	147%	0.70 µg/L	4.61 µg/L	No

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Concentrations less than 10 x the LOR??
0089_MW124_250321 / 0089_QC219_250321 (split duplicate)	Perfluorobutane sulfonic acid (PFBS)	130%	0.07 µg/L	0.33 µg/L	No
	Perfluorooctane sulfonic acid (PFOS)	67%	<0.01 µg/L	0.02 µg/L	Yes
	Perfluoropropanesulfonic acid (PFPrS)	150%	0.02 µg/L	0.14 µg/L	No
	Perfluoropentane sulfonic acid (PFPeS)	86%	<0.02 µg/L	0.05 µg/L	Yes
	Perfluorohexane sulfonic acid (PFHxS)	133%	<0.01 µg/L	0.05 µg/L	Yes
	Perfluorohexanoic acid (PFHxA)	40%	<0.02 µg/L	0.03 µg/L	Yes
	PFAS (Sum of Total)	149%	0.09 µg/L	0.62 µg/L	No
	PFAS (Sum of Total)(WA DER List)	144%	0.07 µg/L	0.43 µg/L	No
	Sum of PFHxS and PFOS	150%	<0.01 µg/L	0.07 µg/L	Yes
0089_MW126_250321 / 0089_QC220_250321 (split duplicate)	Perfluorooctane sulfonic acid (PFOS)	67%	<0.01 µg/L	0.02 µg/L	Yes
	Perfluorohexane sulfonic acid (PFHxS)	120%	<0.01 µg/L	0.04 µg/L	Yes
	PFAS (Sum of Total)(WA DER List)	143%	<0.01 µg/L	0.06 µg/L	Yes
	Sum of PFHxS and PFOS	143%	<0.01 µg/L	0.06 µg/L	Yes
0089_MW127_25021 /0089_QC221_250321 (split duplicate)	Perfluorooctane sulfonic acid (PFOS)	67%	<0.01 µg/L	0.02 µg/L	Yes
	Perfluorohexane sulfonic acid (PFHxS)	100%	<0.01 µg/L	0.03 µg/L	Yes
	Sum of PFHxS and PFOS	133%	<0.01 µg/L	0.05 µg/L	Yes

Sediment RPDs

For the sediment monitoring a total of 320 RPDs were calculated and there were no exceedances of the adoped 30% RPD acceptable limit. 316 RPDs were expressed as zero both the primary and duplicate/split sample concentrations were less than the laboratory LOR.

B-2 Laboratory program

Laboratory QA/QC procedures and compliance during the investigation are summarised in Table 6 with exceptions detailed in the following subsections.

Table 6 Summary of laboratory QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information/data acceptable?
NATA accreditation	Analysis of CoPC performed under NATA accreditation or equivalent government endorsed provider of accreditation.	Yes	Yes
Holding times	Laboratory to complete sample extraction and analysis of CoPC within method specifications.	Yes, with exceptions	Yes, see Section B-2.2.6

QA/QC element	Requirement	Requirement adhered to?	Information/data acceptable?
Analytical methods	Sample analyses are to use appropriate methods for each CoPC with regard to Schedule B (3) of the *ASC NEPM* and in accordance with the laboratory's NATA accreditation.	Yes	Yes
Laboratory LORs	Laboratory LORs are below adopted assessment criteria.	LORs were applied per the SAQP (GHD, 2025) and in some cases exceed adopted guidelines values (refer to main report body).	
Laboratory QC results	No method blank, laboratory duplicates, laboratory controls, matrix spike or surrogate spike recovery outliers were identified. Sufficient quantities of laboratory QC analysis was undertaken.	Yes, with exceptions	Yes, see Section 2.2.

B-2.1 Laboratory quality control procedures

Laboratory QC samples incorporated in the analytical process included:

- **Laboratory blind duplicates**: A laboratory blind duplicate provides data on the analytical precision and reproducibility of the analytical result. The laboratory blind duplicate is created by subsampling from one of the primary samples submitted for analysis. Laboratory blind duplicates are analysed at a rate equivalent to one in ten per analytical batch, or one sample per batch if less than 10 samples are analysed in a batch.
- **LCS:** The LCS analysis of either a reference material or a control matrix fortified with analytes representative of the analyte class. The purpose of LCS is to monitor method precision and accuracy independent of the sample matrix. Typically, the percentage recovery of the LCS is compared to the dynamic recovery limit based on the statistical analysis of the processed LCS analysis.
- **Matrix spikes**: Matrix spike sample analysis is the analysis of one or more replicate portions of samples from the batch, after fortifying the additional portion(s) with known quantities of the analyte(s) of interest. The percentage recovery of target analyte(s) from matrix spike samples is used to determine the bias of the method in the specific sample matrix.
- **Surrogate spikes**: Surrogate spikes provide a means of checking that no gross errors have occurred during any stage of the analytical method leading to significant analyte loss. Surrogate recoveries are similar to the analyte of interest in terms of chemical composition, extractability, and chromatographic conditions (retention time), but which are not normally found in environmental samples. Surrogate compounds are spiked into blanks, standards and samples submitted for organic analyses by gas-chromatographic techniques prior to sample extraction.
- **Method blanks**: Method or analysis blank sample analysis is the analysis of a sample that is as free as possible of the analytes of interest but has been prepared the same as the samples under investigation. The analysis is to ascertain if laboratory reagents, glassware and other laboratory consumables contribute to the observed concentration of analytes in the process batch. If below the maximum acceptable method blank (20% of the practical quantisation limit), the contribution is subtracted from the gross analytical signal for each analysis before calculating the sample analyte concentration. The method blank should return analyte concentrations as 'not detected'.

B-2.2 Laboratory quality control results

Laboratory quality control results were compared against criteria set by ALS Environmental and Eurofins, which are largely based on the *ASC NEPM* and US EPA (2006) methods. The individual testing laboratories conducted an assessment of the laboratory QC program internally; however, the results were also independently reviewed and assessed by GHD. All laboratory quality control measures were within the adopted acceptance criteria with the exception of those described in the subsections below.

The exceptions were limited and comprised a very small proportion of the large number of quality control measures completed for the investigation. Based on this, the exceptions described in the subsections below are not considered to significantly influence data quality.

B-2.2.1 QC sample frequency – outliers

All laboratory QC samples were tested with the expected frequency, except for those summarised in Table 7 QC sample frequency – outliers. These outliers only represent a small portion of the internal lab QC program conducted. Therefore, these minor non-compliances reported for this investigation are not considered to have materially affected the conclusions of this report.

Table 7 QC sample frequency - outliers

Lab report	QC sample type	Method	Actula rate / expected rate (%)
EP2404110	Laboratory Duplicates	PFAS by LCMSMS	7.69 / 10.00
	Matrix Spikes	PFAS by LCMSMS	3.85 / 5.00
EP2503930	Laboratory Duplicates	PFAS by LCMSMS	0.00 / 10.00
	Matrix Spikes	PFAS by LCMSMS	0.00 / 5.00
	Matix Spike (Soil)	PFAS by LCMSMS	4.92 / 5.00
EP2504355	Laboratory Duplicates	PFAS by LCMSMS	0.00 / 10.00
	Matrix Spikes	PFAS by LCMSMS	0.00 / 5.00
EP2504356	Laboratory Duplicates	PFAS by LCMSMS	7.69 / 10.00
	Matrix Spikes	PFAS by LCMSMS	-

B-2.2.2 Matrix spike – outliers

All matrix spikes were of an acceptable recovery. No Matrix spike outliers occurred.

B-2.2.3 Laboratory control spike – outliers

All laboratory control spike outliers were of an acceptable recovery except for the one summarised in Table 8. This outlier only represents a small portion of the internal lab QC program conducted. Therefore, this minor non-compliance is not considered to have materially affected the conclusions of the report.

Table 8 Laboratory control spike outliers

Lab report	Sample ID	Analyte	Data	Limits	Comment
EP2504355	QC-6463938-002 (water)	Perfluorodecanoic acid (PFDA)	162%	71.0 – 129%	Recovery greater than upper control limit

B-2.2.4 Surrogate recovery – outliers

All laboratory surrogates were an acceptable recovery.

B-2.2.5 Duplicate – outliers

Samples were analysed and received acceptable RPDs.

B-2.2.6 Holding time – outliers

Samples were analysed within appropriate holding times.

B-3 Data quality indicator evaluation

An evaluation of the DQIs set for this assessment was undertaken subsequent to field works and laboratory analysis, this evaluation is presented in

Table 9 Data quality indicator evaluation.

DQI	Evaluation criteria	Acceptable?
Completeness	All locations that were proposed to be sampled were sampled where possible. Samples were analysed according to the OMP (GHD 2019).	Yes
	All field documentation is complete and correct, including chain of custody documentation for samples.	Yes
	Field forms and documentation capture all relevant important information.	Yes
	Samples were analysed within appropriate holding times.	Yes
	Appropriate laboratory limits of reporting for comparison to relevant assessment criteria.	Yes
Comparability	Standardised operating procedure for groundwater sampling was adhered to and is in line with relevant guidelines.	Yes
	Field staff were experienced in the sampling of groundwater and were appropriately trained.	Yes
	Consistent laboratory use with consistent analytical methods used.	Yes
	Climatic conditions consistent and considered representative of region.	Yes
Representativeness	Samples were collected in a uniform and consistent manner, therefore representative of the media in the field.	Yes
Precision	Sufficient quantities of field blind and split duplicates were collected to enable comparison within and between laboratories.	Yes
	Sufficient quantities of internal laboratory duplicates were analysed to enable comparison within laboratories.	Yes
	Relative percentage difference calculations show that a large majority of duplicate sample concentrations are within defined difference limits.	Yes
	Field equipment was calibrated by equipment supplier (Appendix G6).	Yes
Accuracy	Sufficient quantities of field blanks, rinsate blanks and transport blanks were collected and analysed, with no results indicating cross contamination.	Yes
	Sufficient quantities of internal laboratory method blanks, surrogate spikes and laboratory control samples were analysed to determine laboratory accuracy, with the large majority of samples within defined limits.	Yes

Based on the results of the evaluation of the QA/QC data described in the previous sections, the reported QA/QC non-compliances are not considered likely to significantly influence the reliability of the analytical data. It is further considered that:

– The field and laboratory quality assurance measures implemented provide a reasonable level of confidence that the data collected and reported is appropriately complete, comparable and representative.
– The field and laboratory quality control measures implemented provide a reasonable level of confidence that the data collected and reported is appropriately accurate and precise.
– The overall review of the QA/QC results indicates that the data collected for the investigation is of acceptable quality upon which to provide an adequate and reliable assessment of the property.

Attachment 1 – QA/QC Data Tables

Table QC.1 Blank results

Table QC.2 Relative Percentage Differences – Water

Table QC.3 Relative Percentage Differences – Sediment

	Sample Type		Field Blank								
	Field ID		0089_QC401_250310	0089_QC402_250311	0089_QC403_250312	0089_QC404_250313	0089_QC405_250314	0089_QC407_250318	0089_QC408_250319	0089_QC409_250320	0089_QC410_250321
	Date		10 Mar 2025	11 Mar 2025	12 Mar 2025	13 Mar 2025	14 Mar 2025	19 Mar 2025	19 Mar 2025	20 Mar 2025	21 Mar 2025
	Lab Report Number		EP2503930	EP2503930	EP2503930	EP2504110	EP2504110	EP2504355	EP2504355	EP2504355	EP2504355
Analyte	**Unit**	**LOR**									
PFAS - Perfluoroalkyl Sulfonic Acids											
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids											
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums											
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Appendix B
Table QC.1
Blank Analytical Results

	Sample Type		Rinsate								
	Field ID		0089_QC301_250310	0089_QC302_250311	0089_QC303_250312	0089_QC304_250313	0089_QC305_250314	0089_QC307_250318	0089_QC308_250319	0089_QC309_250320	0089_QC310_250321
	Date		10 Mar 2025	11 Mar 2025	12 Mar 2025	13 Mar 2025	14 Mar 2025	19 Mar 2025	19 Mar 2025	20 Mar 2025	21 Mar 2025
	Lab Report Number		EP2503930	EP2503930	EP2503930	EP2504110	EP2504110	EP2504355	EP2504355	EP2504355	EP2504355
Analyte	**Unit**	**LOR**									
PFAS - Perfluoroalkyl Sulfonic Acids											
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids											
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums											
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

	Location Code		0089_SW408	0089_SW408		0089_SW408	0089_SW408		0089_PW407	0089_PW407		0089_PW407	0089_PW407		0089_MW228	0089_MW228		0089_MW228	0089_MW228		0089_PW316	0089_PW316		0089_PW316	0089_PW316	
	Date		10 Mar 2025	10 Mar 2025		10 Mar 2025	10 Mar 2025		10 Mar 2025	10 Mar 2025		10 Mar 2025	10 Mar 2025		10 Mar 2025	10 Mar 2025		10 Mar 2025	10 Mar 2025		11 Mar 2025	11 Mar 2025		11 Mar 2025	11 Mar 2025	
	Field ID		0089_SW408_250310	0089_QC101_2_50310	RPD (%)	0089_SW408_250310	0089_QC201_2_50310	RPD (%)	0089_PW407_250310	0089_QC102_2_50310	RPD (%)	0089_PW407_250310	0089_QC202_2_50310	RPD (%)	0089_MW228_250310	0089_QC103_2_50310	RPD (%)	0089_MW228_250310	0089_QC203_2_50310	RPD (%)	0089_PW316_250311	0089_QC104_2_50311	RPD (%)	0089_PW316_250311	0089_QC204_2_50311	RPD (%)
	Sample Type		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
	Lab Report Number		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																								
PFAS - Perfluoroalkyl Sulfonic Acids																										
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	0.28	0.32	13	0.28	0.42	40	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	0.07	0.06	15	0.07	0.13	60	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	0.18	0.21	15	0.18	0.24[#1]	29	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.59	0.78	28	0.59	0.94[#1]	46	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																										
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	1.1	1.2	9	1.1	1.8	48	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	0.99	1	1	0.99	1.4[#1]	34	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	3.66	4.86	28	3.66	5.4	38	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.3	0.29	3	0.3	0.34[#1]	13	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	4.04	4.86	18	4.04	6.2	42	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																										
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																										
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	0.37	0.46	22	0.37	0.69	60	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																										
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	11.6	14	19	11.6	17.56	41	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	11.3	13.8	20	11.3	17.19	41	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	0.34	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.59	0.78	28	0.59	0.94	46	<0.01	<0.01	0	<0.01	<0.01	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	1.28	-	-	-	-	-	<0.01	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

	Location Code		0089_MW158	0089_MW158		0089_MW158	0089_MW158		0089_PW381	0089_PW381		0089_PW381	0089_PW381		0089_SW353	0089_SW353		0089_SW353	0089_SW353		0089_PW345	0089_PW345		0089_PW345	0089_PW345	
	Date		12 Mar 2025	12 Mar 2025		12 Mar 2025	12 Mar 2025		12 Mar 2025	12 Mar 2025		12 Mar 2025	12 Mar 2025		12 Mar 2025	12 Mar 2025		12 Mar 2025	12 Mar 2025		13 Mar 2025	13 Mar 2025		13 Mar 2025	13 Mar 2025	
	Field ID		0089_MW158_250312	0089_QC110_250312	RPD (%)	0089_MW158_250312	0089_QC210_250312	RPD (%)	0089_PW381_250312	0089_QC108_250312	RPD (%)	0089_PW381_250312	0089_QC208_250312	RPD (%)	0089_SW353_250312	0089_QC107_250312	RPD (%)	0089_SW353_250312	0089_QC207_250312	RPD (%)	0089_PW345_250313	0089_QC111_25313	RPD (%)	0089_PW345_250313	0089_QC211_250313	RPD (%)
	Sample Type		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
	Lab Report Number		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																								
PFAS - Perfluoroalkyl Sulfonic Acids																										
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.02	<0.01	**67**	0.02	0.02[#1]	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																										
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																										
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																										
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																										
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	0.02	<0.01	**67**	0.02	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	0.02	<0.01	**67**	0.02	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	0.02	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.02	<0.01	**67**	0.02	0.02	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	0.02	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Location Code			0089_PW330	0089_PW330		0089_PW330	0089_PW330		0089_SW150	0089_SW150		0089_MW123	0089_MW123		0089_MW123	0089_MW123		0089_MW120	0089_MW120		0089_MW120	0089_MW120		0089_MW109	0089_MW109	
Date			14 Mar 2025	14 Mar 2025		14 Mar 2025	14 Mar 2025		14 Mar 2025	14 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025	
Field ID			0089_PW330_250314	0089_QC113_250314	RPD (%)	0089_PW330_250314	0089_QC213_250314	RPD (%)	0089_SW150_250314	0089_QC215_250314	RPD (%)	0089_MW123_250321	0089_QC116_250321	RPD (%)	0089_MW123_250321	0089_QC216_250321	RPD (%)	0089_MW120_250321	0089_QC117_250321	RPD (%)	0089_MW120_250321	0089_QC217_250321	RPD (%)	0089_MW109_250321	0089_QC118_250321	RPD (%)
Sample Type			Normal	Field_D		Normal	Interlab_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D	
Lab Report Number			EP2503930	EP2503930		EP2503930	1198980		EP2504110	1198980		EP2504355	EP2504355		EP2504355	1201174		EP2504355	EP2504355		EP2504355	1201174		EP2504355	EP2504355	
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																									
PFAS - Perfluoroalkyl Sulfonic Acids																											
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	0.22	0.22	0	0.22	0.27	20	<0.02	<0.02	0	<0.02	<0.01	0	0.06	0.07	15
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	0.03	0.04	29	0.03	0.04[#1]	29	1.2	1.23	2	1.2	<0.01	**197**	<0.02	<0.02	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.05	0.06	18	0.05	0.07[#1]	**33**	1.72	1.71	1	1.72	<0.01	**198**	0.06	0.06	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	0.03	0.03	0	0.03	0.04	29	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	0.18	0.21	15	0.18	0.21[#1]	15	0.03	0.03	0	0.03	<0.01	**100**	0.12	0.12	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	1.04	1.07	3	1.04	1.2[#1]	14	1.96	1.98	1	1.96	<0.01	**198**	0.64	0.62	3
PFAS - Perfluoroalkyl Carboxylic Acids																											
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	0.06	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	0.04	0.05	22	0.04	0.05[#1]	22	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	0.23	0.22	4	0.23	0.23	0	0.06	0.06	0	0.06	<0.01	**143**	0.09	0.09	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	0.08	0.06	29	0.08	0.09[#1]	12	0.43	0.52	19	0.43	<0.01	**191**	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	0.06	0.07	15	0.06	0.07	15	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
PFAS - Perfluoroalkyl Sulfonamide																											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0
PFAS - Fluorotelomer Sulfonic Acids																											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0
PFAS - Sums																											
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.1	0	1.96	2.03	4	1.96	2.33	17	5.4	5.53	2	5.4	<0.1	**193**	0.97	0.96	1
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.05	0	1.72	1.75	2	1.72	2.04	17	4.17	4.27	2	4.17	<0.05	**195**	0.85	0.84	1
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	<0.01	-	-	-	-	-	0.16	-	-	-	-	-	<0.01	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	1.09	1.13	4	1.09	1.27	15	3.68	3.69	0	3.68	<0.01	**199**	0.7	0.68	3
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	<0.01	-	-	-	-	-	1.36	-	-	-	-	-	<0.01	-	-	-	-	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Appendix B
Table QC.2
Relative Percentage Differences - Water

	Location Code		0089_MW109	0089_MW109		0089_MW124	0089_MW124		0089_MW124	0089_MW124		0089_MW126	0089_MW126		0089_MW126	0089_MW126		0089_MW127	0089_MW127		0089_MW127	0089_MW127	
	Date		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025		21 Mar 2025	21 Mar 2025	
	Field ID		0089_MW109_250321	0089_QC218_250321	RPD (%)	0089_MW124_250321	0089_QC119_250321	RPD (%)	0089_MW124_250321	0089_QC219_250321	RPD (%)	0089_MW126_250321	0089_QC120_250321	RPD (%)	0089_MW126_250321	0089_QC220_250321	RPD (%)	0089_MW127_250321	0089_QC121_250321	RPD (%)	0089_MW127_250321	0089_QC221_250321	RPD (%)
	Sample Type		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
	Lab Report Number		EP2504355	1201174		EP2504355	EP2504355		EP2504355	1201174		EP2504355	EP2504355		EP2504355	1201174		EP2504355	EP2504355		EP2504355	1201174	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																					
PFAS - Perfluoroalkyl Sulfonic Acids																							
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.06	0.42	150	0.07	0.07	0	0.07	0.33	130	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	0.03[#1]	40	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.06	0.41[#1]	149	<0.01	<0.01	0	<0.01	0.02[#1]	67	<0.01	<0.01	0	<0.01	0.02[#1]	67	<0.01	<0.01	0	<0.01	0.02[#1]	67
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	0.09	127	0.02	0.02	0	0.02	0.14	150	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.12	0.69[#1]	141	<0.02	<0.02	0	<0.02	0.05[#1]	86	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.64	4.2[#1]	147	<0.01	<0.01	0	<0.01	0.05[#1]	133	<0.01	<0.01	0	<0.01	0.04[#1]	120	<0.01	<0.01	0	<0.01	0.03[#1]	100
PFAS - Perfluoroalkyl Carboxylic Acids																							
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	0.29	97	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.09	0.52	141	<0.02	<0.02	0	<0.02	0.03	40	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	0.03[#1]	100	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																							
PFAS (Sum of Total)	µg/L	0.01	0.97	6.68	149	0.09	0.09	0	0.09	0.62	149	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	0.85	5.87	149	0.07	0.07	0	0.07	0.43	144	<0.01	<0.01	0	<0.01	0.06	143	<0.01	<0.01	0	<0.01	0.05	133
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	0.44	-	-	-	-	-	0.02	-	-	-	-	-	0.02	-	-	-	-	-	0.02	-
Sum of PFHxS and PFOS	µg/L	0.01	0.7	4.61	147	<0.01	<0.01	0	<0.01	0.07	150	<0.01	<0.01	0	<0.01	0.06	143	<0.01	<0.01	0	<0.01	0.05	133
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	4.64	-	-	-	-	-	0.07	-	-	-	-	-	0.06	-	-	-	-	-	0.05	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

		Location Code	0089_SD316	0089_SD316		0089_SD316	0089_SD316		0089_SD411	0089_SD411		0089_SD411	0089_SD411		0089_SD352	0089_SD352		0089_SD352	0089_SD352	
		Date	11 Mar 2025	11 Mar 2025		11 Mar 2025	11 Mar 2025		11 Mar 2025	11 Mar 2025		11 Mar 2025	11 Mar 2025		12 Mar 2025	12 Mar 2025		12 Mar 2025	12 Mar 2025	
		Field ID	0089_SD316_2 50311	0089_QC105_2 50311	RPD (%)	0089_SD316_2 50311	0089_QC205_2 50311	RPD (%)	0089_SD411_2 50311	0089_QC106_2 50311	RPD (%)	0089_SD411_2 50311	0089_QC206_2 50311	RPD (%)	0089_SD352_2 50312	0089_QC109_2 50312	RPD (%)	0089_SD352_2 50312	0089_QC209_2 50312	RPD (%)
		Sample Type	Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
		Lab Report Number	EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980	
		Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Analyte	**Unit**	**LOR**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
PFAS - Sums																				
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

	Location Code		0089_SD367	0089_SD367	RPD (%)	0089_SD367	0089_SD367	RPD (%)	0089_SD357	0089_SD357	RPD (%)	0089_SD357	0089_SD357	RPD (%)
	Date		13 Mar 2025	13 Mar 2025		13 Mar 2025	13 Mar 2025		14 Mar 2025	14 Mar 2025		14 Mar 2025	14 Mar 2025	
	Field ID		0089_SD367_250313	0089_QC112_250313		0089_SD367_250313	0089_QC212_250313		0089_SD357_250314	0089_QC114_250314		0089_SD357_250314	0089_QC214_250314	
	Sample Type		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D	
	Lab Report Number		EP2503930	EP2503930		EP2503930	1198980		EP2503930	EP2503930		EP2503930	1198980	
	Matrix Type		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Analyte	**Unit**	**LOR**												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	0.0013	0.0011	17	0.0013	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
PFAS - Sums														
PFAS (Sum of Total)	mg/kg	0.0002	0.0013	0.0011	17	0.0013	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	0.0013	0.0011	17	0.0013	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	0.0013	0.0011	17	0.0013	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Appendix C

Results tables

			Well Data			Field data			Field Parameters						
			TOC Elevation	Groundwater Elevation	Screen Interval	Total Well Depth	Standing Water Level	Sample Depth	pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			m AHD		m BGL	m bTOC			pH units	µS/cm	mg/L	mV	°C	mg/L	
Location Code	Date	Sampling Method													Sample Comments
0089_MW010	11 Mar 2025	Hydrasleeve	4.167	0.285	-	8.465	3.882	8	7.49	957	1.1	-99.5	25.9	622	*Clear, colourless, no odour, no sheen, some black sediment on outside of Hydrasleeve*
0089_MW112	21 Mar 2025	Hydrasleeve	3.973	0.588	3 - 6	5.87	3.385	5.3	7.44	541	0.85	-103.1	26.2	352.9	*Moderately cloudy, pale brown, no roots, brown-orange staining on top of Hydrasleeve faint hydrocarbon odour*
0089_MW120	21 Mar 2025	Hydrasleeve	4.409	0.358	2.5 - 5.5	5.699	4.051	5.2	7.24	1,031	2.31	76	22.4	670	*Cloudy pale brown, sulfuric odour, medium sediment load, no sheen, roots on top of Hydrasleeve*
0089_MW121	21 Mar 2025	Hydrasleeve	3.7	0.469	2.7 - 5.7	3.98	3.231	3.5	7.75	541	4.72	31.4	26.7	3,522	*Moderately cloudy, pale brown, no roots, brown-orange staining on top of Hydrasleeve, faint hydrocarbon odour*
0089_MW123	21 Mar 2025	Hydrasleeve	6.62	0.412	4.5 - 8	7.74	6.208	7.2	7.3	2,092	1.76	72.2	23.5	1,362	*Cloudy pale yellow, no sheen, no roots, medium sediment load*
0089_MW124	21 Mar 2025	Hydrasleeve	1.899	0.309	0.75 - 4	4.195	1.59	3.7	7.18	42,058	0.92	-193.3	24.8	27,332	*Clear, colourless, strong sulfidic odour, no roots or sheen*
0089_MW125	19 Mar 2025	Hydrasleeve	1.882	0.312	0.9 - 3.9	4.41	1.57	3.9	7.12	44,826	0.84	-218.6	28.3	29,131	*Clear, colourless, strong sulfidic odour, no sheen, low sediment load*
0089_MW126	21 Mar 2025	Hydrasleeve	1.948	0.293	0.9 - 3.9	4.26	1.655	3.7	7.02	39,199	0.41	-280.1	24.7	25,481	*Clear, colourless, sulfidic odour, no sheen or roots*
0089_MW127	21 Mar 2025	Hydrasleeve	1.771	0.287	0.9 - 3.9	4.205	1.484	3.7	7.07	40,183	0.95	-279.4	25.2	26,126	*Clear, pale yellow, sulfidic odour, no sheen or roots*
0089_MW128	21 Mar 2025	Hydrasleeve	4.537	0.347	2.5 - 5.5	5.85	4.19	5.5	7.28	584	1.33	-93.7	24	379.5	*Pale grey, moderately cloudy, medium sediment load, slightly sulfidic odour, no sheen, roots on top of Hydrasleeve*
0089_MW139	14 Mar 2025	Hydrasleeve	2.273	0.303	2 - 5	4.785	1.97	4.2	7.48	8,364	1.09	-20.3	27.3	5,448	*Clear, pale yellow, no odour, no turbidity, moderate sediment load*
0089_MW141	14 Mar 2025	Hydrasleeve	3.025	0.354	2 - 5	5.16	2.671	4.5	7.08	29,000	1.01	-116.4	25.8	18,847	*Clear, colourless, very slight sulphidic odour, no turbidity, moderate sediment load, organic material within Hydrasleeve*
0089_MW142	14 Mar 2025	Hydrasleeve	2.573	0.366	0.25 - 4	3.75	2.207	3.2	7.24	28,522	1.41	-7.5	27.2	18,559	*Clear, pale yellow, no odour, no turbidity, low sediment load*
0089_MW147	14 Mar 2025	Hydrasleeve	3.423	0.382	2 - 5	5.505	3.041	5	7.13	23,431	0.6	-198	25.2	15,226	*Very pale yellow, clear, strong sulphidic odour, no turbidity, low sediment load*
0089_MW149	14 Mar 2025	Hydrasleeve	2.303	0.389	1 - 4	4.38	1.914	3.8	7.39	27,746	1.8	33.9	30.5	18,035	*Clear, pale yellow, no odour, no turbidity, low sediment load*
0089_MW158	12 Mar 2025	Hydrasleeve	14.541	0.436	-	15.72	14.105	15	7.22	13,969	1.11	82.4	24.3	9,081	*Pale grey, no odour, moderate turbidity, low sediment load*
0089_MW161	12 Mar 2025	Hydrasleeve	17.225	0.565	-	18.345	16.66	17.5	7.48	3,252	2.95	80.4	22.4	2,115	*Pale grey, moderate organic odour, roots on Hydrasleeve, low to moderate turbidity, low sediment load*
0089_MW166	12 Mar 2025	Hydrasleeve	11.89	0.692	10 - 13	12.32	11.198	11.5	7.29	5,519	1.82	100.3	23	3,591	*Pale brown, no odour, low to moderate turbidity, low sediment load*
0089_MW171	12 Mar 2025	Hydrasleeve	29.238	0.54	28.5 - 31.5	32.01	28.698	31.5	7.4	7,037	2.39	73.5	22.4	4,577	*Clear, colourless, slight organic odour, no turbidity, low sediment load*
0089_MW173	20 Mar 2025	Hydrasleeve	10.08	0.545	-	11.31	9.535	10.8	7.14	4,303	3.62	68.6	23.3	2,797	*Clear, colourless, slightly organic odour, low sed load, no sheen*
0089_MW193	18 Mar 2025	Hydrasleeve	11.86	0.68	10.5 - 13.5	12.36	11.18	11.8	7.25	2,540	2.33	35.2	24.3	1,651	*Clear, colourless, low sediment load, sulfidic odour, no roots, no sheen*
0089_MW195S	19 Mar 2025	Hydrasleeve	4.363	0.478	3.5 - 6.5	7.74	4.07	7	7.29	4,518	2	47.4	24.9	2,703	*Cler, colourless, slightly organic odour, no sheen, low sediment load*
0089_MW195D	19 Mar 2025	Hydrasleeve	4.363	0.478	10 - 13	12.37	3.885	11.8	7.31	24,123	1.65	-45.1	22.2	-	-
0089_MW199	18 Mar 2025	Hydrasleeve	11.8	0.31	-	17.44	11.49	17	7.17	20,217	0.37	-242.6	25.6	13,141	*Highly organic and sulfidic odour. Clear and pale grey in colour. No sheen. No roots. No sediment load*
0089_MW200	19 Mar 2025	Hydrasleeve	2.07	0.271	-	2.61	1.799	2	7.58	9,163	3.12	62.7	24.8	5,955	*Clear, colourless, salty and organic odour, low sed load, no sheen*
0089_MW202	20 Mar 2025	Hydrasleeve	2.12	0.507	-	2.907	1.613	2.5	7.57	1,583	3.06	52	22.7	1,029	*Clear, colourless, slightly salty and organic odour, no sheen, low sediment load*
0089_MW203	18 Mar 2025	Hydrasleeve	10.855	0.36	-	12.89	10.495	12.4	7.26	845	3.67	47.9	24.4	550	*Medium sediment load (fine sediment), medium turbidity, clear and colourless with pale brown at bottom half of Hydrasleeve (sediment), slightly organic odour*
0089_MW214	20 Mar 2025	Hydrasleeve	8.075	0.45	5.5 - 9	9.077	7.625	8.5	7.24	3,016	2.32	-80.5	21.5	1,270	*Clear, colourless, slightly sulfidic odour, no sheen, low sed load, no roots, dark sediment settled at bottom of Hydrasleeve*
0089_MW215	20 Mar 2025	Hydrasleeve	3.794	0.354	1.5 - 4.5	4.805	3.44	4.3	7.36	1,948	1.56	-90.3	21.9	1,270	*Clear, colourless, sulfidic odour, no sheen, low sed load, roots on top of Hydrasleeve*
0089_MW216	20 Mar 2025	Hydrasleeve	8.329	0.481	6 - 9	9.44	7.848	9	7.45	3,606	2.33	55.2	20.3	2,344	*Clear, colourless, odourless, no sheen, low sed load*
0089_MW217	20 Mar 2025	Hydrasleeve	8.847	0.493	6.5 - 9.5	9.69	8.354	9.2	7.49	815	6.71	45.5	21.7	528	*Brown/grey and cloudy, high sediment load, no odour, no sheen, no roots*
0089_MW220	20 Mar 2025	Hydrasleeve	7.054	0.429	-	8.25	6.625	7.7	7.33	1,029	3.7	-77.3	22.7	669	*Moderate cloudiness, grey, sulfidic & hydrocarbon odour, dark sediment at bottom of Hydrasleeve*
0089_MW224	20 Mar 2025	Hydrasleeve	13.372	0.452	11.25 - 14.25	14.24	12.92	13.7	7.79	1,402	5.61	18.3	23.8	910	*Clear and colourless, low sediment load, no odour/very slight hydrocarbon odour, no sheen or staining*
0089_MW225	11 Mar 2025	Hydrasleeve	4.066	0.298	2 - 5	5.405	3.768	3	7.38	5,060	0.72	8.7	23.9	3,289	*Strong organic odour, roots present, pale yellow, clear, no sediment load*
0089_MW226	10 Mar 2025	Hydrasleeve	1.749	0.119	0.75 - 3.8	4.07	1.63	3.5	7.4	11,722	0.91	80.9	27.5	7,056	*Clear, yellow, no odour, no sheen, some organic matter floating throughout*
0089_MW227	20 Mar 2025	Hydrasleeve	2.961	0.256	1.25 - 4.2	4.105	2.705	3.5	7.25	4,124	4.42	53.4	22.2	2,683	*Clear, pale green colour, no sheen, roots on top of Hydrasleeve, sulfidic odour*
0089_MW228	10 Mar 2025	Hydrasleeve	2.23	0.12	0.75 - 3.75	4.055	2.11	3.5	7.36	10,733	0.9	80.7	28.3	7,023	*Clear, yellow, no odour, no sheen, some organic matter floating throughout*
0089_MW236	18 Mar 2025	Hydrasleeve	4.642	0.603	-	5.063	4.039	4.5	7.45	807	1.37	36.1	22	525	*Low sediment load, pale brown grey, slightly coloury, no sheen, detectable but faint hydrocarbon odour*
0089_MW238	17 Mar 2025	Hydrasleeve	4.827	0.407	-	7.045	4.42	6.5	7.53	697	0.94	-37	21.9	453.6	*Clear, colourless, sulfidic odour, roots on top of Hydrasleeve, no sheen*
0089_MW239	17 Mar 2025	-	-	-	-	-	-	-	-	-	-	-	-	-	*Well was buried by infill sand, Well dry. Not Sampled*
0089_MW240	17 Mar 2025	Hydrasleeve	4.483	0.421	-	6.805	4.062	6.3	7.53	879	2	38.1	23.3	571	*Moderately cloudy, colourless w brown sediment settled at bottom, weak hydrocarbon odour*
0089_MW242	17 Mar 2025	Hydrasleeve	3.539	0.355	-	4.26	3.184	3.5	7.82	472	1.4	-127.1	26.8	307.4	*Very cloudy and dark grey brown, sulfidic odour, no sheen*
0089_MW243	17 Mar 2025	Hydrasleeve	4.892	0.401	-	7.002	4.491	6.5	7.59	1,412	1.7	60.4	21.2	914	*Clear, colourless, odourless, organic sediment settled at bottom of sleeve*
0089_MW245	17 Mar 2025	Hydrasleeve	4.551	0.378	-	6.335	4.173	5.8	7.48	456	2	-78	21.5	296.4	*Clear, light pale grey, strong hydrocarbon odour, no sheen*
0089_MW249	17 Mar 2025	Hydrasleeve	5.227	0.277	3.5 - 6.5	6.26	4.95	5.5	7.22	1,435	1.16	-101.6	23.9	933	*Cloudy and grey brown, hydrocarbon odour,*
0089_MW255	18 Mar 2025	Hydrasleeve	4.609	1.366	3 - 6	4.289	3.243	4	8	374.9	2.7	28.3	25.2	243.7	*High sediment load, clear and colourless with organic brown sediment throughout (likely collected when pulling Hydrasleeve), organic odour*
0089_MW256	18 Mar 2025	Hydrasleeve	3.84	0.529	3 - 6	5.67	3.311	5	7.06	1,870	0.83	-118.2	21.7	1,215	*Clear, colourless, sulfuric odour, no sheen, low sed load*
0089_MW257	18 Mar 2025	Hydrasleeve	3.806	0.496	2.7 - 5.7	5.29	3.31	4.8	7.74	524	3.29	42.9	23.2	340.5	*Clear, colourless, sulfidic and organic odour, no sheen, no roots, no sediment load*
0089_MW258	18 Mar 2025	Hydrasleeve	4.043	0.688	3 - 6	5.354	3.355	4.8	7.07	1,098	1.25	35.5	23.2	1,098	*Clear, colourless, sulfidic odour, no sheen, low sed load, large amount of roots on top of Hydrasleeve*
0089_MW259	18 Mar 2025	Hydrasleeve	3.8	0.481	2.5 - 5.5	5.38	3.319	4.9	7.4	622	3.2	-0.8	21.3	404.7	*Clear, colourless, sulfidic odour, no sheen, low sed load, roots on top of Hydrasleeve, dark brown sediment at bottom of Hydrasleeve*
0089_MW269	17 Mar 2025	Hydrasleeve	4.153	-0.652	2.5 - 5.5	8.205*	4.805	5	7.23	1,537	1.7	-96.2	25.9	1,000	*Clear and colourless, slightly salty and organic odour, no staining, no sediment load*
0089_MW288	18 Mar 2025	Hydrasleeve	4.003	0.408	2.25 - 5.25	5.88	3.595	5.3	7.58	1,063	1.83	-26.5	25.6	692	*Clear and colourless, slightly organic and salty odour, no sheen, no roots*
0089_MW289	20 Mar 2025	Hydrasleeve	4.495	0.435	3.25 - 6.25	5.05	4.06	4.5	7.4	839	1.96	33.6	22.9	545	*High sediment load, brown, odourless, no sheen, large amount of sand. Well cap was covered by sand and sand had fallen down well*
0089_MW468	19 Mar 2025	Hydrasleeve			0 - 1.2	2.85	2.101	2.3	7.39	20,544	3.49	24.3	25.7	13,365	*Moderately cloudy, pale brown, salty and organic odour, medium sed load, no sheen*
0089_MW496	17 Mar 2025	Hydrasleeve	5.092	0.287	3.5 - 8	8.205	4.805	7.5	7.35	1,408	0.46	-215.5	24.7	916	*Clear and colourless, hydrocarbon odour, no staining, no sediment load*
0089_MW500	21 Mar 2025	Hydrasleeve	3.692	0.438	2 - 6.5	5.71	3.254	5.2	7.29	669	1.37	58.5	23.7	435.5	*Moderately cloudy, pale grey, medium sediment load, yellow sand deposited at bottom of Hydrasleeve, might hydrocarbon odour, no sheen, roots on top of Hydrasleeve*
0089_MW516	17 Mar 2025	Hydrasleeve	6.37	0.292	4.5 - 7.5	7.881	6.078	7	7.29	976	0.81	-77.7	27.1	634	*Cloudy pale brown, hydrocarbon odour, medium sediment load*
0089_MW539	20 Mar 2025	Hydrasleeve	5.776	0.448	16.5 - 20.5	-	5.328	6.5	7.62	22,009	2.67	-63.8	23	14,306	*Clear and colourless, low sediment load, hydrocarbon odour, no sheen or staining*
0089_MW553	11 Mar 2025	Hydrasleeve	3.801	0.296	3 - 6	5.73	3.505	5	7.42	933	1.84	-113.5	25.4	607	*Hydrocarbon odour, light sediment load, slightly cloudy pale grey, no sheen, dark grey sediment at bottom of sleeve*

*Erroneous well depth. Well depth recorded in June 2025 was 5.852.

		Field Parameters						
		pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
		pH units	µS/cm	mg/L	mV	°C	mg/L	
Location Code	Date							Sample Comments
0089_PW304	13 Mar 2025	7.66	4,180	3	47.7	30.4	2,708	*very pale grey, slight organic odour (salty), low to moderate turbidity, moderate sediment load*
0089_PW306	11 Mar 2025	7.79	55,729	4.07	113	25.3	36,242	*clear, colourless, slightly organic salty odour*
0089_PW307	11 Mar 2025	7.78	55,379	3.92	64	24.7	36,025	*clear, colourless, slightly organic salty odour*
0089_PW308	11 Mar 2025	7.97	55,589	3.3	83.8	29.2	30,164	*clear, colourless, slightly organic salty odour*
0089_PW314	11 Mar 2025	7.71	55,611	1.56	-98	24.1	36,455	*moderately cloudy, pale grey, slight organic and salty odour, moderate sediment load*
0089_PW315	11 Mar 2025	7.65	42,529	3.12	53.2	29.3	27,644	*clear, colourless, slightly organic salty odour*
0089_PW316	11 Mar 2025	7.79	55,750	3.84	85.7	30	36,252	*clear, colourless, slightly organic salty odour*
0089_PW329	14 Mar 2025	7.46	59,490	2.16	93.5	24	38,679	*pale yellow grey, clear, no odour, low turbidity, low sediment load*
0089_PW330	14 Mar 2025	7.61	58,189	3.53	92.3	25.1	37,797	*colourless, clear, no odour, low turbidity, low sediment load*
0089_PW331	14 Mar 2025	7.31	58,893	4.02	88.2	24.5	38,276	*colourless, clear, no odour, low turbidity, low sediment load*
0089_PW335	14 Mar 2025	7.42	42,781	4.07	54.7	24.9	27,808	*pale yellow, clear, no odour, low turbidity, moderate sediment load, organic matter present*
0089_PW340	14 Mar 2025	7.59	39,690	3.76	75.7	26.4	25,798	*pale yellow, clear, no odour, low turbidity, moderate sediment load, organic matter present*
0089_PW341	14 Mar 2025	7.46	34,049	4.51	78.5	26.8	22,132	*colourless, clear, no odour, low turbidity, low sediment load, organic matter present*
0089_PW345	13 Mar 2025	7.35	14,004	2.11	96.2	26	9,089	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW346	13 Mar 2025	7.06	38,559	0.88	-158.8	25.3	25,062	*cloudy, brown, strong sulphidic odour, high turbidity, moderate sediment load*
0089_PW350	12 Mar 2025	7.96	55,419	3.52	121.5	24.2	36,036	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW351	12 Mar 2025	7.96	55,677	3.33	99.8	23.8	36,200	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW352	12 Mar 2025	7.95	55,622	4.99	84.4	24.3	-	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW356	14 Mar 2025	7.49	57,947	3.23	94.6	24.3	37,608	*colourless, clear, no odour, low turbidity, low sediment load, organic matter present*
0089_PW357	14 Mar 2025	7.45	63,354	3.39	87.9	25.4	41,152	*colourless, clear, no odour, low turbidity, low sediment load*
0089_PW358	14 Mar 2025	7.55	56,570	2.19	91.5	25.5	36,763	*pale yellow, clear, no odour, low turbidity, low sediment load*
0089_PW362	14 Mar 2025	7.58	41,666	4.24	79.7	26.3	27,083	*colourless, clear, no odour, low turbidity, moderate sediment load, organic matter present*
0089_PW363	14 Mar 2025	7.37	33,879	4.11	79	25.9	22,021	*colourless, clear, no odour, low turbidity, low sediment load*
0089_PW364	14 Mar 2025	7.5	45,434	3.47	74.3	25.6	29,532	*pale yellow, clear, no odour, low turbidity, moderate sediment load, organic matter present*
0089_PW367	13 Mar 2025	7.49	7,711	2.68	73.3	26.6	5,018	*cloudy, pale orange, slight organic odour (salty), low to moderate turbidity, low sediment load*
0089_PW368	13 Mar 2025	7.52	1,229	1.33	37	27.7	799	*very pale grey, slight organic odour (salty), low to moderate turbidity, moderate sediment load*
0089_PW369	13 Mar 2025	7.45	12,567	2.51	99.8	25.1	8,201	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW374	10 Mar 2025	7.76	55,365	4.65	113.6	22.9	35,937	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW375	10 Mar 2025	7.46	10,266	2.66	96	25.2	6,673	*pale brown, slight organic odour (salty), low to moderate turbidity, low sediment load*
0089_PW378	10 Mar 2025	7.29	21,429	25.4	105.1	23.2	13,929	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW380	12 Mar 2025	7.82	55,576	4.58	96.9	25.2	36,128	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW401	12 Mar 2025	7.88	55,654	3.74	107.3	24.3	36,182	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW405	10 Mar 2025	7.4	15,755	1.21	61.3	24.9	10,202	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW407	10 Mar 2025	7.52	54,522	2.03	120.6	25.1	35,408	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW409	10 Mar 2025	7.39	44,789	2.35	98.9	27	29,080	*clear, colourless, slight organic odour (salty), no turbidity, low sediment load*
0089_PW411	11 Mar 2025	7.76	54,781	3.87	95.6	25.8	35,572	*clear, colourless, slightly organic salty odour*
0089_PW413	11 Mar 2025	7.76	55,716	3.41	96.3	26.1	36,212	*clear, colourless, slightly organic salty odour*
0089_PW415	11 Mar 2025	8.17	55,847	3.35	89.4	27.8	36,304	*clear, colourless, slightly organic salty odour*

			Field Parameters							
			pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	DO (%S) (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			pH units	µS/cm	mg/L	%S	mV	°C	mg/L	
Location Code	Date	Sampling Method								Sample Comments
0089_SW130	14 Mar 2025	Grab	7.9	55,617	4.9	73.7	64.4	25.4	36151	*pale brown, colourless, slightly salty and organic odour, high turbidity, high sediment load with dense organic matter*
0089_SW132	14 Mar 2025	Grab	7.93	55,788	5.27	79.7	83.6	25.8	36262	*pale brown, colourless, slightly salty and organic odour, high turbidity, high sediment load with dense organic matter*
0089_SW134	14 Mar 2025	Grab	7.97	55,825	4.98	75.2	87.8	25.6	36236	*pale brown, colourless, slightly salty and organic odour, high turbidity, high sediment load with dense organic matter*
0089_SW150	14 Mar 2025	Grab	7.93	55,193	4.52	64.7	82.9	23.7	35900	*clear, colourless, slightly salty and organic odour*
0089_SW152	14 Mar 2025	Grab	7.98	55,226	4.07	59.6	82.8	24.2	35908	*clear, colourless, slightly salty and organic odour*
0089_SW154	14 Mar 2025	Grab	7.98	55,453	4.66	67.6	91.6	23.8	36060	*clear, colourless, slightly salty and organic odour*
0089_SW156	14 Mar 2025	Grab	7.97	55,668	4.71	68.5	90.7	24	36197	*clear, colourless, slightly salty and organic odour*
0089_SW305	13 Mar 2025	Grab	8.05	55,864	5.65	86.9	25	27.7	36136	*clear, colourless, no sheen, slight organic odour (salty), low tutbidity*
0089_SW309	10 Mar 2025	Grab	7.97	54,881	4.32	63.9	119.6	24.8	35684	*clear, colourless, slight organic odour (salty), low turbidity, low sediment load*
0089_SW310	10 Mar 2025	Grab	8.04	55,723	4.1	65.3	73.5	25.4	36205	*pale yellow to clear, slight organic odour (salty), moderate sediment load, low turbidity*
0089_SW311	10 Mar 2025	Grab	8.08	55,515	5.76	86.2	86.6	28.6	36086	*clear, slight organic odour (salty), moderate sediment load, low turbidity*
0089_SW317	10 Mar 2025	Grab	8.12	55,529	5.65	84	109.3	24.7	36094	*clear, colourless, slight organic odour (salty), low turbidity, low sediment load*
0089_SW318	10 Mar 2025	Grab	8.12	54,534	6.69	84.4	111.9	24.3	33512	*clear, colourless, slight organic odour (salty), low turbidity, low sediment load*
0089_SW319	10 Mar 2025	Grab	8.16	55,636	6.46	83.5	111	23	18633	*clear, colourless, slight organic odour (salty), low turbidity, low sediment load*
0089_SW353	12 Mar 2025	Grab	8.07	55,306	5.22	79.2	119	25	35979	*clear, colourless, slightly organic and salty odour*
0089_SW370	13 Mar 2025	Grab	7.94	55,583	3.7	55.6	84.2	26.8	36137	*clear, colourless, no sheen, slight organic odour, low tutbidity*
0089_SW371	13 Mar 2025	Grab	7.88	54,550	3.81	59	87.5	28.3	35477	*clear, colourless, no sheen, slight organic odour, low tutbidity*
0089_SW372	13 Mar 2025	Grab	8.07	55,919	5.64	85.7	23.9	27.8	36334	*clear, colourless, no sheen, slight organic odour (salty), low tutbidity*
0089_SW373	13 Mar 2025	Grab	8.08	55,214	5.31	80.3	26.2	27.8	36400	*clear, colourless, no sheen, slight organic odour (salty), low tutbidity*
0089_SW382	12 Mar 2025	Grab	8.12	55,215	4.71	67.3	99.4	23.8	35899	*clear, colourless, slight organic odour (salty), moderate sediment load, low turbidity*
0089_SW384	12 Mar 2025	Grab	8.04	55,214	4.96	76.2	120	25	35169	*clear, colourless, slightly organic and salty odour*
0089_SW406	10 Mar 2025	Grab	7.38	55,662	6.44	94.9	82.8	24.2	36174	*clear, colourless, slight organic odour (wrack), low turbidity, low sediment load*
0089_SW408	10 Mar 2025	Grab	7.84	55,195	7.19	99.7	136.7	20.9	-	*clear, colourless, no turbidity, no sheen, no odour, mod sediment load, ocean water*
0089_SW410	10 Mar 2025	Grab	8.04	55,480	3.57	58.3	101.8	28.8	36056	*clear, colourless, slight organic odour (wrack), low turbidity, low sediment load*
0089_SW412	10 Mar 2025	Grab	8.19	55,522	4.67	72.1	94.7	25.8	36089	*clear, colourless, slightly organic and salty odour*
0089_SW414	10 Mar 2025	Grab	8.14	55,648	5.5	88.7	93.5	26.9	36174	*clear, colourless, slightly organic and salty odour*
0089_SW416	10 Mar 2025	Grab	8.19	55,566	4.82	74.2	91.4	26.7	36109	*clear, colourless, slightly organic and salty odour*

Analyte	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)																
Monitoring Zone				**Accommodation Area**		**AVCAT Storage and Fuel Farm**										**Demolition Ground**		**Demolition Ground**		**Demolition Ground**
Location Code				MW288	MW289	MW233	MW236	MW238	MW240	MW242	MW243	MW245	MW249	MW496	MW516	MW139	MW141	MW142	MW147	MW149
Sample Type				Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Date				18 Mar 2025	20 Mar 2025	18 Mar 2025	18 Mar 2025	17 Mar 2025	17 Mar 2025	17 Mar 2025	17 Mar 2025	17 Mar 2025	17 Mar 2025	17 Mar 2025	17 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025
Field ID				0089_MW288_250318	0089_MW289_250320	0089_MW233_250318	0089_MW236_250318	0089_MW238_250317	0089_MW240_250317	0089_MW242_250317	0089_MW243_250317	0089_MW245_250317	0089_MW249_250317	0089_MW496_250317	0089_MW516_250317	0089_MW139_250314	0089_MW141_240314	0089_MW142_250314	0089_MW147_250314	0089_MW149_250314
Lab Report				EP2504355	EP2504355	EP2504355	EP2504355	EP2504356	EP2504356	EP2504356	EP2504356	EP2504356	EP2504356	EP2504356	EP2504356	EP2504110	EP2504110	EP2504110	EP2504110	EP2504110
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	<0.02	0.05	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	0.03	<0.02	0.76	0.08	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.20[#1]	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.20[#1]	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	<0.02	0.28	<0.02	0.25	<0.02	<0.02	<0.02	<0.02	0.08	<0.02	<0.02	0.6	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	0.12	0.96	0.11	40.1	<0.01	<0.01	<0.01	0.01	0.02	0.02	7.02	2.31	<0.01	64	1.08	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.18	0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	0.04	<0.02	0.18	<0.02	0.27	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	1.46	0.1	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	<0.01	0.24	0.02	11.4	0.03	4.48	<0.01	0.04	<0.01	0.13	0.85	0.24	<0.01	21.8	0.74	0.08	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		<0.02	<0.02	<0.02	0.2	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.45	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	0.04	<0.02	0.51	<0.02	0.19	<0.02	<0.02	<0.02	0.02	0.12	<0.02	<0.02	17.4	0.11	0.06	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.02	1.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	<0.01	0.02	<0.01	2.26	<0.01	0.17	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	<0.01	1.46	0.02	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		<0.02	<0.02	<0.02	0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	1.74	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01		0.12	1.35	0.13	56.5	0.03	5.43	<0.01	0.05	0.02	0.17	8.28	2.58	<0.01	110	2.15	0.14	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		0.12	1.31	0.13	54.7	0.03	4.91	<0.01	0.05	0.02	0.17	8.14	2.58	<0.01	108	2.03	0.14	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		0.12	1.2	0.13	51.5	0.03	4.48	<0.01	0.05	0.02	0.15	7.87	2.55	<0.01	85.8	1.82	0.08	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR

#2 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

Analyte	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)																	
Monitoring Zone				**Dredged Sediments**		**Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage**							**Fire Training Area**							
Location Code				MW268	MW269	MW010	MW255	MW256	MW257	MW258	MW259	MW553	MW109	MW109	MW109	MW112	MW120	MW120	MW120	MW121
Sample Type				Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Blind Duplicate	Split Duplicate	Primary
Date				17 Mar 2025	17 Mar 2025	11 Mar 2025	18 Mar 2025	18 Mar 2025	18 Mar 2025	18 Mar 2025	18 Mar 2025	11 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025
Field ID				0089_MW268_250317	0089_MW269_250317	0089_MW010_250311	0089_MW255_250318	0089_MW256_250318	0089_MW257_250318	0089_MW258_250318	0089_MW259_250318	0089_MW553_250311	0089_MW109_250321	0089_QC118_250321	0089_QC218_250321	0089_MW112_250321	0089_MW120_250321	0089_QC117_250321	0089_QC217_250321	0089_MW121_250321
Lab Report				EP2504356	EP2504356	EP2503930	EP2504355	EP2504355	EP2504355	EP2504355	EP2504355	EP2503930	EP2504355	EP2504355	1201174	EP2504355	EP2504355	EP2504355	1201174	EP2504355
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	0.22	0.05	<0.02	0.42	1.77	<0.02	1.13	<0.02	<0.02	0.06	0.07	0.42	0.12	<0.02	<0.02	<0.01	0.13
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.20[#1]	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.20[#1]	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	0.22	0.12	0.31	<0.02	<0.02	<0.02	<0.02	0.03[#2]	0.43	1.2	1.23	<0.01	0.14
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	<0.01	0.45	<0.01	0.5	9.13	0.41	8.07	0.07	<0.01	0.06	0.06	0.41[#2]	31.2	1.72	1.71	<0.01	8.34
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.08	<0.02	<0.02	0.14	0.55	<0.02	0.38	<0.02	<0.02	<0.02	<0.02	0.09	<0.02	<0.02	<0.02	<0.01	0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.23	0.07	<0.02	0.46	1.76	0.02	0.99	<0.02	<0.02	0.12	0.12	0.69[#2]	0.32	0.03	0.03	<0.01	0.11
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	0.72	0.75	<0.01	7.87	7.91	1.18	4.07	0.04	<0.01	0.64	0.62	4.2[#2]	4.04	1.96	1.98	<0.01	1.32
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	<0.1	0.1	0.5	0.1	0.5	<0.1	<0.1	<0.1	<0.1	0.29	0.2	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		<0.02	<0.02	<0.02	0.13	0.32	0.03	0.33	<0.02	<0.02	<0.02	<0.02	<0.05	0.59	<0.02	<0.02	<0.05	0.13
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		0.22	0.07	<0.02	0.87	3.6	0.25	2.17	<0.02	<0.02	0.09	0.09	0.52	1.61	0.06	0.06	<0.01	0.35
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.04	<0.02	<0.02	<0.01	0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	<0.01	0.01	<0.01	0.05	0.34	0.13	0.27	<0.01	<0.01	<0.01	<0.01	0.03[#2]	0.87	0.43	0.52	<0.01	0.16
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		0.05	0.02	<0.02	0.21	0.84	0.42	1.25	0.03	<0.02	<0.02	<0.02	<0.01	0.39	<0.02	<0.02	<0.01	0.19
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	0.58	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	0.23	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	0.06
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01		1.52	1.42	<0.01	10.8	27.4	2.66	19.6	0.14	<0.01	0.97	0.96	6.68	40.5	5.4	5.53	<0.1	11
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		1.21	1.35	<0.01	10.2	24.6	2.52	18	0.14	<0.01	0.85	0.84	5.87	39.1	4.17	4.27	<0.05	10.7
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	-	-	-	0.44	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01		0.72	1.2	<0.01	8.37	17	1.59	12.1	0.11	<0.01	0.7	0.68	4.61	35.2	3.68	3.69	<0.01	9.66
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	-	-	-	4.64	-	-	-	<0.01	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR

#2 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

			Monitoring Zone	Fire Training Area														Helicopter Support Facility	
			Location Code	MW123	MW123	MW123	MW124	MW124	MW124	MW125	MW126	MW126	MW126	MW127	MW127	MW127	MW128	MW500	MW214	MW215
			Sample Type	Primary	Blind Duplicate	Split Duplicate	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary
			Date	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	19 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	21 Mar 2025	20 Mar 2025	20 Mar 2025
			Field ID	0089_MW123_ 250321	0089_QC116_2 50321	0089_QC216_2 50321	0089_MW124_ 250321	0089_QC119_2 50321	0089_QC219_2 50321	0089_MW125_ 250319	0089_MW126_ 250321	0089_QC120_2 50321	0089_QC220_2 50321	0089_MW127_ 250321	0089_QC121_2 50321	0089_QC221_2 50321	0089_MW128_ 250321	0089_MW500_ 250321	0089_MW214_ 250320	0089_MW215_ 250320
			Lab Report	EP2504355	EP2504355	1201174	EP2504355	EP2504355	1201174	EP2504355	EP2504355	EP2504355	1201174	EP2504355	EP2504355	1201174	EP2504355	EP2504355	EP2504355	EP2504355
Analyte	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)																	
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	0.22	0.22	0.27	0.07	0.07	0.33	0.31	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	0.67	<0.02	0.14
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.20[#1]	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		0.03	0.04	0.04[#2]	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	2.76	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	0.05	0.06	0.07[#2]	<0.01	<0.01	0.02[#2]	<0.01	<0.01	<0.01	0.02[#2]	<0.01	<0.01	0.02[#2]	1.19	53	<0.01	0.02
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.03	0.03	0.04	0.02	0.02	0.14	0.1	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	0.21	<0.02	0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.18	0.21	0.21[#2]	<0.02	<0.02	0.05[#2]	0.31	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	0.47	<0.02	0.22
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	1.04	1.07	1.2[#2]	<0.01	<0.01	0.05[#2]	1.14	<0.01	<0.01	0.04[#2]	<0.01	<0.01	0.03[#2]	0.02	12.1	<0.01	1.22
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	0.06	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.1	0.2	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		0.04	0.05	0.05[#2]	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	0.2	<0.02	0.09
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		0.23	0.22	0.23	<0.02	<0.02	0.03	0.37	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	0.04	2.04	<0.02	0.38
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	0.08	0.06	0.09[#2]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.9	<0.01	0.02
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		0.06	0.07	0.07	<0.02	<0.02	<0.01	0.06	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	0.35	<0.02	0.1
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01		1.96	2.03	2.33	0.09	0.09	0.62	2.29	<0.01	<0.01	<0.1	<0.01	<0.01	<0.1	1.25	72.9	<0.01	2.21
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		1.72	1.75	2.04	0.07	0.07	0.43	1.88	<0.01	<0.01	0.06	<0.01	<0.01	0.05	1.25	69.5	<0.01	1.97
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	0.16	-	-	0.02	-	-	-	0.02	-	-	0.02	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		1.09	1.13	1.27	<0.01	<0.01	0.07	1.14	<0.01	<0.01	0.06	<0.01	<0.01	0.05	1.21	65.1	<0.01	1.24
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	1.36	-	-	0.07	-	-	-	0.06	-	-	0.05	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR

#2 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

			Monitoring Zone	Helicopter Support Facility											WWTP					
			Location Code	MW216	MW217	MW220	MW224	MW225	MW226	MW227	MW228	MW228	MW228	MW539	MW158	MW158	MW158	MW161	MW166	MW171
			Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary
			Date	20 Mar 2025	20 Mar 2025	20 Mar 2025	20 Mar 2025	11 Mar 2025	10 Mar 2025	20 Mar 2025	10 Mar 2025	10 Mar 2025	10 Mar 2025	20 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025
			Field ID	0089_MW216_250320	0089_MW217_250320	0089_MW220_250320	0089_MW224_250320	0089_MW225_250311	0089_MW226_250310	0089_MW227_250320	0089_MW228_250310	0089_QC103_250310	0089_QC203_250310	0089_MW539_250320	0089_MW158_250312	0089_QC110_250312	0089_QC210_250312	0089_MW161_250312	0089_MW166_250312	0089_MW171_250312
			Lab Report	EP2504355	EP2504355	EP2504355	EP2504355	EP2503930	EP2503930	EP2504355	EP2503930	EP2503930	1198980	EP2504355	EP2503930	EP2503930	1198980	EP2503930	EP2503930	EP2503930
Analyte	**Unit**	**LOR**	ADWG 2011 Health (v4.0 updated June 2025)																	
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	0.11	<0.02	0.17	<0.02	<0.02	<0.02	<0.02	0.28	0.32	0.42	0.17	<0.02	<0.02	<0.01	<0.02	0.11	1.37
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.04[#1]	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	0.16	0.97
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	0.1	0.04	9.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.3	<0.01	<0.01	<0.01	0.37	6.18	2.42
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.04	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	0.07	0.06	0.13	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	1.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.09	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	0.18	0.21	0.24[#2]	0.28	<0.02	<0.02	<0.01	<0.02	0.03	0.8
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	1.09	0.02	0.98	<0.01	<0.01	0.02	<0.01	0.59	0.78	0.94[#2]	0.84	<0.01	<0.01	<0.01	0.34	0.74	5.43
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05		3.1	1.3	0.2	<0.1	<0.1	<0.1	<0.1	1.1	1.2	1.8	<0.1	<0.1	<0.1	<0.05	<0.1	0.1	0.6
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		1.58	1.29	0.11	<0.02	<0.02	<0.02	<0.02	0.99	1	1.4[#2]	0.12	<0.02	<0.02	<0.05	0.02	0.15	0.18
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		9.28	5.45	0.32	<0.02	<0.02	<0.02	<0.02	3.66	4.86	5.4	0.49	<0.02	<0.02	<0.01	0.05	0.29	1.62
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	0.03	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	0.08	0.39	0.08	<0.01	<0.01	<0.01	<0.01	0.3	0.29	0.34[#2]	0.1	<0.01	<0.01	<0.01	0.03	0.1	0.44
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		10.7	6.68	0.32	<0.02	<0.02	<0.02	<0.02	4.04	4.86	6.2	0.1	<0.02	<0.02	<0.01	0.05	0.35	0.48
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		1.34	19.3	<0.05	<0.05	<0.05	<0.05	<0.05	0.37	0.46	0.69	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01		27.5	34.6	11.5	<0.01	<0.01	0.02	<0.01	11.6	14	17.56	3.46	<0.01	<0.01	<0.1	0.86	8.24	15.3
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		27.4	34.6	11.2	<0.01	<0.01	0.02	<0.01	11.3	13.8	17.19	3.12	<0.01	<0.01	<0.05	0.86	8.02	12.5
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	-	0.34	-	-	-	<0.01	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		1.19	0.06	10	<0.01	<0.01	0.02	<0.01	0.59	0.78	0.94	2.14	<0.01	<0.01	<0.01	0.71	6.92	7.85
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	-	1.28	-	-	-	<0.01	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR

#2 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

			Monitoring Zone	WWTP							
			Location Code	MW173	MW193	MW195D	MW199	MW200	MW202	MW203	MW468
			Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
			Date	20 Mar 2025	20 Mar 2025	19 Mar 2025	18 Mar 2025	19 Mar 2025	20 Mar 2025	18 Mar 2025	19 Mar 2025
			Field ID	0089_MW173_250320	0089_MW193_250320	0089_MW195D_250319	0089_MW199_250318	0089_MW200_250319	0089_MW202_250320	0089_MW203_250318	0089_MW468_250319
			Lab Report	EP2504355	EP2504355	EP2504355	EP2504355	EP2504355	EP2504355	EP2504355	EP2504355
Analyte	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)								
PFAS - Perfluoroalkyl Sulfonic Acids											
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	0.14	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		0.28	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	2.98	1.08	<0.01	<0.01	<0.01	0.03	0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.1	0.37	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	1.72	3.34	<0.01	<0.01	<0.01	<0.01	0.05	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids											
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		0.04	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		0.35	0.55	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	0.17	0.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		0.08	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums											
PFAS (Sum of Total)	µg/L	0.01		5.89	6.31	<0.01	<0.01	<0.01	0.03	0.06	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		5.48	5.67	<0.01	<0.01	<0.01	0.03	0.06	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		4.7	4.42	<0.01	<0.01	<0.01	0.03	0.06	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR

#2 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Health Drinking Water

Monitoring Zone				Accommodation Area	Demolition Ground								
Location Code				PW346	PW329	PW330	PW330	PW330	PW331	PW356	PW357	PW358
Sample Type				Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary
Date				13 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025
Field ID				0089_PW346_250313	0089_PW329_2 50314	0089_PW330_2 50314	0089_QC113_2 50314	0089_QC213_2 50314	0089_PW331_2 50314	0089_PW356_2 50314	0089_PW357_2 50314	0080_PW358_2 50314
Lab Report Number				EP2503930	EP2503930	EP2503930	EP2503930	1198980	EP2504110	EP2503930	EP2503930	EP2503930
Analyte	Unit	LOR	PFAS NEMP / ANZG (2026) Interim marine - 99%	PFAS NEMP 2.0 2020 Recreational Water								
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			0.03	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	1.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	0.20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			0.04	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			1.46	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			1.44	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	1.31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01	-	-	-	-

				Monitoring Zone	**Dredged Sediments**			**Fire Training Area**							**opter Support Fa**
				Location Code	PW374	PW375	PW378	PW335	PW340	PW341	PW362	PW363	PW364	PW306
				Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
				Date	10 Mar 2025	10 Mar 2025	10 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	11 Mar 2025
				Field ID	0089_PW374_250310	0089_PW375_250310	0089_PW378_250310	0089_PW335_250314	0089_PW340_250314	0089_PW341_250314	0089_PW362_250314	0089_PW363_250314	0089_PW364_250314	0089_PW306_250311
				Lab Report Number	EP2503930	EP2503930	EP2503930	EP2504110	EP2504110	EP2504110	EP2504110	EP2504110	EP2504110	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine - 99%**	PFAS NEMP 2.0 2020 Recreational Water										
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			<0.01	0.02	0.12	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	0.02	0.12	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	0.02	0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-	-

				Monitoring Zone	**Helicopter Support Facility**									
				Location Code	PW307	PW308	PW314	PW315	PW316	PW316	PW316	PW405	PW407	PW407
				Sample Type	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Blind Duplicate
				Date	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	10 Mar 2025	10 Mar 2025	10 Mar 2025
				Field ID	0089_PW307_250311	0089_PW308_250311	0089_PW314_250311	0089_PW315_250311	0089_PW316_250311	0089_QC104_250311	0089_QC204_250311	0089_PW405_250310	0089_PW407_250310	0089_QC102_250310
				Lab Report Number	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	1198980	EP2503930	EP2503930	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine - 99%**	PFAS NEMP 2.0 2020 Recreational Water										
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.08	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.06	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	0.4	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	0.34	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	2.04	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	1.53	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	5.03	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	4.97	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	<0.01	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	<0.01	-	-	-

Monitoring Zone				Helicopter Support Facility					WWTP				
Location Code				PW407	PW409	PW411	PW413	PW415	PW304	PW345	PW345	PW345	PW350
Sample Type				Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary
Date				10 Mar 2025	10 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	13 Mar 2025	13 Mar 2025	13 Mar 2025	13 Mar 2025	12 Mar 2025
Field ID				0089_QC202_2 50310	0089_PW409_2 50310	0089_PW411_2 50311	0089_PW413_2 50311	0089_PW415_2 50311	0089_PW304_2 50313	0089_PW345_2 50313	0089_QC111_2 5313	0089_QC211_2 50313	0089_PW350_2 50312
Lab Report Number				1198980	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	1198980	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine - 99%**	PFAS NEMP 2.0 2020 Recreational Water									
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.02	<0.01	0.02	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			<0.1	<0.01	<0.01	<0.01	<0.01	0.05	0.02	<0.01	<0.1	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.05	<0.01	<0.01	<0.01	<0.01	0.05	0.02	<0.01	<0.05	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-	-	-	-	0.02	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.02	<0.01	0.02	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-	-	-	-	0.02	-

				Monitoring Zone	**WWTP**									
				Location Code	PW351	PW352	PW367	PW368	PW369	PW380	PW381	PW381	PW381	PW401
				Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary
				Date	12 Mar 2025	12 Mar 2025	13 Mar 2025	13 Mar 2025	13 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025
				Field ID	0089_PW351_250312	0089_PW352_250312	0089_PW367_250313	0089_PW368_250313	0089_PW369_250313	0089_PW380_250312	0089_PW381_250312	0089_QC108_250312	0089_QC208_250312	0089_PW401_250312
				Lab Report Number	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	1198980	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine - 99%**	PFAS NEMP 2.0 2020 Recreational Water										
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	0.02	0.03	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	0.10	0.03	0.05	<0.01	<0.01	<0.01	<0.1	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	0.08	0.03	0.05	<0.01	<0.01	<0.01	<0.05	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	0.02	0.03	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	<0.01	-

				Monitoring Zone	**Demolition Ground**						**Dredged Sediments**		
				Location Code	SW150	SW150	SW150	SW152	SW154	SW156	SW317	SW318	SW319
				Sample Type	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary
				Date	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	10 Mar 2025	10 Mar 2025	10 Mar 2025
				Field ID	0089_SW150_2 50314	0089_QC115_2 50314	0089_QC215_2 50314	0089_SW152_2 50314	0089_SW154_2 50314	0089_SW156_2 50314	0089_SW317_2 50310	0089_SW318_2 50310	0089_SW319_2 50310
				Lab Report	EP2504110	EP2503930	1198980	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine -**	PFAS NEMP 2.0 2020 Recreational Water									
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-	-	-	-	-

				Monitoring Zone	**Fire Training Area**			**Helicopter Support Facility**					
				Location Code	SW130	SW132	SW134	SW309	SW310	SW311	SW406	SW408	SW408
				Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate
				Date	14 Mar 2025	14 Mar 2025	14 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	10 Mar 2025	10 Mar 2025	10 Mar 2025
				Field ID	0089_SW130_2 50314	0089_SW132_2 50314	0089_SW134_2 50314	0089_SW309_2 50311	0089_SW310_2 50311	0089_SW311_2 50311	0089_SW406_2 50310	0089_SW408_2 50310	0089_QC101_2 50310
				Lab Report	EP2504110	EP2504110	EP2504110	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine -**	PFAS NEMP 2.0 2020 Recreational Water									
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-

				Monitoring Zone	Helicopter Support Facility					WWTP			
				Location Code	SW408	SW410	SW412	SW414	SW416	SW305	SW353	SW353	SW353
				Sample Type	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate
				Date	10 Mar 2025	10 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	13 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025
				Field ID	0089_QC201_2 50310	0089_SW410_2 50310	0089_SW412_2 50311	0089_SW414_2 50311	0089_SW416_2 50311	0089_SW305_2 50313	0089_SW353_2 50312	0089_QC107_2 50312	0089_QC207_2 50312
				Lab Report	1198980	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	1198980
Analyte	Unit	LOR	PFAS NEMP / ANZG (2026) Interim marine -	PFAS NEMP 2.0 2020 Recreational Water									
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-	-	-	-	<0.01
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-	-	-	-	<0.01

				Monitoring Zone	**WWTP**							
				Location Code	SW370	SW371	SW372	SW373	SW382	SW383	SW384
				Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary
				Date	13 Mar 2025	13 Mar 2025	13 Mar 2025	13 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025
				Field ID	0089_SW370_2 50313	0089_SW371_2 50313	0089_SW372_2 50313	0089_SW373_2 50313	0089_SW382_2 50312	0089_SW383_2 50312	0089_SW384_2 50312
				Lab Report	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930
Analyte	**Unit**	**LOR**	**PFAS NEMP / ANZG (2026) Interim marine -**	PFAS NEMP 2.0 2020 Recreational Water							
PFAS - Perfluoroalkyl Sulfonic Acids											
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids											
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums											
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-

		Monitoring Zone	Accommodation Area	Demolition Ground								Dredged Sediments			Fire Training Area	
		Location Code	SD346	SD329	SD330	SD331	SD356	SD357	SD357	SD357	SD358	SD374	SD375	SD378	SD335	SD340
		Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary
		Date	13 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	10 Mar 2025	10 Mar 2025	10 Mar 2025	14 Mar 2025	14 Mar 2025
		Field ID	0089_SD346_250313	0089_SD329_250314	0089_SD330_250314	0089_SD331_250314	0089_SD356_250314	0089_SD357_250314	0089_QC114_250314	0089_QC214_250314	0089_SD358_260314	0089_SD374_250310	0089_SD375_250310	0089_SD378_250310	0089_SD335_250314	0089_SD340_250314
		Lab Report Number	EP2504110	EP2503930	EP2503930	EP2504110	EP2504110	EP2503930	EP2503930	1198980	EP2503930	EP2503930	EP2503930	EP2503930	EP2504110	EP2504110
Analyte	**Unit**	**LOR**														
PFAS - Perfluoroalkyl Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	0.0029	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide																
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids																
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums																
PFAS (Sum of Total)	mg/kg	0.0002	0.0029	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	0.0029	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	0.0029	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-

		Monitoring Zone	Fire Training Area				Helicopter Support Facility									
		Location Code	SD341	SD362	SD363	SD364	SD306	SD307	SD308	SD314	SD315	SD316	SD316	SD316	SD405	SD407
		Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary
		Date	14 Mar 2025	14 Mar 2025	14 Mar 2025	14 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	10 Mar 2025	10 Mar 2025
		Field ID	0089_SD341_2 50314	0089_SD362_2 50314	0089_SD363_2 50314	0089_SD364_2 50314	0089_SD306_2 50311	0089_SD307_2 50311	0089_SD308_2 50311	0089_SD314_2 50311	0089_SD315_2 50311	0089_SD316_2 50311	0089_QC105_ 250311	0089_QC205_ 250311	0089_SD405_2 50310	0089_SD407_2 50310
		Lab Report Number	EP2504110	EP2504110	EP2504110	EP2504110	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	1198980	EP2503930	EP2503930
Analyte	**Unit**	**LOR**														
PFAS - Perfluoroalkyl Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	0.0003	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide																
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids																
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005
PFAS - Sums																
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	0.0003	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	0.0003	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-

		Monitoring Zone	Helicopter Support Facility						WWTP							
		Location Code	SD409	SD411	SD411	SD411	SD413	SD415	SD304	SD345	SD350	SD351	SD352	SD352	SD352	SD367
		Sample Type	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary
		Date	10 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	11 Mar 2025	13 Mar 2025	13 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025	13 Mar 2025
		Field ID	0089_SD409_250310	0089_SD411_250311	0089_QC106_250311	0089_QC206_250311	0089_SD413_250311	0089_SD415_250311	0089_SD304_250313	0089_SD345_250313	0089_SD350_250312	0089_SD351_250312	0089_SD352_250312	0089_QC109_250312	0089_QC209_250312	0089_SD367_250313
		Lab Report Number	EP2503930	EP2503930	EP2503930	1198980	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930	1198980	EP2503930
Analyte	**Unit**	**LOR**														
PFAS - Perfluoroalkyl Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	0.0013
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Perfluoroalkyl Sulfonamide																
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Fluorotelomer Sulfonic Acids																
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
PFAS - Sums																
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	0.0013
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	0.0013
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	0.0013
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	-	-	-	<0.005	-

		Monitoring Zone	WWTP						
		Location Code	SD367	SD367	SD368	SD369	SD380	SD381	SD401
		Sample Type	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary
		Date	13 Mar 2025	13 Mar 2025	13 Mar 2025	13 Mar 2025	12 Mar 2025	12 Mar 2025	12 Mar 2025
		Field ID	0089_QC112_250313	0089_QC212_250313	0089_SD368_250313	0089_SD369_250313	0089_SD380_250312	0089_SD381_250312	0089_SD401_250312
		Lab Report Number	EP2503930	1198980	EP2503930	EP2503930	EP2503930	EP2503930	EP2503930
Analyte	**Unit**	**LOR**							
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	0.0011	<0.005	0.0002	0.0003	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	<0.005	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums									
PFAS (Sum of Total)	mg/kg	0.0002	0.0011	<0.05	0.0002	0.0003	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	0.0011	<0.01	0.0002	0.0003	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	0.0011	<0.005	0.0002	0.0003	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-	-	-

Appendix D

Equipment calibration

Calibration Report

Multi-Parameter Water Quality Instrument

Customer: GHD
Contact: [redacted]

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 23G103457
Cable length: 1m (23G100259)

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	175.50 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 58.71
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 7 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (24G100320)	Check Temp NATA	Room Temp	23.4	0	°C	NA	23.4	°C
pH (22M)	pH 7.00	398528	7.01	-18.70	mV	7.02	7.01	pH
pH (22M)	pH 4.00	401033	4.00	156.80	mV	4.02	4.00	pH
Conductivity (24G100320)	2764 µs/cm at 25°C	24/0107	2764	GLP	4.93	2790	2764	µs/cm
ORP (23A)	Zobell A & B	24/1807	233	233	mV	223.5	225.4	mV
Zero DO (23J100061)	NaSO3 in distilled water	10175	0.0	NA	NA	0	0.0	%
100% DO (23J100061)	100% Air Saturation	Air	100.0	5.4	uA	98.5	100.0	%

Calibrated by: [redacted] Kanwar
Calibration Date: 05-Mar-25
Next Due: 01-Sep-25

Appendix E

Laboratory certificates and chain of custody

CERTIFICATE OF ANALYSIS

Work Order	: **EP2504110**	Page	: 1 of 17
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Mar-2025 09:00
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 21-Mar-2025
C-O-C number	: 80322	Issue Date	: 27-Mar-2025 13:58
Sampler	: [redacted]		
Site	: Stirling - post summer - 1st week		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 32		
No. of samples analysed	: 30		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
John Horwood	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: LOR has been raised for particular analyte "PFNS" on sample "EP2504110-002" due to matrix interference.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW139_250314	0089_MW141_240314	0089_MW142_250314	0089_MW147_250314	0089_MW149_250314
				Sampling date / time	14-Mar-2025 11:21	14-Mar-2025 11:23	14-Mar-2025 11:20	14-Mar-2025 11:22	14-Mar-2025 11:22
Compound	CAS Number	LOR	Unit		EP2504110-001	EP2504110-002	EP2504110-003	EP2504110-004	EP2504110-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	**0.18**	**0.02**	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.76**	**0.08**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**1.46**	**0.10**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**21.8**	**0.74**	**0.08**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.60**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**64.0**	**1.08**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.20	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**1.74**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**17.4**	**0.11**	**0.06**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.45**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**1.46**	**0.02**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW139_250314	0089_MW141_240314	0089_MW142_250314	0089_MW147_250314	0089_MW149_250314
				Sampling date / time	14-Mar-2025 11:21	14-Mar-2025 11:23	14-Mar-2025 11:20	14-Mar-2025 11:22	14-Mar-2025 11:22
Compound	CAS Number	LOR	Unit		EP2504110-001	EP2504110-002	EP2504110-003	EP2504110-004	EP2504110-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	**110**	**2.15**	**0.14**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**85.8**	**1.82**	**0.08**	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	**108**	**2.03**	**0.14**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**119**	**92.5**	**114**	**118**	**118**
13C8-PFOA	---	0.02	%		**119**	**103**	**109**	**116**	**111**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC304_250313	0089_QC404_250313	0089_PW331_250314	0089_PW363_250314	0089_PW341_250314
				Sampling date / time	13-Mar-2025 14:09	13-Mar-2025 14:10	14-Mar-2025 10:07	14-Mar-2025 13:18	14-Mar-2025 13:23
Compound	CAS Number	LOR	Unit		EP2504110-019	EP2504110-020	EP2504110-021	EP2504110-022	EP2504110-023
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC304_250313	0089_QC404_250313	0089_PW331_250314	0089_PW363_250314	0089_PW341_250314
				Sampling date / time	13-Mar-2025 14:09	13-Mar-2025 14:10	14-Mar-2025 10:07	14-Mar-2025 13:18	14-Mar-2025 13:23
Compound	CAS Number	LOR	Unit		EP2504110-019	EP2504110-020	EP2504110-021	EP2504110-022	EP2504110-023
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**117**	**118**	**113**	**104**	**105**
13C8-PFOA	---	0.02	%		**115**	**117**	**112**	**105**	**99.9**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_PW362_250314	0089_PW364_250314	0089_PW340_250314	0089_PW335_250314	0089_QC305_250314
				Sampling date / time	14-Mar-2025 13:26	14-Mar-2025 13:31	14-Mar-2025 13:33	14-Mar-2025 13:34	14-Mar-2025 13:50
Compound	CAS Number	LOR	Unit		EP2504110-024	EP2504110-025	EP2504110-026	EP2504110-027	EP2504110-028
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.02**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_PW362_250314	0089_PW364_250314	0089_PW340_250314	0089_PW335_250314	0089_QC305_250314
				Sampling date / time	14-Mar-2025 13:26	14-Mar-2025 13:31	14-Mar-2025 13:33	14-Mar-2025 13:34	14-Mar-2025 13:50
Compound	CAS Number	LOR	Unit		EP2504110-024	EP2504110-025	EP2504110-026	EP2504110-027	EP2504110-028
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	**0.02**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	**0.02**	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	**0.02**	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**105**	**102**	**99.5**	**106**	**110**
13C8-PFOA	---	0.02	%		**102**	**99.4**	**101**	**109**	**113**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_QC405_250314	0089_QC501_250314	----	----	----
			Sampling date / time	14-Mar-2025 13:51	14-Mar-2025 13:52	---	---	---
Compound	CAS Number	LOR	Unit	EP2504110-029	EP2504110-030	-------	-------	-------
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC405_250314	0089_QC501_250314	----	----	----
				Sampling date / time	14-Mar-2025 13:51	14-Mar-2025 13:52	----	----	----
Compound	CAS Number	LOR	Unit		EP2504110-029	EP2504110-030	----	----	----
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		111	111	----	----	----
13C8-PFOA	---	0.02	%		111	109	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_250314	0089_SD340_250314	0089_SD341_250314	0089_SD362_250314	0089_SD363_250314
				Sampling date / time	14-Mar-2025 13:36	14-Mar-2025 13:36	14-Mar-2025 13:21	14-Mar-2025 13:25	14-Mar-2025 13:16
Compound	CAS Number	LOR	Unit		EP2504110-006	EP2504110-007	EP2504110-008	EP2504110-009	EP2504110-010
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		**27.5**	**24.2**	**23.2**	**27.1**	**31.2**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_250314	0089_SD340_250314	0089_SD341_250314	0089_SD362_250314	0089_SD363_250314
				Sampling date / time	14-Mar-2025 13:36	14-Mar-2025 13:36	14-Mar-2025 13:21	14-Mar-2025 13:25	14-Mar-2025 13:16
Compound	CAS Number	LOR	Unit		EP2504110-006	EP2504110-007	EP2504110-008	EP2504110-009	EP2504110-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**108**	**106**	**115**	**118**	**104**
13C8-PFOA	---	0.0002	%		**116**	**114**	**110**	**108**	**108**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_250314	0089_SD331_250314	0089_SD356_250314	0089_SD346_250313	----
				Sampling date / time	14-Mar-2025 13:35	14-Mar-2025 10:04	14-Mar-2025 10:03	13-Mar-2025 14:11	----
Compound	CAS Number	LOR	Unit		EP2504110-011	EP2504110-012	EP2504110-013	EP2504110-014	----
					Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**23.1**	**31.6**	**30.3**	**42.9**	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0029**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_250314	0089_SD331_250314	0089_SD356_250314	0089_SD346_250313	----
				Sampling date / time	14-Mar-2025 13:35	14-Mar-2025 10:04	14-Mar-2025 10:03	13-Mar-2025 14:11	---
Compound	CAS Number	LOR	Unit		EP2504110-011	EP2504110-012	EP2504110-013	EP2504110-014	-------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0029**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0029**	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0029**	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**110**	**122**	**109**	**125**	----
13C8-PFOA	---	0.0002	%		**104**	**114**	**109**	**109**	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250314	0089_SW132_250314	0089_SW134_250314	0089_SW150_250314	----
				Sampling date / time	14-Mar-2025 13:32	14-Mar-2025 13:32	14-Mar-2025 13:24	14-Mar-2025 10:00	---
Compound	CAS Number	LOR	Unit		EP2504110-015	EP2504110-016	EP2504110-017	EP2504110-018	-------
					Result	Result	Result	Result	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250314	0089_SW132_250314	0089_SW134_250314	0089_SW150_250314	----
				Sampling date / time	14-Mar-2025 13:32	14-Mar-2025 13:32	14-Mar-2025 13:24	14-Mar-2025 10:00	---
Compound	CAS Number	LOR	Unit		EP2504110-015	EP2504110-016	EP2504110-017	EP2504110-018	-------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		102	106	103	105	----
13C8-PFOA	---	0.02	%		104	107	98.8	104	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	76	136
13C8-PFOA	—	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

QUALITY CONTROL REPORT

Work Order	: **EP2504110**	Page	: 1 of 13
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Mar-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 21-Mar-2025
C-O-C number	: 80322	Issue Date	: 27-Mar-2025
Sampler	: [redacted]		
Site	: Stirling - post summer - 1st week		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 32		
No. of samples analysed	: 30		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6459095)									
EP2504110-006	0089_SD335_250314	EA055: Moisture Content	----	0.1	%	27.5	27.2	1.3	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6459975)									
EP2504010-043	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2504110-013	0089_SD356_250314	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6459975)									
EP2504010-043	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335 67 1	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6459975) - continued									
EP2504010-043	Anonymous	EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2504110-013	0089_SD356_250314	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6459975)									
EP2504010-043	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991 50 6	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2504110 013	0089 SD356 250314	EP231X: Perfluorooctane sulfonamide (FOSA)	754 91 6	0 0002	mg/kg	0 0002	0 0002	0 0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6459975) - continued									
EP2504110-013	0089_SD356_250314	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6459975)									
EP2504010-043	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2504110-013	0089_SD356_250314	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6459975)									
EP2504010-043	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2504110-013	0089_SD356_250314	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6459860)									
EP2504219-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6459860) - continued									
EP2504219-001	Anonymous	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2504219-005	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6459860)									
EP2504219-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376 06 7	0 05	µg/L	0 05	0 05	0 0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2504219-005	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375 85 9	0 02	µg/L	0 02	0 02	0 0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6459860)									
EP2504219-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6459860) - continued									
EP2504219-001	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2504219-005	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6459860)									
EP2504219-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2504219-005	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6459860) - continued									
EP2504219-005	Anonymous	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6459860)									
EP2504219-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2504219-005	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6459975)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	94.1	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	91.9	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	99.2	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	91.8	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	87.9	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	95.8	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6459975)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	91.9	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.6	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.2	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.4	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6459975)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.1	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.0	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6459975)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6459975) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	93.2	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	94.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	101	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	87.5	54.8	124
EP231P: PFAS Sums (QCLot: 6459975)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6459860)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	101	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	96.1	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	98.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	99.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	110	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6459919)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	95.6	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	91.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	98.5	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	97.3	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	85.9	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6459860)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	92.6	72.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6459860) - continued								
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	110	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	119	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	88.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	104	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6459919)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	97.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	93.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	101	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	99.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	109	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	103	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6459860)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	103	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	104	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	95.8	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.1	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	105	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6459919)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	68.0	141

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6459919) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	97.1	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	92.7	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	94.1	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6459860)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	96.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	98.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	102	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	108	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6459919)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	96.7	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	98.5	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	93.6	64.2	133
EP231P: PFAS Sums (QCLot: 6459860)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6459919)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6459975)							
EP2504010-043	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	90.5	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	94.0	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	95.8	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	100	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	90.5	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	91.7	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	99.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6459975)							
EP2504010-043	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	89.7	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	87.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	104	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	90.8	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	84.4	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	112	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	100	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	83.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	92.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	104	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6459975)							
EP2504010-043	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	94.0	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	106	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.6	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	110	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	111	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	102	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	95.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6459975)							
EP2504010-043	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	92.7	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	94.5	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	96.2	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	90.0	60.0	130

Sub-Matrix: **WATER**

Matrix Spike (MS) Report

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6459860)							
EP2504219-004	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	104	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	96.3	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	99.6	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	94.6	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	109	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	106	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6459860)							
EP2504219-004	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	97.0	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	94.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	92.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	106	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.4	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	117	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	107	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	97.0	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	87.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	107	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6459860)							
EP2504219-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	106	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	110	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	95.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	95.5	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	99.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	107	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	99.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6459860)							
EP2504219-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	99.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	98.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	101	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2504110**	Page	: 1 of 7
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Mar-2025
Site	: Stirling - post summer - 1st week	Issue Date	: 27-Mar-2025
Sampler	: [redacted]	No. of samples received	: 32
Order number	: 12641234/02.2.6	No. of samples analysed	: 30

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	26	7.69	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	26	3.85	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD346_250313	**13-Mar-2025**	**----**	----	----	**24-Mar-2025**	27-Mar-2025	✓
HDPE Soil Jar (EA055)							
0089_SD335_250314, 0089_SD340_250314, 0089_SD341_250314, 0089_SD362_250314, 0089_SD363_250314, 0089_SD364_250314, 0089_SD331_250314, 0089_SD356_250314	**14-Mar-2025**	**----**	----	----	**24-Mar-2025**	28-Mar-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD346_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250314, 0089_SD340_250314, 0089_SD341_250314, 0089_SD362_250314, 0089_SD363_250314, 0089_SD364_250314, 0089_SD331_250314, 0089_SD356_250314	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0089_SD346_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250314, 0089_SD340_250314, 0089_SD341_250314, 0089_SD362_250314, 0089_SD363_250314, 0089_SD364_250314, 0089_SD331_250314, 0089_SD356_250314	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0089_SD346_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250314, 0089_SD340_250314, 0089_SD341_250314, 0089_SD362_250314, 0089_SD363_250314, 0089_SD364_250314, 0089_SD331_250314, 0089_SD356_250314	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD346_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250314, 0089_SD340_250314, 0089_SD341_250314, 0089_SD362_250314, 0089_SD363_250314, 0089_SD364_250314, 0089_SD331_250314, 0089_SD356_250314	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0089_SD346_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250314, 0089_SD340_250314, 0089_SD341_250314, 0089_SD362_250314, 0089_SD363_250314, 0089_SD364_250314, 0089_SD331_250314, 0089_SD356_250314	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	03-May-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_QC304_250313, 0089_QC404_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW139_250314, 0089_MW141_240314, 0089_MW142_250314, 0089_MW147_250314, 0089_MW149_250314, 0089_SW130_250314, 0089_SW132_250314, 0089_SW134_250314, 0089_SW150_250314, 0089_PW331_250314, 0089_PW363_250314, 0089_PW341_250314, 0089_PW362_250314, 0089_PW364_250314, 0089_PW340_250314, 0089_PW335_250314, 0089_QC305_250314, 0089_QC405_250314, 0089_QC501_250314	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0089_QC304_250313,	0089_QC404_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)								
0089_MW139_250314,	0089_MW141_240314,	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
0089_MW142_250314,	0089_MW147_250314,							
0089_MW149_250314,	0089_SW130_250314,							
0089_SW132_250314,	0089_SW134_250314,							
0089_SW150_250314,	0089_PW331_250314,							
0089_PW363_250314,	0089_PW341_250314,							
0089_PW362_250314,	0089_PW364_250314,							
0089_PW340_250314,	0089_PW335_250314,							
0089_QC305_250314,	0089_QC405_250314,							
0089_QC501_250314								
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0089_QC304_250313,	0089_QC404_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)								
0089_MW139_250314,	0089_MW141_240314,	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
0089_MW142_250314,	0089_MW147_250314,							
0089_MW149_250314,	0089_SW130_250314,							
0089_SW132_250314,	0089_SW134_250314,							
0089_SW150_250314,	0089_PW331_250314,							
0089_PW363_250314,	0089_PW341_250314,							
0089_PW362_250314,	0089_PW364_250314,							
0089_PW340_250314,	0089_PW335_250314,							
0089_QC305_250314,	0089_QC405_250314,							
0089_QC501_250314								
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0089_QC304_250313,	0089_QC404_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)								
0089_MW139_250314,	0089_MW141_240314,	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
0089_MW142_250314,	0089_MW147_250314,							
0089_MW149_250314,	0089_SW130_250314,							
0089_SW132_250314,	0089_SW134_250314,							
0089_SW150_250314,	0089_PW331_250314,							
0089_PW363_250314,	0089_PW341_250314,							
0089_PW362_250314,	0089_PW364_250314,							
0089_PW340_250314,	0089_PW335_250314,							
0089_QC305_250314,	0089_QC405_250314,							
0089_QC501_250314								

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0089_QC304_250313,	0089_QC404_250313	**13-Mar-2025**	**24-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)								
0089_MW139_250314,	0089_MW141_240314,	**14-Mar-2025**	**24-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
0089_MW142_250314,	0089_MW147_250314,							
0089_MW149_250314,	0089_SW130_250314,							
0089_SW132_250314,	0089_SW134_250314,							
0089_SW150_250314,	0089_PW331_250314,							
0089_PW363_250314,	0089_PW341_250314,							
0089_PW362_250314,	0089_PW364_250314,							
0089_PW340_250314,	0089_PW335_250314,							
0089_QC305_250314,	0089_QC405_250314,							
0089_QC501_250314								

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	26	7.69	10.00	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	26	3.85	5.00	×	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. A portion of homogenised sample is extracted along with isotope dilution standards (where commercially available) in a solution of ammonium acetate in acetonitrile/methanol. Where relevant, interferences from co-extracted organics are removed using dispersive clean-up media (dSPE). A portion of extract is combined with an equal volume of reagent water and filtered for instrumental analysis.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2504110**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 4
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 80322	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Stirling - post summer - 1st week		
Sampler	: [redacted]		

Dates

Date Samples Received	: 18-Mar-2025 09:00	Issue Date	: 20-Mar-2025
Client Requested Due Date	: 27-Mar-2025	Scheduled Reporting Date	: **27-Mar-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 3	Temperature	: 11.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 32 / 30

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2504110-006	14-Mar-2025 13:36	0089_SD335_250314	✓	✓
EP2504110-007	14-Mar-2025 13:36	0089_SD340_250314	✓	✓
EP2504110-008	14-Mar-2025 13:21	0089_SD341_250314	✓	✓
EP2504110-009	14-Mar-2025 13:25	0089_SD362_250314	✓	✓
EP2504110-010	14-Mar-2025 13:16	0089_SD363_250314	✓	✓
EP2504110-011	14-Mar-2025 13:35	0089_SD364_250314	✓	✓
EP2504110-012	14-Mar-2025 10:04	0089_SD331_250314	✓	✓
EP2504110-013	14-Mar-2025 10:03	0089_SD356_250314	✓	✓
EP2504110-014	13-Mar-2025 14:11	0089_SD346_250313	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2504110-001	14-Mar-2025 11:21	0089_MW139_250314		✓
EP2504110-002	14-Mar-2025 11:23	0089_MW141_240314		✓
EP2504110-003	14-Mar-2025 11:20	0089_MW142_250314		✓
EP2504110-004	14-Mar-2025 11:22	0089_MW147_250314		✓
EP2504110-005	14-Mar-2025 11:22	0089_MW149_250314		✓
EP2504110-015	14-Mar-2025 13:32	0089_SW130_250314		✓
EP2504110-016	14-Mar-2025 13:32	0089_SW132_250314		✓
EP2504110-017	14-Mar-2025 13:24	0089_SW134_250314		✓
EP2504110-018	14-Mar-2025 10:00	0089_SW150_250314		✓
EP2504110-019	13-Mar-2025 14:09	0089_QC304_250313		✓
EP2504110-020	13-Mar-2025 14:10	0089_QC404_250313		✓
EP2504110-021	14-Mar-2025 10:07	0089_PW331_250314		✓
EP2504110-022	14-Mar-2025 13:18	0089_PW363_250314		✓
EP2504110-023	14-Mar-2025 13:23	0089_PW341_250314		✓

			(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2504110-024	14-Mar-2025 13:26	0089_PW362_250314		✓
EP2504110-025	14-Mar-2025 13:31	0089_PW364_250314		✓
EP2504110-026	14-Mar-2025 13:33	0089_PW340_250314		✓
EP2504110-027	14-Mar-2025 13:34	0089_PW335_250314		✓
EP2504110-028	14-Mar-2025 13:50	0089_QC305_250314		✓
EP2504110-029	14-Mar-2025 13:51	0089_QC405_250314		✓
EP2504110-030	14-Mar-2025 13:52	0089_QC501_250314		✓
EP2504110-031	17-Mar-2025 14:17	0089_QC116_250317	✓	
EP2504110-032	17-Mar-2025 14:18	0089_QC216_250317	✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

CHAIN OF CUSTODY

COC#: 80322 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY: [redacted]
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 20/3 800

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]
PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW139_250314		14/03/2025 11:21 AM	WATER	ALS: 2 Non ALS: 0	No		X					
002	0089_MW141_240314		14/03/2025 11:23 AM	WATER	ALS: 2 Non ALS: 0	No		X					
003	0089_MW142_250314		14/03/2025 11:20 AM	WATER	ALS: 2 Non ALS: 0	No		X					
004	0089_MW147_250314		14/03/2025 11:22 AM	WATER	ALS: 2 Non ALS: 0	No		X					
005	0089_MW149_250314		14/03/2025 11:22 AM	WATER	ALS: 2 Non ALS: 0	No		X					
006	0089_SD335_250314		14/03/2025 01:36 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
007	0089_SD340_250314		14/03/2025 01:36 PM	SOIL	ALS: 1 Non ALS: 0	No				X			

Environmental Division Perth

Work Order Reference
EP2504110

Telephone : +61-8-9406 1301

CHAIN OF CUSTODY

COC#: **80322** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_SD341_250314		14/03/2025 01:21 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
009	0089_SD362_250314		14/03/2025 01:25 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
010	0089_SD363_250314		14/03/2025 01:16 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
011	0089_SD364_250314		14/03/2025 01:35 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
012	0089_SD331_250314		14/03/2025 10:04 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
013	0089_SD356_250314		14/03/2025 10:03 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
014	0089_SD346_250313		13/03/2025 02:11 PM	SOIL	ALS: 1 Non ALS: 0	No				X			

CHAIN OF CUSTODY

COC#: 80322 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_SW130_250314		14/03/2025 01:32 PM	WATER	ALS: 2 Non ALS: 0	No					X		
016	0089_SW132_250314		14/03/2025 01:32 PM	WATER	ALS: 2 Non ALS: 0	No					X		
017	0089_SW134_250314		14/03/2025 01:24 PM	WATER	ALS: 2 Non ALS: 0	No					X		
018	0089_SW150_250314		14/03/2025 10:00 AM	WATER	ALS: 2 Non ALS: 0	No					X		
019	0089_QC304_250313		13/03/2025 02:09 PM	WATER	ALS: 2 Non ALS: 0	No			Partial 1/3				
020	0089_QC404_250313		13/03/2025 02:10 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						
021	0089_PW331_250314		14/03/2025 10:07 AM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80322** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_PW363_250314		14/03/2025 01:18 PM	WATER	ALS: 2 Non ALS: 0	No					X		
023	0089_PW341_250314		14/03/2025 01:23 PM	WATER	ALS: 2 Non ALS: 0	No					X		
024	0089_PW362_250314		14/03/2025 01:26 PM	WATER	ALS: 2 Non ALS: 0	No					X		
025	0089_PW364_250314		14/03/2025 01:31 PM	WATER	ALS: 2 Non ALS: 0	No					X		
026	0089_PW340_250314		14/03/2025 01:33 PM	WATER	ALS: 2 Non ALS: 0	No					X		
027	0089_PW335_250314		14/03/2025 01:34 PM	WATER	ALS: 2 Non ALS: 0	No					X		
028	0089_QC305_250314		14/03/2025 01:50 PM	WATER	ALS: 2 Non ALS: 0	No			Partial 1/3				

CHAIN OF CUSTODY

COC#: **80322** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_QC405_250314		14/03/2025 01:51 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						
030	0089_QC501_250314		14/03/2025 01:52 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						
031	0089_QC116_250317		17/03/2025 02:17 PM	WATER	ALS: 2 Non ALS: 0	No		X					
032	0089_QC216_250317		17/03/2025 02:18 PM	WATER	ALS: 2 Non ALS: 0	No		X					

CHAIN OF CUSTODY

COC#: **80322** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
019	0089_QC304_250313	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
020	0089_QC404_250313	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
028	0089_QC305_250314	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
029	0089_QC405_250314	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
030	0089_QC501_250314	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: 80322 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW139_250314	HDPE (no PTFE)	20 mL	00352407148659	Grey	No	
001	0089_MW139_250314	HDPE (no PTFE)	20 mL	00352407149177	Grey	No	
002	0089_MW141_240314	HDPE (no PTFE)	20 mL	00352407149057	Grey	No	
002	0089_MW141_240314	HDPE (no PTFE)	20 mL	00352407148579	Grey	No	
003	0089_MW142_250314	HDPE (no PTFE)	20 mL	00352407149076	Grey	No	
003	0089_MW142_250314	HDPE (no PTFE)	20 mL	00352407149262	Grey	No	
004	0089_MW147_250314	HDPE (no PTFE)	20 mL	00352407148617	Grey	No	
004	0089_MW147_250314	HDPE (no PTFE)	20 mL	00352407149003	Grey	No	
005	0089_MW149_250314	HDPE (no PTFE)	20 mL	00352407149126	Grey	No	
005	0089_MW149_250314	HDPE (no PTFE)	20 mL	00352407149135	Grey	No	
006	0089_SD335_250314	HDPE Soil Jar	200 mL	00621223037707	Grey	No	
007	0089_SD340_250314	HDPE Soil Jar	200 mL	00621223037327	Grey	No	
008	0089_SD341_250314	HDPE Soil Jar	200 mL	00621223037357	Grey	No	
009	0089_SD362_250314	HDPE Soil Jar	200 mL	00621223037370	Grey	No	
010	0089_SD363_250314	HDPE Soil Jar	200 mL	00621223037283	Grey	No	
011	0089_SD364_250314	HDPE Soil Jar	200 mL	00621223037365	Grey	No	
012	0089_SD331_250314	HDPE Soil Jar	200 mL	00621223037355	Grey	No	
013	0089_SD356_250314	HDPE Soil Jar	200 mL	00621223037702	Grey	No	
014	0089_SD346_250313	HDPE Soil Jar	200 mL	00621223037371	Grey	No	
015	0089_SW130_250314	HDPE (no PTFE)	20 mL	00352407149356	Grey	No	
015	0089_SW130_250314	HDPE (no PTFE)	20 mL	00352407149312	Grey	No	
016	0089_SW132_250314	HDPE (no PTFE)	20 mL	00352407149194	Grey	No	
016	0089_SW132_250314	HDPE (no PTFE)	20 mL	00352407149224	Grey	No	
017	0089_SW134_250314	HDPE (no PTFE)	20 mL	00352407149213	Grey	No	
017	0089_SW134_250314	HDPE (no PTFE)	20 mL	00352407148647	Grey	No	
018	0089_SW150_250314	HDPE (no PTFE)	20 mL	00352407149140	Grey	No	

CHAIN OF CUSTODY

COC#: **80322** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

018	0089_SW150_250314	HDPE (no PTFE)	20 mL	00352407149267	Grey	No	
019	0089_QC304_250313	HDPE (no PTFE)	20 mL	00352407149223	Grey	No	
019	0089_QC304_250313	HDPE (no PTFE)	20 mL	00352407149041	Grey	No	
020	0089_QC404_250313	HDPE (no PTFE)	20 mL	00352407145016	Grey	No	
020	0089_QC404_250313	HDPE (no PTFE)	20 mL	00352407144914	Grey	No	
021	0089_PW331_250314	HDPE (no PTFE)	20 mL	00352407149195	Grey	No	
021	0089_PW331_250314	HDPE (no PTFE)	20 mL	00352407148729	Grey	No	
022	0089_PW363_250314	HDPE (no PTFE)	20 mL	00352407148573	Grey	No	
022	0089_PW363_250314	HDPE (no PTFE)	20 mL	00352407148772	Grey	No	
023	0089_PW341_250314	HDPE (no PTFE)	20 mL	00352407149201	Grey	No	
023	0089_PW341_250314	HDPE (no PTFE)	20 mL	00352407148616	Grey	No	
024	0089_PW362_250314	HDPE (no PTFE)	20 mL	00352407144751	Grey	No	
024	0089_PW362_250314	HDPE (no PTFE)	20 mL	00352407144809	Grey	No	
025	0089_PW364_250314	HDPE (no PTFE)	20 mL	00352407148748	Grey	No	
025	0089_PW364_250314	HDPE (no PTFE)	20 mL	00352407149404	Grey	No	
026	0089_PW340_250314	HDPE (no PTFE)	20 mL	00352407149220	Grey	No	
026	0089_PW340_250314	HDPE (no PTFE)	20 mL	00352407148756	Grey	No	
027	0089_PW335_250314	HDPE (no PTFE)	20 mL	00352407149324	Grey	No	
027	0089_PW335_250314	HDPE (no PTFE)	20 mL	00352407148969	Grey	No	
028	0089_QC305_250314	HDPE (no PTFE)	20 mL	00352407149352	Grey	No	
028	0089_QC305_250314	HDPE (no PTFE)	20 mL	00352407149214	Grey	No	
029	0089_QC405_250314	HDPE (no PTFE)	20 mL	00352407149423	Grey	No	
029	0089_QC405_250314	HDPE (no PTFE)	20 mL	00352407149304	Grey	No	
030	0089_QC501_250314	HDPE (no PTFE)	20 mL	00352312060913	Grey	No	
030	0089_QC501_250314	HDPE (no PTFE)	20 mL	00352312060713	Grey	No	
031	0089_QC116_250317	HDPE (no PTFE)	20 mL	00352407145071	Grey	No	
031	0089_QC116_250317	HDPE (no PTFE)	20 mL	00352407145148	Grey	No	

CHAIN OF CUSTODY

COC#: **80322** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 1st week

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

032	0089_QC216_250317	HDPE (no PTFE)	20 mL	00352407144977	Grey	No	
032	0089_QC216_250317	HDPE (no PTFE)	20 mL	00352407144834	Grey	No	

Total Bottle Count: ALS: 55, Non ALS: 0

CERTIFICATE OF ANALYSIS

Work Order	: **EP2503930**	Page	: 1 of 53
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	[redacted]	Contact	[redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Mar-2025 09:00
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 19-Mar-2025
C-O-C number	: 80251	Issue Date	: 31-Mar-2025 12:25
Sampler	[redacted]		
Site	: OMP week 1		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 116		
No. of samples analysed	: 116		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Chris Lemaitre	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
David Viner	SENIOR LAB TECH	Perth Organics, Wangara, WA
John Horwood	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- Amendment (28/03/2025): This report has been amended and re-released to allow the reporting of additional analytical data, specifically method EP231X for samples 115 & 116.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW158_250312	0089_MW161_250312	0089_MW166_250312	0089_MW171_250312	0089_MW226_250310
				Sampling date / time	12-Mar-2025 14:32	12-Mar-2025 14:34	12-Mar-2025 14:33	12-Mar-2025 14:35	10-Mar-2025 14:52
Compound	CAS Number	LOR	Unit		EP2503930-001	EP2503930-002	EP2503930-003	EP2503930-004	EP2503930-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	**1.01**	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.11**	**1.37**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.03**	**0.80**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.34**	**0.74**	**5.43**	**0.02**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.16**	**0.97**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.37**	**6.18**	**2.42**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.1**	**0.6**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.05**	**0.35**	**0.48**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.05**	**0.29**	**1.62**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.02**	**0.15**	**0.18**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.03**	**0.10**	**0.44**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW158_250312	0089_MW161_250312	0089_MW166_250312	0089_MW171_250312	0089_MW226_250310
				Sampling date / time	12-Mar-2025 14:32	12-Mar-2025 14:34	12-Mar-2025 14:33	12-Mar-2025 14:35	10-Mar-2025 14:52
Compound	CAS Number	LOR	Unit		EP2503930-001	EP2503930-002	EP2503930-003	EP2503930-004	EP2503930-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	**0.86**	**8.24**	**15.3**	**0.02**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.71**	**6.92**	**7.85**	**0.02**
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	**0.86**	**8.02**	**12.5**	**0.02**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**136**	**134**	**106**	**132**	**134**
13C8-PFOA	---	0.02	%		**117**	**121**	**97.3**	**129**	**122**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW228_250310	0089_MW553_250311	0089_MW010_250311	0089_QC103_250310	0089_QC402_250311
			Sampling date / time	10-Mar-2025 14:52	11-Mar-2025 14:39	11-Mar-2025 14:53	10-Mar-2025 14:50	11-Mar-2025 13:59
Compound	CAS Number	LOR	Unit	EP2503930-006	EP2503930-007	EP2503930-008	EP2503930-094	EP2503930-098
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	**0.07**	<0.02	<0.02	**0.06**	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.28**	<0.02	<0.02	**0.32**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.18**	<0.02	<0.02	**0.21**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.59**	<0.01	<0.01	**0.78**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	**1.1**	<0.1	<0.1	**1.2**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**4.04**	<0.02	<0.02	**4.86**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**3.66**	<0.02	<0.02	**4.86**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.99**	<0.02	<0.02	**1.00**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.30**	<0.01	<0.01	**0.29**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW228_250310	0089_MW553_250311	0089_MW010_250311	0089_QC103_250310	0089_QC402_250311
				Sampling date / time	10-Mar-2025 14:52	11-Mar-2025 14:39	11-Mar-2025 14:53	10-Mar-2025 14:50	11-Mar-2025 13:59
Compound	CAS Number	LOR	Unit		EP2503930-006	EP2503930-007	EP2503930-008	EP2503930-094	EP2503930-098
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		**0.37**	<0.05	<0.05	**0.46**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**11.6**	<0.01	<0.01	**14.0**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.59**	<0.01	<0.01	**0.78**	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**11.3**	<0.01	<0.01	**13.8**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**134**	**135**	**133**	**120**	**123**
13C8-PFOA	---	0.02	%		**125**	**118**	**120**	**110**	**119**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC302_250311	0089_QC303_250312	0089_QC403_250312	0089_QC107_250312	0089_QC110_250312
				Sampling date / time	11-Mar-2025 14:00	12-Mar-2025 14:34	12-Mar-2025 14:35	12-Mar-2025 14:35	12-Mar-2025 14:39
Compound	CAS Number	LOR	Unit		EP2503930-099	EP2503930-100	EP2503930-101	EP2503930-102	EP2503930-103
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC302_250311	0089_QC303_250312	0089_QC403_250312	0089_QC107_250312	0089_QC110_250312
				Sampling date / time	11-Mar-2025 14:00	12-Mar-2025 14:34	12-Mar-2025 14:35	12-Mar-2025 14:35	12-Mar-2025 14:39
Compound	CAS Number	LOR	Unit		EP2503930-099	EP2503930-100	EP2503930-101	EP2503930-102	EP2503930-103
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		118	114	113	108	118
13C8-PFOA	---	0.02	%		119	113	118	106	117

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC108_250312	0080_PW358_250314	0089_PW330_250314	0089_QC113_250314	----
				Sampling date / time	12-Mar-2025 14:42	14-Mar-2025 09:06	14-Mar-2025 09:52	14-Mar-2025 09:53	---
Compound	CAS Number	LOR	Unit		EP2503930-105	EP2503930-109	EP2503930-110	EP2503930-111	-------
					Result	Result	Result	Result	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC108_250312	0080_PW358_250314	0089_PW330_250314	0089_QC113_250314	----
				Sampling date / time	12-Mar-2025 14:42	14-Mar-2025 09:06	14-Mar-2025 09:52	14-Mar-2025 09:53	---
Compound	CAS Number	LOR	Unit		EP2503930-105	EP2503930-109	EP2503930-110	EP2503930-111	-------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		127	119	117	115	----
13C8-PFOA	---	0.02	%		122	118	109	115	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD330_250314	0089_SD329_250314	0089_SD357_250314	0089_SD358_260314	0089_SD304_250313
			Sampling date / time	14-Mar-2025 09:49	14-Mar-2025 08:55	14-Mar-2025 09:57	14-Mar-2025 09:05	13-Mar-2025 14:01
Compound	CAS Number	LOR	Unit	EP2503930-009	EP2503930-010	EP2503930-011	EP2503930-012	EP2503930-013
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	**27.8**	**21.4**	**28.4**	**27.9**	**29.4**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD330_250314	0089_SD329_250314	0089_SD357_250314	0089_SD358_260314	0089_SD304_250313
				Sampling date / time	14-Mar-2025 09:49	14-Mar-2025 08:55	14-Mar-2025 09:57	14-Mar-2025 09:05	13-Mar-2025 14:01
Compound	CAS Number	LOR	Unit		EP2503930-009	EP2503930-010	EP2503930-011	EP2503930-012	EP2503930-013
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**109**	**102**	**109**	**106**	**104**
13C8-PFOA	---	0.0002	%		**108**	**108**	**110**	**110**	**110**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD345_250313	0089_SD367_250313	0089_SD368_250313	0089_SD350_250312	0089_SD369_250313
				Sampling date / time	13-Mar-2025 10:06	13-Mar-2025 10:27	13-Mar-2025 12:42	12-Mar-2025 14:37	13-Mar-2025 09:41
Compound	CAS Number	LOR	Unit		EP2503930-014	EP2503930-015	EP2503930-016	EP2503930-017	EP2503930-018
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		**30.0**	**27.7**	**27.6**	**19.8**	**26.6**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	**0.0013**	**0.0002**	<0.0002	**0.0003**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD345_250313	0089_SD367_250313	0089_SD368_250313	0089_SD350_250312	0089_SD369_250313
				Sampling date / time	13-Mar-2025 10:06	13-Mar-2025 10:27	13-Mar-2025 12:42	12-Mar-2025 14:37	13-Mar-2025 09:41
Compound	CAS Number	LOR	Unit		EP2503930-014	EP2503930-015	EP2503930-016	EP2503930-017	EP2503930-018
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	**0.0013**	**0.0002**	<0.0002	**0.0003**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	**0.0013**	**0.0002**	<0.0002	**0.0003**
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	**0.0013**	**0.0002**	<0.0002	**0.0003**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**112**	**103**	**103**	**108**	**106**
13C8-PFOA	---	0.0002	%		**110**	**106**	**106**	**111**	**103**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD351_250312	0089_SD352_250312	0089_SD380_250312	0089_SD381_250312	0089_SD401_250312
			Sampling date / time	12-Mar-2025 14:40	12-Mar-2025 14:38	12-Mar-2025 14:37	12-Mar-2025 14:39	12-Mar-2025 14:36
Compound	CAS Number	LOR	Unit	EP2503930-019	EP2503930-020	EP2503930-021	EP2503930-022	EP2503930-023
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	25.2	13.9	19.3	25.1	25.4
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD351_250312	0089_SD352_250312	0089_SD380_250312	0089_SD381_250312	0089_SD401_250312
				Sampling date / time	12-Mar-2025 14:40	12-Mar-2025 14:38	12-Mar-2025 14:37	12-Mar-2025 14:39	12-Mar-2025 14:36
Compound	CAS Number	LOR	Unit		EP2503930-019	EP2503930-020	EP2503930-021	EP2503930-022	EP2503930-023
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		108	104	106	112	106
13C8-PFOA	---	0.0002	%		108	110	108	112	104

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD306_250311	0089_SD307_250311	0089_SD314_250311	0089_SD308_250311	0089_SD315_250311
			Sampling date / time	11-Mar-2025 09:24	11-Mar-2025 10:11	11-Mar-2025 09:42	11-Mar-2025 11:08	11-Mar-2025 10:01
Compound	CAS Number	LOR	Unit	EP2503930-024	EP2503930-025	EP2503930-026	EP2503930-027	EP2503930-028
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	**27.3**	**17.4**	**34.0**	**12.8**	**20.0**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD306_250311	0089_SD307_250311	0089_SD314_250311	0089_SD308_250311	0089_SD315_250311
				Sampling date / time	11-Mar-2025 09:24	11-Mar-2025 10:11	11-Mar-2025 09:42	11-Mar-2025 11:08	11-Mar-2025 10:01
Compound	CAS Number	LOR	Unit		EP2503930-024	EP2503930-025	EP2503930-026	EP2503930-027	EP2503930-028
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		107	108	106	108	111
13C8-PFOA	---	0.0002	%		109	108	110	108	110

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD316_250311	0089_SD405_250310	0089_SD407_250310	0089_SD409_250310	0089_SD411_250311
			Sampling date / time	11-Mar-2025 10:49	10-Mar-2025 14:29	10-Mar-2025 14:31	10-Mar-2025 14:31	11-Mar-2025 13:27
Compound	CAS Number	LOR	Unit	EP2503930-029	EP2503930-030	EP2503930-031	EP2503930-032	EP2503930-033
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	**27.3**	**11.2**	**28.9**	**30.6**	**19.0**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD316_250311	0089_SD405_250310	0089_SD407_250310	0089_SD409_250310	0089_SD411_250311
				Sampling date / time	11-Mar-2025 10:49	10-Mar-2025 14:29	10-Mar-2025 14:31	10-Mar-2025 14:31	11-Mar-2025 13:27
Compound	CAS Number	LOR	Unit		EP2503930-029	EP2503930-030	EP2503930-031	EP2503930-032	EP2503930-033
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	0.0003	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	0.0003	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		112	104	106	108	114
13C8-PFOA	---	0.0002	%		107	105	106	106	100

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_SD413_250311	0089_SD374_250310	0089_SD415_250311	0089_SD375_250310	0089_SD378_250310
			Sampling date / time	11-Mar-2025 13:05	10-Mar-2025 14:34	11-Mar-2025 12:45	10-Mar-2025 14:32	10-Mar-2025 14:35
Compound	CAS Number	LOR	Unit	EP2503930-034	EP2503930-035	EP2503930-036	EP2503930-037	EP2503930-038
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	23.2	19.6	28.8	25.5	24.9
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD413_250311	0089_SD374_250310	0089_SD415_250311	0089_SD375_250310	0089_SD378_250310
				Sampling date / time	11-Mar-2025 13:05	10-Mar-2025 14:34	11-Mar-2025 12:45	10-Mar-2025 14:32	10-Mar-2025 14:35
Compound	CAS Number	LOR	Unit		EP2503930-034	EP2503930-035	EP2503930-036	EP2503930-037	EP2503930-038
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0002**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0002**
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0002**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**106**	**106**	**109**	**110**	**110**
13C8-PFOA	---	0.0002	%		**108**	**108**	**108**	**106**	**104**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0089_QC105_250311	0089_QC106_250311	0089_QC109_250312	0089_QC114_250314	----
			Sampling date / time	11-Mar-2025 10:52	11-Mar-2025 13:28	12-Mar-2025 14:41	14-Mar-2025 10:00	---
Compound	CAS Number	LOR	Unit	EP2503930-096	EP2503930-097	EP2503930-104	EP2503930-113	-------
				Result	Result	Result	Result	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	**23.8**	**17.9**	**15.0**	**27.4**	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_QC105_250311	0089_QC106_250311	0089_QC109_250312	0089_QC114_250314	----
				Sampling date / time	11-Mar-2025 10:52	11-Mar-2025 13:28	12-Mar-2025 14:41	14-Mar-2025 10:00	---
Compound	CAS Number	LOR	Unit		EP2503930-096	EP2503930-097	EP2503930-104	EP2503930-113	------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		102	101	110	128	----
13C8-PFOA	---	0.0002	%		103	105	102	118	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0089_QC112_250313	----	----	----	----
				Sampling date / time	13-Mar-2025 10:30	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2503930-107	----	----	----	----
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		35.0	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		0.0011	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0089_QC112_250313	----	----	----	----
				Sampling date / time	13-Mar-2025 10:30	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2503930-107	----	----	----	----
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		**0.0011**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0011**	----	----	----	----
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		**0.0011**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		**131**	----	----	----	----
13C8-PFOA	---	0.0002	%		**110**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW152_250314	0089_SW154_250314	0089_SW156_250314	0089_SW305_250313	0089_SW370_250313
				Sampling date / time	14-Mar-2025 09:50	14-Mar-2025 09:50	14-Mar-2025 09:16	13-Mar-2025 14:09	13-Mar-2025 10:06
Compound	CAS Number	LOR	Unit		EP2503930-039	EP2503930-040	EP2503930-041	EP2503930-042	EP2503930-043
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW152_250314	0089_SW154_250314	0089_SW156_250314	0089_SW305_250313	0089_SW370_250313
				Sampling date / time	14-Mar-2025 09:50	14-Mar-2025 09:50	14-Mar-2025 09:16	13-Mar-2025 14:09	13-Mar-2025 10:06
Compound	CAS Number	LOR	Unit		EP2503930-039	EP2503930-040	EP2503930-041	EP2503930-042	EP2503930-043
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		103	102	103	139	133
13C8-PFOA	---	0.02	%		105	105	102	133	127

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_250313	0089_SW372_250313	0089_SW373_250313	0089_SW353_250312	0089_SW382_250312
				Sampling date / time	13-Mar-2025 12:44	13-Mar-2025 14:02	13-Mar-2025 14:06	12-Mar-2025 14:43	12-Mar-2025 14:41
Compound	CAS Number	LOR	Unit		EP2503930-044	EP2503930-045	EP2503930-046	EP2503930-047	EP2503930-048
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_250313	0089_SW372_250313	0089_SW373_250313	0089_SW353_250312	0089_SW382_250312
				Sampling date / time	13-Mar-2025 12:44	13-Mar-2025 14:02	13-Mar-2025 14:06	12-Mar-2025 14:43	12-Mar-2025 14:41
Compound	CAS Number	LOR	Unit		EP2503930-044	EP2503930-045	EP2503930-046	EP2503930-047	EP2503930-048
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**105**	**139**	**101**	**103**	**102**
13C8-PFOA	---	0.02	%		**102**	**123**	**105**	**103**	**102**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW383_250312	0089_SW384_250312	0089_SW309_250311	0089_SW310_250311	0089_SW311_250311
				Sampling date / time	12-Mar-2025 14:37	12-Mar-2025 14:41	11-Mar-2025 09:23	11-Mar-2025 10:26	11-Mar-2025 11:09
Compound	CAS Number	LOR	Unit		EP2503930-049	EP2503930-050	EP2503930-051	EP2503930-052	EP2503930-053
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW383_250312	0089_SW384_250312	0089_SW309_250311	0089_SW310_250311	0089_SW311_250311
				Sampling date / time	12-Mar-2025 14:37	12-Mar-2025 14:41	11-Mar-2025 09:23	11-Mar-2025 10:26	11-Mar-2025 11:09
Compound	CAS Number	LOR	Unit		EP2503930-049	EP2503930-050	EP2503930-051	EP2503930-052	EP2503930-053
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**102**	**95.8**	**105**	**127**	**139**
13C8-PFOA	---	0.02	%		**102**	**101**	**103**	**119**	**126**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW406_250310	0089_SW408_250310	0089_SW410_250310	0089_SW412_250311	0089_SW414_250311
				Sampling date / time	10-Mar-2025 14:42	10-Mar-2025 14:42	10-Mar-2025 14:43	11-Mar-2025 13:27	11-Mar-2025 13:06
Compound	CAS Number	LOR	Unit		EP2503930-054	EP2503930-055	EP2503930-056	EP2503930-057	EP2503930-058
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW406_250310	0089_SW408_250310	0089_SW410_250310	0089_SW412_250311	0089_SW414_250311
				Sampling date / time	10-Mar-2025 14:42	10-Mar-2025 14:42	10-Mar-2025 14:43	11-Mar-2025 13:27	11-Mar-2025 13:06
Compound	CAS Number	LOR	Unit		EP2503930-054	EP2503930-055	EP2503930-056	EP2503930-057	EP2503930-058
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**135**	**111**	**135**	**105**	**131**
13C8-PFOA	---	0.02	%		**126**	**98.2**	**125**	**100**	**124**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW416_250311	0089_SW317_250310	0089_SW318_250310	0089_SW319_250310	0089_QC301_250310
				Sampling date / time	11-Mar-2025 12:45	10-Mar-2025 14:37	10-Mar-2025 14:40	10-Mar-2025 14:41	10-Mar-2025 14:44
Compound	CAS Number	LOR	Unit		EP2503930-059	EP2503930-060	EP2503930-061	EP2503930-062	EP2503930-090
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW416_250311	0089_SW317_250310	0089_SW318_250310	0089_SW319_250310	0089_QC301_250310
				Sampling date / time	11-Mar-2025 12:45	10-Mar-2025 14:37	10-Mar-2025 14:40	10-Mar-2025 14:41	10-Mar-2025 14:44
Compound	CAS Number	LOR	Unit		EP2503930-059	EP2503930-060	EP2503930-061	EP2503930-062	EP2503930-090
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		137	132	136	134	119
13C8-PFOA	---	0.02	%		130	119	125	121	118

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0089_QC401_250310	0089_QC102_250310	0089_QC101_250310	0089_QC104_250311	----
			Sampling date / time	10-Mar-2025 14:45	10-Mar-2025 14:48	10-Mar-2025 14:49	11-Mar-2025 10:51	----
Compound	CAS Number	LOR	Unit	EP2503930-091	EP2503930-092	EP2503930-093	EP2503930-095	-------
				Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC401_250310	0089_QC102_250310	0089_QC101_250310	0089_QC104_250311	----
				Sampling date / time	10-Mar-2025 14:45	10-Mar-2025 14:48	10-Mar-2025 14:49	11-Mar-2025 10:51	---
Compound	CAS Number	LOR	Unit		EP2503930-091	EP2503930-092	EP2503930-093	EP2503930-095	-------
					Result	Result	Result	Result	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**116**	**120**	**104**	**110**	----
13C8-PFOA	---	0.02	%		**112**	**114**	**105**	**114**	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_250313	0089_PW345_250313	0089_PW367_250313	0089_PW368_250313	0089_PW369_250313
				Sampling date / time	13-Mar-2025 14:10	13-Mar-2025 10:05	13-Mar-2025 10:29	13-Mar-2025 12:45	13-Mar-2025 09:43
Compound	CAS Number	LOR	Unit		EP2503930-063	EP2503930-064	EP2503930-065	EP2503930-066	EP2503930-067
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	**0.02**	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.06**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.03**	**0.02**	**0.02**	**0.03**	**0.05**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_250313	0089_PW345_250313	0089_PW367_250313	0089_PW368_250313	0089_PW369_250313
				Sampling date / time	13-Mar-2025 14:10	13-Mar-2025 10:05	13-Mar-2025 10:29	13-Mar-2025 12:45	13-Mar-2025 09:43
Compound	CAS Number	LOR	Unit		EP2503930-063	EP2503930-064	EP2503930-065	EP2503930-066	EP2503930-067
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.05**	**0.02**	**0.10**	**0.03**	**0.05**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**0.02**	**0.02**	**0.03**	**0.05**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.05**	**0.02**	**0.08**	**0.03**	**0.05**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**101**	**130**	**103**	**102**	**106**
13C8-PFOA	---	0.02	%		**99.6**	**128**	**99.7**	**99.5**	**108**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW351_250312	0089_PW350_250312	0089_PW352_250312	0089_PW380_250312	0089_PW381_250312
			Sampling date / time	12-Mar-2025 14:38	12-Mar-2025 14:36	12-Mar-2025 14:42	12-Mar-2025 14:43	12-Mar-2025 14:38
Compound	CAS Number	LOR	Unit	EP2503930-068	EP2503930-069	EP2503930-070	EP2503930-071	EP2503930-072
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW351_250312	0089_PW350_250312	0089_PW352_250312	0089_PW380_250312	0089_PW381_250312
				Sampling date / time	12-Mar-2025 14:38	12-Mar-2025 14:36	12-Mar-2025 14:42	12-Mar-2025 14:43	12-Mar-2025 14:38
Compound	CAS Number	LOR	Unit		EP2503930-068	EP2503930-069	EP2503930-070	EP2503930-071	EP2503930-072
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		113	120	98.4	111	120
13C8-PFOA	---	0.02	%		108	110	98.8	106	111

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW401_250312	0089_PW346_250313	0089_PW306_250311	0089_PW307_250311	0089_PW308_250311
				Sampling date / time	12-Mar-2025 14:40	13-Mar-2025 14:11	11-Mar-2025 09:43	11-Mar-2025 10:09	11-Mar-2025 11:07
Compound	CAS Number	LOR	Unit		EP2503930-073	EP2503930-074	EP2503930-075	EP2503930-076	EP2503930-077
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.20**	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**1.11**	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.04**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.04**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW401_250312	0089_PW346_250313	0089_PW306_250311	0089_PW307_250311	0089_PW308_250311
				Sampling date / time	12-Mar-2025 14:40	13-Mar-2025 14:11	11-Mar-2025 09:43	11-Mar-2025 10:09	11-Mar-2025 11:07
Compound	CAS Number	LOR	Unit		EP2503930-073	EP2503930-074	EP2503930-075	EP2503930-076	EP2503930-077
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	**1.46**	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**1.31**	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	**1.44**	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**96.5**	**106**	**113**	**122**	**107**
13C8-PFOA	---	0.02	%		**101**	**110**	**105**	**112**	**106**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW314_250311	0089_PW315_250311	0089_PW316_250311	0089_PW405_250310	0089_PW407_250310
			Sampling date / time	11-Mar-2025 09:43	11-Mar-2025 10:02	11-Mar-2025 10:48	10-Mar-2025 14:45	10-Mar-2025 14:46
Compound	CAS Number	LOR	Unit	EP2503930-078	EP2503930-079	EP2503930-080	EP2503930-081	EP2503930-082
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	**0.08**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	**0.06**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	**0.16**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	**1.53**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	**2.04**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	**0.34**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	**0.08**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW314_250311	0089_PW315_250311	0089_PW316_250311	0089_PW405_250310	0089_PW407_250310
				Sampling date / time	11-Mar-2025 09:43	11-Mar-2025 10:02	11-Mar-2025 10:48	10-Mar-2025 14:45	10-Mar-2025 14:46
Compound	CAS Number	LOR	Unit		EP2503930-078	EP2503930-079	EP2503930-080	EP2503930-081	EP2503930-082
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	**0.34**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	**5.03**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.16**	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	**4.97**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**115**	**114**	**118**	**120**	**120**
13C8-PFOA	---	0.02	%		**112**	**106**	**110**	**111**	**106**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW409_250310	0089_PW411_250311	0089_PW413_250311	0089_PW415_250311	0089_PW374_250310
			Sampling date / time	10-Mar-2025 14:48	11-Mar-2025 13:27	11-Mar-2025 13:07	11-Mar-2025 12:46	10-Mar-2025 14:51
Compound	CAS Number	LOR	Unit	EP2503930-083	EP2503930-084	EP2503930-085	EP2503930-086	EP2503930-087
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW409_250310	0089_PW411_250311	0089_PW413_250311	0089_PW415_250311	0089_PW374_250310
				Sampling date / time	10-Mar-2025 14:48	11-Mar-2025 13:27	11-Mar-2025 13:07	11-Mar-2025 12:46	10-Mar-2025 14:51
Compound	CAS Number	LOR	Unit		EP2503930-083	EP2503930-084	EP2503930-085	EP2503930-086	EP2503930-087
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**121**	**116**	**120**	**117**	**123**
13C8-PFOA	---	0.02	%		**106**	**112**	**113**	**109**	**112**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	0089_PW375_250310	0089_PW378_250310	0089_QC111_25313	0089_PW329_250314	0089_PW357_250314
			Sampling date / time	10-Mar-2025 14:49	10-Mar-2025 14:50	13-Mar-2025 10:07	14-Mar-2025 08:57	14-Mar-2025 09:58
Compound	CAS Number	LOR	Unit	EP2503930-088	EP2503930-089	EP2503930-106	EP2503930-108	EP2503930-112
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.02**	**0.02**	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	**0.02**	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**0.06**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW375_250310	0089_PW378_250310	0089_QC111_25313	0089_PW329_250314	0089_PW357_250314
				Sampling date / time	10-Mar-2025 14:49	10-Mar-2025 14:50	13-Mar-2025 10:07	14-Mar-2025 08:57	14-Mar-2025 09:58
Compound	CAS Number	LOR	Unit		EP2503930-088	EP2503930-089	EP2503930-106	EP2503930-108	EP2503930-112
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.02**	**0.12**	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.04**	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.02**	**0.12**	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**123**	**120**	**106**	**126**	**106**
13C8-PFOA	---	0.02	%		**112**	**112**	**103**	**119**	**101**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_QC115_250314	0089_MW225_250311	0089_PW356_250314	---	---
				Sampling date / time	14-Mar-2025 10:00	11-Mar-2025 00:00	14-Mar-2025 00:00	---	---
Compound	CAS Number	LOR	Unit		EP2503930-114	EP2503930-115	EP2503930-116	-------	-------
					Result	Result	Result	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	---	---
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_QC115_250314	0089_MW225_250311	0089_PW356_250314	---	---
				Sampling date / time	14-Mar-2025 10:00	11-Mar-2025 00:00	14-Mar-2025 00:00	---	---
Compound	CAS Number	LOR	Unit		EP2503930-114	EP2503930-115	EP2503930-116	-------	-------
					Result	Result	Result	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		120	115	113	---	---
13C8-PFOA	---	0.02	%		121	105	103	---	---

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	76	136
13C8-PFOA	—	78	131

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	76	136
13C8-PFOA	—	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	—	65	140
13C8-PFOA	—	71	133

QUALITY CONTROL REPORT

Work Order	: **EP2503930**	Page	: 1 of 26
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Mar-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 19-Mar-2025
C-O-C number	: 80251	Issue Date	: 31-Mar-2025
Sampler	: [redacted]		
Site	: OMP week 1		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 116		
No. of samples analysed	: 116		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	SENIOR LAB TECH	Perth Organics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6451508)									
EP2503930-009	0089_SD330_250314	EA055: Moisture Content	----	0.1	%	27.8	27.9	0.0	0% - 20%
EP2503930-019	0089_SD351_250312	EA055: Moisture Content	----	0.1	%	25.2	25.4	0.7	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6451509)									
EP2503930-029	0089_SD316_250311	EA055: Moisture Content	----	0.1	%	27.3	26.9	1.5	0% - 20%
EP2503930-096	0089_QC105_250311	EA055: Moisture Content	----	0.1	%	23.8	24.0	0.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6465387)									
EP2503930-107	0089_QC112_250313	EA055: Moisture Content	----	0.1	%	35.0	28.8	19.3	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6449472)									
EP2503914-029	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0006	0.0004	28.6	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2503930-013	0089_SD304_250313	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6449472) - continued									
EP2503930-013	0089_SD304_250313	EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6449476)									
EP2503930-022	0089_SD381_250312	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2503930-032	0089_SD409_250310	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6449477)									
EP2503930-113	0089_QC114_250314	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2504051-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0037	0.0034	7.4	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	0.0040	0.0036	8.0	0% - 50%
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0491	0.0442	10.6	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0046	0.0042	10.9	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002 (0.0024)*	mg/kg	1.08	0.978	10.3	0% - 20%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002 (0.0024)*	mg/kg	0.0256	0.0243	5.4	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002 (0.0024)*	mg/kg	0.0396	0.0414	4.3	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6465359)									
EP2503930-107	0089_QC112_250313	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6465359) - continued									
EP2503930-107	0089_QC112_250313	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0011	0.0010	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6449472)									
EP2503914-029	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0004	0.0003	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2503930-013	0089_SD304_250313	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6449476)									
EP2503930-022	0089_SD381_250312	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6449476) - continued									
EP2503930-022	0089_SD381_250312	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2503930-032	0089_SD409_250310	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6449477)									
EP2503930-113	0089_QC114_250314	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2504051-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0046	0.0044	4.5	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0190	0.0171	10.4	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0015	0.0014	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0047	0.0042	11.4	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	0.0005	0.0004	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	0.0015	0.0016	8.6	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	0.0025	0.0030	17.2	0% - 50%
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	0.0011	0.0013	18.2	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	0.004	0.004	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6465359)									
EP2503930-107	0089_QC112_250313	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6449472)									
EP2503914-029	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2503930-013	0089_SD304_250313	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6449476)									

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6449476) - continued									
EP2503930-022	0089_SD381_250312	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2503930-032	0089_SD409_250310	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6449477)									
EP2503930-113	0089_QC114_250314	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448 09 7	0 0005	mg/kg	0 0005	0 0005	0 0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2504051-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	0.0341	0.0369	8.0	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6449477) - continued									
EP2504051-001	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	0.0008	0.0010	17.6	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6465359)									
EP2503930-107	0089_QC112_250313	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6449472)									
EP2503914-029	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2503930-013	0089_SD304_250313	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6449472) - continued									
EP2503930-013	0089_SD304_250313	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6449476)									
EP2503930-022	0089_SD381_250312	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2503930-032	0089_SD409_250310	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6449477)									
EP2503930-113	0089_QC114_250314	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2504051-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	0.0012	0.0012	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6465359)									
EP2503930-107	0089_QC112_250313	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6465359) - continued									
EP2503930-107	0089_QC112_250313	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6449472)									
EP2503914-029	Anonymous	EP231X: Sum of PFAS	---	0.0002	mg/kg	0.0010	0.0007	35.3	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0006	0.0004	40.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	0.0010	0.0007	35.3	No Limit
EP2503930-013	0089_SD304_250313	EP231X: Sum of PFAS	---	0.0002	mg/kg	0.0003	0.0004	28.6	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0003	0.0004	28.6	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	0.0003	0.0004	28.6	No Limit
EP231P: PFAS Sums (QC Lot: 6449476)									
EP2503930-022	0089_SD381_250312	EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2503930-032	0089_SD409_250310	EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6449477)									
EP2503930-113	0089_QC114_250314	EP231X: Sum of PFAS	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2504051-001	Anonymous	EP231X: Sum of PFAS	---	0.0002 (0.0024)*	mg/kg	1.28	1.18	8.7	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002 (0.0024)*	mg/kg	1.13	1.02	9.9	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	---	0.0002 (0.0024)*	mg/kg	1.17	1.06	9.9	0% - 20%
EP231P: PFAS Sums (QC Lot: 6465359)									
EP2503930-107	0089_QC112_250313	EP231X: Sum of PFAS	---	0.0002	mg/kg	0.0011	0.0010	9.5	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0011	0.0010	9.5	No Limit
		EP231X: Sum of PFAS (WA DER List)	---	0.0002	mg/kg	0.0011	0.0010	9.5	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449472)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	103	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	91.9	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	104	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	102	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	108	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	97.9	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449476)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	104	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	97.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	106	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	98.3	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	104	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	94.6	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449477)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	98.6	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.4	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	90.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	98.7	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	86.6	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	90.4	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	95.0	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6465359)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	92.3	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	83.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	100	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	92.2	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	98.8	70.0	130

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6465359) - continued								
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	103	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449472)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	96.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.6	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.0	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449476)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	107	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.2	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	136	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449477)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	94.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.6	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	129	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	64.0	136

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449477) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.8	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.4	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	106	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6465359)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	84.2	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	103	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449472)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	106	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449476)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	111	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.4	61.9	139

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449476) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449477)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.8	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.2	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	103	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.2	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6465359)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	103	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.2	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449472)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	99.6	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	103	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	105	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	95.8	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449476)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	112	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	100	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449476) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	102	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449477)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	93.2	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	88.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	102	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	82.1	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6465359)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	97.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	94.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	105	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	87.9	54.8	124
EP231P: PFAS Sums (QCLot: 6449472)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6449476)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6449477)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6465359)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450143)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450143) - continued								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	88.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	82.7	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	78.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	82.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	83.8	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	90.6	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	88.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450151)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	95.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	85.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	93.1	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	92.3	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	88.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450154)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	97.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	89.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	80.1	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	83.2	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	107	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	107	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450164)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	93.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	93.5	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	95.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	106	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.8	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	106	70.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450164) - continued								
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	98.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6450172)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	100	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	96.5	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	97.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	104	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	91.8	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	94.6	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	91.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6473378)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	93.3	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	102	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	88.7	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	85.8	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	88.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450143)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	83.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	85.0	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	84.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	87.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	83.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	84.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	87.6	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450151)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	93.7	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450151) - continued								
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	90.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	85.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	121	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	87.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	121	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	87.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	99.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450154)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	78.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	92.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	112	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	80.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	79.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	115	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450164)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	91.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	101	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	99.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	98.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450172)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6450172) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	92.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	116	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	92.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	126	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	101	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6473378)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	85.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	95.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	87.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	87.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	87.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	85.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	86.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	87.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	113	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6450143)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	93.3	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.8	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	93.4	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.2	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	90.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	92.4	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6450151)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	105	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	94.5	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	85.1	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.8	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	94.6	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	92.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6450154)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	84.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	90.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	111	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	102	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6450164)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	106	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	82.9	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	93.8	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	117	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	109	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	90.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6450172)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	109	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	95.5	68.0	141

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6450172) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.4	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	101	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	101	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6473378)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	80.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	95.3	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	104	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.0	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.4	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	91.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	94.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6450143)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	86.8	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	85.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	97.9	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	88.2	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6450151)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	92.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	84.3	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	95.8	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	84.6	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6450154)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	92.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	90.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	99.8	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	90.2	64.2	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6450164)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	95.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	92.5	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	101	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	129	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6450172)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	94.1	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	89.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	100	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	91.7	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6473378)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	88.3	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	79.7	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	111	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	95.8	64.2	133
EP231P: PFAS Sums (QCLot: 6450143)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6450151)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6450154)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6450164)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6450172)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 6450172) - continued								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6473378)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449472)							
EP2503914-030	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	101	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	111	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	94.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	106	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	104	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	106	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	98.3	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449476)							
EP2503930-023	0089_SD401_250312	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	110	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	118	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	94.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	100.0	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	98.0	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	105	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	91.7	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449477)							
EP2503930-113	0089_QC114_250314	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	95.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	89.3	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	101	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	103	70.0	132

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6449477) - continued							
EP2503930-113	0089_QC114_250314	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	89.2	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	92.5	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	95.0	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449472)							
EP2503914-030	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	97.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	97.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	96.8	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	94.1	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	99.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	104	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	100	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	99.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	108	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	102	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449476)							
EP2503930-023	0089_SD401_250312	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	102	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	99.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	102	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	98.0	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	104	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	98.8	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	105	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	111	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	104	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	129	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	104	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449477)							
EP2503930-113	0089_QC114_250314	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	95.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	96.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	92.8	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	84.8	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	128	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	83.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	130	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	117	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	96.4	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	77.2	66.0	139

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6449477) - continued							
EP2503930-113	0089_QC114_250314	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	103	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449472)							
EP2503914-030	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	102	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	113	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	108	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	108	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	111	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	108	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	111	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449476)							
EP2503930-023	0089_SD401_250312	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	101	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	114	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	100	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	109	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	99.4	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	115	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	94.8	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449477)							
EP2503930-113	0089_QC114_250314	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	110	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	94.6	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	85.2	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	97.1	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	97.3	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	110	63.0	144

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6449477) - continued							
EP2503930-113	0089_QC114_250314	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	96.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449472)							
EP2503914-030	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	107	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	105	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	111	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	117	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449476)							
EP2503930-023	0089_SD401_250312	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	99.6	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	105	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	104	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	106	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6449477)							
EP2503930-113	0089_QC114_250314	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	93.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	90.7	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	100	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	92.5	60.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2503930**	Page	: 1 of 19
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Mar-2025
Site	: OMP week 1	Issue Date	: 31-Mar-2025
Sampler	: [redacted]	No. of samples received	: 116
Order number	: 12641234/02.2.6	No. of samples analysed	: 116

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	61	4.92	5.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	83	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	83	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD405_250310, 0089_SD407_250310, 0089_SD409_250310, 0089_SD374_250310, 0089_SD375_250310, 0089_SD378_250310	**10-Mar-2025**	**----**	----	----	**20-Mar-2025**	24-Mar-2025	✓
HDPE Soil Jar (EA055)							
0089_SD306_250311, 0089_SD307_250311, 0089_SD314_250311, 0089_SD308_250311, 0089_SD315_250311, 0089_SD316_250311, 0089_SD411_250311, 0089_SD413_250311, 0089_SD415_250311, 0089_QC105_250311, 0089_QC106_250311	**11-Mar-2025**	**----**	----	----	**20-Mar-2025**	25-Mar-2025	✓
HDPE Soil Jar (EA055)							
0089_SD350_250312, 0089_SD351_250312, 0089_SD352_250312, 0089_SD380_250312, 0089_SD381_250312, 0089_SD401_250312, 0089_QC109_250312	**12-Mar-2025**	**----**	----	----	**20-Mar-2025**	26-Mar-2025	✓
HDPE Soil Jar (EA055)							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C) - Continued							
0089_SD304_250313, 0089_SD345_250313, 0089_SD367_250313, 0089_SD368_250313, 0089_SD369_250313	**13-Mar-2025**	---	---	---	**20-Mar-2025**	27-Mar-2025	✓
HDPE Soil Jar (EA055) 0089_QC112_250313	**13-Mar-2025**	---	---	---	**26-Mar-2025**	27-Mar-2025	✓
HDPE Soil Jar (EA055) 0089_SD330_250314, 0089_SD329_250314, 0089_SD357_250314, 0089_SD358_260314, 0089_QC114_250314	**14-Mar-2025**	---	---	---	**20-Mar-2025**	28-Mar-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD405_250310, 0089_SD407_250310, 0089_SD409_250310, 0089_SD374_250310, 0089_SD375_250310, 0089_SD378_250310	**10-Mar-2025**	**20-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250311, 0089_SD307_250311, 0089_SD314_250311, 0089_SD308_250311, 0089_SD315_250311, 0089_SD316_250311, 0089_SD411_250311, 0089_SD413_250311, 0089_SD415_250311, 0089_QC105_250311, 0089_QC106_250311	**11-Mar-2025**	**20-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250312, 0089_SD351_250312, 0089_SD352_250312, 0089_SD380_250312, 0089_SD381_250312, 0089_SD401_250312, 0089_QC109_250312	**12-Mar-2025**	**20-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250313, 0089_SD345_250313, 0089_SD367_250313, 0089_SD368_250313, 0089_SD369_250313	**13-Mar-2025**	**20-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC112_250313	**13-Mar-2025**	**26-Mar-2025**	09-Sep-2025	✓	**26-Mar-2025**	05-May-2025	✓
HDPE Soil Jar (EP231X) 0089_SD330_250314, 0089_SD329_250314, 0089_SD357_250314, 0089_SD358_260314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC114_250314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**21-Mar-2025**	29-Apr-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0089_SD405_250310, 0089_SD407_250310, 0089_SD409_250310, 0089_SD374_250310, 0089_SD375_250310, 0089_SD378_250310	**10-Mar-2025**	**20-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250311, 0089_SD307_250311, 0089_SD314_250311, 0089_SD308_250311, 0089_SD315_250311, 0089_SD316_250311, 0089_SD411_250311, 0089_SD413_250311, 0089_SD415_250311, 0089_QC105_250311, 0089_QC106_250311	**11-Mar-2025**	**20-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250312, 0089_SD351_250312, 0089_SD352_250312, 0089_SD380_250312, 0089_SD381_250312, 0089_SD401_250312, 0089_QC109_250312	**12-Mar-2025**	**20-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250313, 0089_SD345_250313, 0089_SD367_250313, 0089_SD368_250313, 0089_SD369_250313	**13-Mar-2025**	**20-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC112_250313	**13-Mar-2025**	**26-Mar-2025**	09-Sep-2025	✓	**26-Mar-2025**	05-May-2025	✓
HDPE Soil Jar (EP231X) 0089_SD330_250314, 0089_SD329_250314, 0089_SD357_250314, 0089_SD358_260314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC114_250314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**21-Mar-2025**	29-Apr-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0089_SD405_250310, 0089_SD407_250310, 0089_SD409_250310, 0089_SD374_250310, 0089_SD375_250310, 0089_SD378_250310	**10-Mar-2025**	**20-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250311, 0089_SD307_250311, 0089_SD314_250311, 0089_SD308_250311, 0089_SD315_250311, 0089_SD316_250311, 0089_SD411_250311, 0089_SD413_250311, 0089_SD415_250311, 0089_QC105_250311, 0089_QC106_250311	**11-Mar-2025**	**20-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250312, 0089_SD351_250312, 0089_SD352_250312, 0089_SD380_250312, 0089_SD381_250312, 0089_SD401_250312, 0089_QC109_250312	**12-Mar-2025**	**20-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250313, 0089_SD345_250313, 0089_SD367_250313, 0089_SD368_250313, 0089_SD369_250313	**13-Mar-2025**	**20-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC112_250313	**13-Mar-2025**	**26-Mar-2025**	09-Sep-2025	✓	**26-Mar-2025**	05-May-2025	✓
HDPE Soil Jar (EP231X) 0089_SD330_250314, 0089_SD329_250314, 0089_SD357_250314, 0089_SD358_260314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC114_250314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**21-Mar-2025**	29-Apr-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD405_250310, 0089_SD407_250310, 0089_SD409_250310, 0089_SD374_250310, 0089_SD375_250310, 0089_SD378_250310	**10-Mar-2025**	**20-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250311, 0089_SD307_250311, 0089_SD314_250311, 0089_SD308_250311, 0089_SD315_250311, 0089_SD316_250311, 0089_SD411_250311, 0089_SD413_250311, 0089_SD415_250311, 0089_QC105_250311, 0089_QC106_250311	**11-Mar-2025**	**20-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250312, 0089_SD351_250312, 0089_SD352_250312, 0089_SD380_250312, 0089_SD381_250312, 0089_SD401_250312, 0089_QC109_250312	**12-Mar-2025**	**20-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250313, 0089_SD345_250313, 0089_SD367_250313, 0089_SD368_250313, 0089_SD369_250313	**13-Mar-2025**	**20-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC112_250313	**13-Mar-2025**	**26-Mar-2025**	09-Sep-2025	✓	**26-Mar-2025**	05-May-2025	✓
HDPE Soil Jar (EP231X) 0089_SD330_250314, 0089_SD329_250314, 0089_SD357_250314, 0089_SD358_260314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC114_250314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**21-Mar-2025**	29-Apr-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0089_SD405_250310, 0089_SD407_250310, 0089_SD409_250310, 0089_SD374_250310, 0089_SD375_250310, 0089_SD378_250310	**10-Mar-2025**	**20-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250311, 0089_SD307_250311, 0089_SD314_250311, 0089_SD308_250311, 0089_SD315_250311, 0089_SD316_250311, 0089_SD411_250311, 0089_SD413_250311, 0089_SD415_250311, 0089_QC105_250311, 0089_QC106_250311	**11-Mar-2025**	**20-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250312, 0089_SD351_250312, 0089_SD352_250312, 0089_SD380_250312, 0089_SD381_250312, 0089_SD401_250312, 0089_QC109_250312	**12-Mar-2025**	**20-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250313, 0089_SD345_250313, 0089_SD367_250313, 0089_SD368_250313, 0089_SD369_250313	**13-Mar-2025**	**20-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC112_250313	**13-Mar-2025**	**26-Mar-2025**	09-Sep-2025	✓	**26-Mar-2025**	05-May-2025	✓
HDPE Soil Jar (EP231X) 0089_SD330_250314, 0089_SD329_250314, 0089_SD357_250314, 0089_SD358_260314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	29-Apr-2025	✓
HDPE Soil Jar (EP231X) 0089_QC114_250314	**14-Mar-2025**	**20-Mar-2025**	10-Sep-2025	✓	**21-Mar-2025**	29-Apr-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_MW226_250310, 0089_MW228_250310, 0089_SW406_250310, 0089_SW410_250310, 0089_SW317_250310, 0089_SW318_250310, 0089_SW319_250310, 0089_PW405_250310, 0089_PW407_250310, 0089_PW409_250310, 0089_PW374_250310, 0089_PW375_250310, 0089_PW378_250310, 0089_QC301_250310, 0089_QC401_250310, 0089_QC102_250310, 0089_QC103_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW408_250310, 0089_QC101_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**24-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW553_250311, 0089_MW010_250311, 0089_SW310_250311, 0089_SW311_250311, 0089_SW414_250311, 0089_SW416_250311, 0089_PW306_250311, 0089_PW307_250311, 0089_PW308_250311, 0089_PW314_250311, 0089_PW315_250311, 0089_PW316_250311, 0089_PW411_250311, 0089_PW413_250311, 0089_PW415_250311, 0089_QC104_250311, 0089_QC402_250311, 0089_QC302_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250311, 0089_SW412_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**24-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW225_250311	**11-Mar-2025**	**28-Mar-2025**	07-Sep-2025	✓	**28-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW158_250312, 0089_MW161_250312, 0089_MW171_250312, 0089_PW351_250312, 0089_PW350_250312, 0089_PW380_250312, 0089_PW381_250312, 0089_QC303_250312, 0089_QC403_250312, 0089_QC107_250312, 0089_QC110_250312, 0089_QC108_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW166_250312, 0089_SW353_250312, 0089_SW382_250312, 0089_SW383_250312, 0089_SW384_250312, 0089_PW352_250312, 0089_PW401_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**24-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250313, 0089_SW370_250313, 0089_SW372_250313, 0089_PW345_250313, 0089_PW369_250313, 0089_QC111_25313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0089_SW371_250313, 0089_SW373_250313, 0089_PW304_250313, 0089_PW367_250313, 0089_PW368_250313, 0089_PW346_250313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250314, 0080_PW358_250314, 0089_PW330_250314, 0089_QC113_250314, 0089_PW357_250314, 0089_QC115_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW152_250314, 0089_SW154_250314, 0089_SW156_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW356_250314	**14-Mar-2025**	**28-Mar-2025**	10-Sep-2025	✓	**28-Mar-2025**	10-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0089_MW226_250310, 0089_MW228_250310, 0089_SW406_250310, 0089_SW410_250310, 0089_SW317_250310, 0089_SW318_250310, 0089_SW319_250310, 0089_PW405_250310, 0089_PW407_250310, 0089_PW409_250310, 0089_PW374_250310, 0089_PW375_250310, 0089_PW378_250310, 0089_QC301_250310, 0089_QC401_250310, 0089_QC102_250310, 0089_QC103_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW408_250310, 0089_QC101_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**24-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW553_250311, 0089_MW010_250311, 0089_SW310_250311, 0089_SW311_250311, 0089_SW414_250311, 0089_SW416_250311, 0089_PW306_250311, 0089_PW307_250311, 0089_PW308_250311, 0089_PW314_250311, 0089_PW315_250311, 0089_PW316_250311, 0089_PW411_250311, 0089_PW413_250311, 0089_PW415_250311, 0089_QC104_250311, 0089_QC402_250311, 0089_QC302_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250311, 0089_SW412_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**24-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW225_250311	**11-Mar-2025**	**28-Mar-2025**	07-Sep-2025	✓	**28-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW158_250312, 0089_MW161_250312, 0089_MW171_250312, 0089_PW351_250312, 0089_PW350_250312, 0089_PW380_250312, 0089_PW381_250312, 0089_QC303_250312, 0089_QC403_250312, 0089_QC107_250312, 0089_QC110_250312, 0089_QC108_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW166_250312, 0089_SW353_250312, 0089_SW382_250312, 0089_SW383_250312, 0089_SW384_250312, 0089_PW352_250312, 0089_PW401_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**24-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250313, 0089_SW370_250313, 0089_SW372_250313, 0089_PW345_250313, 0089_PW369_250313, 0089_QC111_25313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0089_SW371_250313, 0089_SW373_250313, 0089_PW304_250313, 0089_PW367_250313, 0089_PW368_250313, 0089_PW346_250313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250314, 0089_PW330_250314, 0089_PW357_250314, 0080_PW358_250314, 0089_QC113_250314, 0089_QC115_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW152_250314, 0089_SW154_250314, 0089_SW156_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW356_250314	**14-Mar-2025**	**28-Mar-2025**	10-Sep-2025	✓	**28-Mar-2025**	10-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0089_MW226_250310, 0089_MW228_250310, 0089_SW406_250310, 0089_SW410_250310, 0089_SW317_250310, 0089_SW318_250310, 0089_SW319_250310, 0089_PW405_250310, 0089_PW407_250310, 0089_PW409_250310, 0089_PW374_250310, 0089_PW375_250310, 0089_PW378_250310, 0089_QC301_250310, 0089_QC401_250310, 0089_QC102_250310, 0089_QC103_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW408_250310, 0089_QC101_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**24-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW553_250311, 0089_MW010_250311, 0089_SW310_250311, 0089_SW311_250311, 0089_SW414_250311, 0089_SW416_250311, 0089_PW306_250311, 0089_PW307_250311, 0089_PW308_250311, 0089_PW314_250311, 0089_PW315_250311, 0089_PW316_250311, 0089_PW411_250311, 0089_PW413_250311, 0089_PW415_250311, 0089_QC104_250311, 0089_QC402_250311, 0089_QC302_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250311, 0089_SW412_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**24-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW225_250311	**11-Mar-2025**	**28-Mar-2025**	07-Sep-2025	✓	**28-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW158_250312, 0089_MW161_250312, 0089_MW171_250312, 0089_PW351_250312, 0089_PW350_250312, 0089_PW380_250312, 0089_PW381_250312, 0089_QC303_250312, 0089_QC403_250312, 0089_QC107_250312, 0089_QC110_250312, 0089_QC108_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW166_250312, 0089_SW353_250312, 0089_SW382_250312, 0089_SW383_250312, 0089_SW384_250312, 0089_PW352_250312, 0089_PW401_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**24-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250313, 0089_SW370_250313, 0089_SW372_250313, 0089_PW345_250313, 0089_PW369_250313, 0089_QC111_25313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0089_SW371_250313, 0089_SW373_250313, 0089_PW304_250313, 0089_PW367_250313, 0089_PW368_250313, 0089_PW346_250313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250314, 0080_PW358_250314, 0089_PW330_250314, 0089_QC113_250314, 0089_PW357_250314, 0089_QC115_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW152_250314, 0089_SW154_250314, 0089_SW156_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW356_250314	**14-Mar-2025**	**28-Mar-2025**	10-Sep-2025	✓	**28-Mar-2025**	10-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_MW226_250310, 0089_MW228_250310, 0089_SW406_250310, 0089_SW410_250310, 0089_SW317_250310, 0089_SW318_250310, 0089_SW319_250310, 0089_PW405_250310, 0089_PW407_250310, 0089_PW409_250310, 0089_PW374_250310, 0089_PW375_250310, 0089_PW378_250310, 0089_QC301_250310, 0089_QC401_250310, 0089_QC102_250310, 0089_QC103_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_SW408_250310, 0089_QC101_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**24-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW553_250311, 0089_MW010_250311, 0089_SW310_250311, 0089_SW311_250311, 0089_SW414_250311, 0089_SW416_250311, 0089_PW306_250311, 0089_PW307_250311, 0089_PW308_250311, 0089_PW314_250311, 0089_PW315_250311, 0089_PW316_250311, 0089_PW411_250311, 0089_PW413_250311, 0089_PW415_250311, 0089_QC104_250311, 0089_QC402_250311, 0089_QC302_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_SW309_250311, 0089_SW412_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**24-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW225_250311	**11-Mar-2025**	**28-Mar-2025**	07-Sep-2025	✓	**28-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW158_250312, 0089_MW161_250312, 0089_MW171_250312, 0089_PW351_250312, 0089_PW350_250312, 0089_PW380_250312, 0089_PW381_250312, 0089_QC303_250312, 0089_QC403_250312, 0089_QC107_250312, 0089_QC110_250312, 0089_QC108_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW166_250312, 0089_SW353_250312, 0089_SW382_250312, 0089_SW383_250312, 0089_SW384_250312, 0089_PW352_250312, 0089_PW401_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**24-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_SW305_250313, 0089_SW370_250313, 0089_SW372_250313, 0089_PW345_250313, 0089_PW369_250313, 0089_QC111_25313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0089_SW371_250313, 0089_SW373_250313, 0089_PW304_250313, 0089_PW367_250313, 0089_PW368_250313, 0089_PW346_250313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250314, 0080_PW358_250314, 0089_PW330_250314, 0089_QC113_250314, 0089_PW357_250314, 0089_QC115_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW152_250314, 0089_SW154_250314, 0089_SW156_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW356_250314	**14-Mar-2025**	**28-Mar-2025**	10-Sep-2025	✓	**28-Mar-2025**	10-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0089_MW226_250310, 0089_MW228_250310, 0089_SW406_250310, 0089_SW410_250310, 0089_SW317_250310, 0089_SW318_250310, 0089_SW319_250310, 0089_PW405_250310, 0089_PW407_250310, 0089_PW409_250310, 0089_PW374_250310, 0089_PW375_250310, 0089_PW378_250310, 0089_QC301_250310, 0089_QC401_250310, 0089_QC102_250310, 0089_QC103_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**20-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW408_250310, 0089_QC101_250310	**10-Mar-2025**	**19-Mar-2025**	06-Sep-2025	✓	**24-Mar-2025**	06-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW553_250311, 0089_MW010_250311, 0089_SW310_250311, 0089_SW311_250311, 0089_SW414_250311, 0089_SW416_250311, 0089_PW306_250311, 0089_PW307_250311, 0089_PW308_250311, 0089_PW314_250311, 0089_PW315_250311, 0089_PW316_250311, 0089_PW411_250311, 0089_PW413_250311, 0089_PW415_250311, 0089_QC104_250311, 0089_QC402_250311, 0089_QC302_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**20-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250311, 0089_SW412_250311	**11-Mar-2025**	**19-Mar-2025**	07-Sep-2025	✓	**24-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW225_250311	**11-Mar-2025**	**28-Mar-2025**	07-Sep-2025	✓	**28-Mar-2025**	07-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW158_250312, 0089_MW161_250312, 0089_MW171_250312, 0089_PW351_250312, 0089_PW350_250312, 0089_PW380_250312, 0089_PW381_250312, 0089_QC303_250312, 0089_QC403_250312, 0089_QC107_250312, 0089_QC110_250312, 0089_QC108_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**20-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW166_250312, 0089_SW353_250312, 0089_SW382_250312, 0089_SW383_250312, 0089_SW384_250312, 0089_PW352_250312, 0089_PW401_250312	**12-Mar-2025**	**19-Mar-2025**	08-Sep-2025	✓	**24-Mar-2025**	08-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250313, 0089_SW370_250313, 0089_SW372_250313, 0089_PW345_250313, 0089_PW369_250313, 0089_QC111_25313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**20-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0089_SW371_250313, 0089_SW373_250313, 0089_PW304_250313, 0089_PW367_250313, 0089_PW368_250313, 0089_PW346_250313	**13-Mar-2025**	**19-Mar-2025**	09-Sep-2025	✓	**24-Mar-2025**	09-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250314, 0080_PW358_250314, 0089_PW330_250314, 0089_QC113_250314, 0089_PW357_250314, 0089_QC115_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**20-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW152_250314, 0089_SW154_250314, 0089_SW156_250314	**14-Mar-2025**	**19-Mar-2025**	10-Sep-2025	✓	**24-Mar-2025**	10-Sep-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW356_250314	**14-Mar-2025**	**28-Mar-2025**	10-Sep-2025	✓	**28-Mar-2025**	10-Sep-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	5	35	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	61	11.48	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	61	6.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	61	6.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	61	4.92	5.00	×	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	83	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	83	7.23	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	83	7.23	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	83	0.00	5.00	×	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. A portion of homogenised sample is extracted along with isotope dilution standards (where commercially available) in a solution of ammonium acetate in acetonitrile/methanol. Where relevant, interferences from co-extracted organics are removed using dispersive clean-up media (dSPE). A portion of extract is combined with an equal volume of reagent water and filtered for instrumental analysis.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2503930**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 5
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 80251	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: OMP week 1		
Sampler	: [redacted]		

Dates

Date Samples Received	: 18-Mar-2025 09:00	Issue Date	: 20-Mar-2025
Client Requested Due Date	: 26-Mar-2025	Scheduled Reporting Date	: **26-Mar-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 3	Temperature	: 11.5 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 114 / 113

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2503930-009	14-Mar-2025 09:49	0089_SD330_250314	✓	✓
EP2503930-010	14-Mar-2025 08:55	0089_SD329_250314	✓	✓
EP2503930-011	14-Mar-2025 09:57	0089_SD357_250314	✓	✓
EP2503930-012	14-Mar-2025 09:05	0089_SD358_260314	✓	✓
EP2503930-013	13-Mar-2025 14:01	0089_SD304_250313	✓	✓
EP2503930-014	13-Mar-2025 10:06	0089_SD345_250313	✓	✓
EP2503930-015	13-Mar-2025 10:27	0089_SD367_250313	✓	✓
EP2503930-016	13-Mar-2025 12:42	0089_SD368_250313	✓	✓
EP2503930-017	12-Mar-2025 14:37	0089_SD350_250312	✓	✓
EP2503930-018	13-Mar-2025 09:41	0089_SD369_250313	✓	✓
EP2503930-019	12-Mar-2025 14:40	0089_SD351_250312	✓	✓
EP2503930-020	12-Mar-2025 14:38	0089_SD352_250312	✓	✓
EP2503930-021	12-Mar-2025 14:37	0089_SD380_250312	✓	✓
EP2503930-022	12-Mar-2025 14:39	0089_SD381_250312	✓	✓
EP2503930-023	12-Mar-2025 14:36	0089_SD401_250312	✓	✓
EP2503930-024	11-Mar-2025 09:24	0089_SD306_250311	✓	✓
EP2503930-025	11-Mar-2025 10:11	0089_SD307_250311	✓	✓
EP2503930-026	11-Mar-2025 09:42	0089_SD314_250311	✓	✓
EP2503930-027	11-Mar-2025 11:08	0089_SD308_250311	✓	✓
EP2503930-028	11-Mar-2025 10:01	0089_SD315_250311	✓	✓
EP2503930-029	11-Mar-2025 10:49	0089_SD316_250311	✓	✓
EP2503930-030	10-Mar-2025 14:29	0089_SD405_250310	✓	✓
EP2503930-031	10-Mar-2025 14:31	0089_SD407_250310	✓	✓
EP2503930-032	10-Mar-2025 14:31	0089_SD409_250310	✓	✓
EP2503930-033	11-Mar-2025 13:27	0089_SD411_250311	✓	✓
EP2503930-034	11-Mar-2025 13:05	0089_SD413_250311	✓	✓
EP2503930-035	10-Mar-2025 14:34	0089_SD374_250310	✓	✓
EP2503930-036	11-Mar-2025 12:45	0089_SD415_250311	✓	✓
EP2503930-037	10-Mar-2025 14:32	0089_SD375_250310	✓	✓
EP2503930-038	10-Mar-2025 14:35	0089_SD378_250310	✓	✓
EP2503930-096	11-Mar-2025 10:52	0089_QC105_250311	✓	✓
EP2503930-097	11-Mar-2025 13:28	0089_QC106_250311	✓	✓
EP2503930-104	12-Mar-2025 14:41	0089_QC109_250312	✓	✓
EP2503930-113	14-Mar-2025 10:00	0089_QC114_250314	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2503930-001	12-Mar-2025 14:32	0089_MW158_250312		✓
EP2503930-002	12-Mar-2025 14:34	0089_MW161_250312		✓
EP2503930-003	12-Mar-2025 14:33	0089_MW166_250312		✓
EP2503930-004	12-Mar-2025 14:35	0089_MW171_250312		✓
EP2503930-005	10-Mar-2025 14:52	0089_MW226_250310		✓
EP2503930-006	10-Mar-2025 14:52	0089_MW228_250310		✓
EP2503930-007	11-Mar-2025 14:39	0089_MW553_250311		✓
EP2503930-008	11-Mar-2025 14:53	0089_MW010_250311		✓
EP2503930-039	14-Mar-2025 09:50	0089_SW152_250314		✓
EP2503930-040	14-Mar-2025 09:50	0089_SW154_250314		✓
EP2503930-041	14-Mar-2025 09:16	0089_SW156_250314		✓
EP2503930-042	13-Mar-2025 14:09	0089_SW305_250313		✓
EP2503930-043	13-Mar-2025 10:06	0089_SW370_250313		✓
EP2503930-044	13-Mar-2025 12:44	0089_SW371_250313		✓
EP2503930-045	13-Mar-2025 14:02	0089_SW372_250313		✓
EP2503930-046	13-Mar-2025 14:06	0089_SW373_250313		✓
EP2503930-047	12-Mar-2025 14:43	0089_SW353_250312		✓
EP2503930-048	12-Mar-2025 14:41	0089_SW382_250312		✓
EP2503930-049	12-Mar-2025 14:37	0089_SW383_250312		✓
EP2503930-050	12-Mar-2025 14:41	0089_SW384_250312		✓
EP2503930-051	11-Mar-2025 09:23	0089_SW309_250311		✓
EP2503930-052	11-Mar-2025 10:26	0089_SW310_250311		✓
EP2503930-053	11-Mar-2025 11:09	0089_SW311_250311		✓
EP2503930-054	10-Mar-2025 14:42	0089_SW406_250310		✓
EP2503930-055	10-Mar-2025 14:42	0089_SW408_250310		✓
EP2503930-056	10-Mar-2025 14:43	0089_SW410_250310		✓
EP2503930-057	11-Mar-2025 13:27	0089_SW412_250311		✓
EP2503930-058	11-Mar-2025 13:06	0089_SW414_250311		✓
EP2503930-059	11-Mar-2025 12:45	0089_SW416_250311		✓
EP2503930-060	10-Mar-2025 14:37	0089_SW317_250310		✓
EP2503930-061	10-Mar-2025 14:40	0089_SW318_250310		✓
EP2503930-062	10-Mar-2025 14:41	0089_SW319_250310		✓
EP2503930-063	13-Mar-2025 14:10	0089_PW304_250313		✓
EP2503930-064	13-Mar-2025 10:05	0089_PW345_250313		✓
EP2503930-065	13-Mar-2025 10:29	0089_PW367_250313		✓
EP2503930-066	13-Mar-2025 12:45	0089_PW368_250313		✓
EP2503930-067	13-Mar-2025 09:43	0089_PW369_250313		✓
EP2503930-068	12-Mar-2025 14:38	0089_PW351_250312		✓
EP2503930-069	12-Mar-2025 14:36	0089_PW350_250312		✓
EP2503930-070	12-Mar-2025 14:42	0089_PW352_250312		✓
EP2503930-071	12-Mar-2025 14:43	0089_PW380_250312		✓

			(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2503930-072	12-Mar-2025 14:38	0089_PW381_250312		✓
EP2503930-073	12-Mar-2025 14:40	0089_PW401_250312		✓
EP2503930-074	13-Mar-2025 14:11	0089_PW346_250313		✓
EP2503930-075	11-Mar-2025 09:43	0089_PW306_250311		✓
EP2503930-076	11-Mar-2025 10:09	0089_PW307_250311		✓
EP2503930-077	11-Mar-2025 11:07	0089_PW308_250311		✓
EP2503930-078	11-Mar-2025 09:43	0089_PW314_250311		✓
EP2503930-079	11-Mar-2025 10:02	0089_PW315_250311		✓
EP2503930 080	11 Mar 2025 10 48	0089 PW316 250311		✓
EP2503930-081	10-Mar-2025 14:45	0089_PW405_250310		✓
EP2503930-082	10-Mar-2025 14:46	0089_PW407_250310		✓
EP2503930-083	10-Mar-2025 14:48	0089_PW409_250310		✓
EP2503930-084	11-Mar-2025 13:27	0089_PW411_250311		✓
EP2503930-085	11-Mar-2025 13:07	0089_PW413_250311		✓
EP2503930-086	11-Mar-2025 12:46	0089_PW415_250311		✓
EP2503930-087	10-Mar-2025 14:51	0089_PW374_250310		✓
EP2503930-088	10-Mar-2025 14:49	0089_PW375_250310		✓
EP2503930-089	10-Mar-2025 14:50	0089_PW378_250310		✓
EP2503930 090	10 Mar 2025 14 44	0089 QC301 250310		✓
EP2503930-091	10-Mar-2025 14:45	0089_QC401_250310		✓
EP2503930-092	10-Mar-2025 14:48	0089_QC102_250310		✓
EP2503930-093	10-Mar-2025 14:49	0089_QC101_250310		✓
EP2503930-094	10-Mar-2025 14:50	0089_QC103_250310		✓
EP2503930-095	11-Mar-2025 10:51	0089_QC104_250311		✓
EP2503930-098	11-Mar-2025 13:59	0089_QC402_250311		✓
EP2503930-099	11-Mar-2025 14:00	0089_QC302_250311		✓
EP2503930-100	12-Mar-2025 14:34	0089_QC303_250312		✓
EP2503930-101	12-Mar-2025 14:35	0089_QC403_250312		✓
EP2503930 102	12 Mar 2025 14 35	0089 QC107 250312		✓
EP2503930-103	12-Mar-2025 14:39	0089_QC110_250312		✓
EP2503930-105	12-Mar-2025 14:42	0089_QC108_250312		✓
EP2503930-106	13-Mar-2025 10:07	0089_QC111_25313		✓
EP2503930-107	13-Mar-2025 10:30	0089_QC112_250313	✓	
EP2503930-108	14-Mar-2025 08:57	0089_PW329_250314		✓
EP2503930-109	14-Mar-2025 09:06	0080_PW358_250314		✓
EP2503930-110	14-Mar-2025 09:52	0089_PW330_250314		✓
EP2503930-111	14-Mar-2025 09:53	0089_QC113_250314		✓
EP2503930-112	14-Mar-2025 09:58	0089_PW357_250314		✓
EP2503930 114	14 Mar 2025 10 00	0089 QC115 250314		✓

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:

SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

RELINQUISHED BY:	[redacted]ED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 13/3 9am	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW158_250312		12/03/2025 02:32 PM	WATER	ALS: 2 Non ALS: 0	No		X					
002	0089_MW161_250312		12/03/2025 02:34 PM	WATER	ALS: 2 Non ALS: 0	No		X					
003	0089_MW166_250312		12/03/2025 02:33 PM	WATER	ALS: 2 Non ALS: 0	No		X					
004	0089_MW171_250312		12/03/2025 02:35 PM	WATER	ALS: 2 Non ALS: 0	No		X					
005	0089_MW226_250310		10/03/2025 02:52 PM	WATER	ALS: 2 Non ALS: 0	No		X					
006	0089_MW228_250310		10/03/2025 02:52 PM	WATER	ALS: 2 Non ALS: 0	No		X					
007	0089_MW553_250311		11/03/2025 02:39 PM	WATER	ALS: 2 Non ALS: 0	No		X					

Environmental Division Perth

Work Order Reference

EP2503930

Telephone : +61-8-9406 1301

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_MW010_250311		11/03/2025 02:53 PM	WATER	ALS: 2 Non ALS: 0	No		X					
009	0089_SD330_250314		14/03/2025 09:49 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
010	0089_SD329_250314		14/03/2025 08:55 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
011	0089_SD357_250314		14/03/2025 09:57 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
012	0089_SD358_260314		14/03/2025 09:05 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
013	0089_SD304_250313		13/03/2025 02:01 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
014	0089_SD345_250313		13/03/2025 10:06 AM	SOIL	ALS: 1 Non ALS: 0	No				X			

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
O15	0089_SD367_250313		13/03/2025 10:27 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
O16	0089_SD368_250313		13/03/2025 12:42 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
O17	0089_SD350_250312		12/03/2025 02:37 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
O18	0089_SD369_250313		13/03/2025 09:41 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
O19	0089_SD351_250312		12/03/2025 02:40 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
O20	0089_SD352_250312		12/03/2025 02:38 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
O21	0089_SD380_250312		12/03/2025 02:37 PM	SOIL	ALS: 1 Non ALS: 0	No				X			

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_SD381_250312		12/03/2025 02:39 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
023	0089_SD401_250312		12/03/2025 02:36 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
024	0089_SD306_250311		11/03/2025 09:24 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
025	0089_SD307_250311		11/03/2025 10:11 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
026	0089_SD314_250311		11/03/2025 09:42 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
027	0089_SD308_250311		11/03/2025 11:08 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
028	0089_SD315_250311		11/03/2025 10:01 AM	SOIL	ALS: 1 Non ALS: 0	No				X			

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_SD316_250311		11/03/2025 10:49 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
030	0089_SD405_250310		10/03/2025 02:29 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
031	0089_SD407_250310		10/03/2025 02:31 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
032	0089_SD409_250310		10/03/2025 02:31 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
033	0089_SD411_250311		11/03/2025 01:27 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
034	0089_SD413_250311		11/03/2025 01:05 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
035	0089_SD374_250310		10/03/2025 02:34 PM	SOIL	ALS: 1 Non ALS: 0	No				X			

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	0089_SD415_250311		11/03/2025 12:45 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
037	0089_SD375_250310		10/03/2025 02:32 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
038	0089_SD378_250310_0.10		10/03/2025 02:35 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
039	0089_SW152_250314		14/03/2025 09:50 AM	WATER	ALS: 2 Non ALS: 0	No					X		
040	0089_SW154_250314		14/03/2025 09:50 AM	WATER	ALS: 2 Non ALS: 0	No					X		
041	0089_SW156_250314		14/03/2025 09:16 AM	WATER	ALS: 2 Non ALS: 0	No					X		
042	0089_SW305_250313		13/03/2025 02:09 PM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0089_SW370_250313		13/03/2025 10:06 AM	WATER	ALS: 2 Non ALS: 0	No					X		
044	0089_SW371_250313		13/03/2025 12:44 PM	WATER	ALS: 2 Non ALS: 0	No					X		
045	0089_SW372_250313		13/03/2025 02:02 PM	WATER	ALS: 2 Non ALS: 0	No					X		
046	0089_SW373_250313		13/03/2025 02:06 PM	WATER	ALS: 2 Non ALS: 0	No					X		
047	0089_SW353_250312		12/03/2025 02:43 PM	WATER	ALS: 2 Non ALS: 0	No		X					
048	0089_SW382_250312		12/03/2025 02:41 PM	WATER	ALS: 2 Non ALS: 0	No		X					
049	0089_SW383_250312		12/03/2025 02:37 PM	WATER	ALS: 2 Non ALS: 0	No		X					

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0089_SW384_250312		12/03/2025 02:41 PM	WATER	ALS: 2 Non ALS: 0	No		X					
051	0089_SW309_250311		11/03/2025 09:23 AM	WATER	ALS: 2 Non ALS: 0	No					X		
052	0089_SW310_250311		11/03/2025 10:26 AM	WATER	ALS: 2 Non ALS: 0	No					X		
053	0089_SW311_250311		11/03/2025 11:09 AM	WATER	ALS: 2 Non ALS: 0	No					X		
054	0089_SW406_250310		10/03/2025 02:42 PM	WATER	ALS: 2 Non ALS: 0	No					X		
055	0089_SW408_250310		10/03/2025 02:42 PM	WATER	ALS: 2 Non ALS: 0	No					X		
056	0089_SW410_250310		10/03/2025 02:43 PM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:
QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:
/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
057	0089_SW412_250311		11/03/2025 01:27 PM	WATER	ALS: 2 Non ALS: 0	No					X		
058	0089_SW414_250311		11/03/2025 01:06 PM	WATER	ALS: 2 Non ALS: 0	No					X		
059	0089_SW416_250311		11/03/2025 12:45 PM	WATER	ALS: 2 Non ALS: 0	No					X		
060	0089_SW317_250310		10/03/2025 02:37 PM	WATER	ALS: 2 Non ALS: 0	No					X		
061	0089_SW318_250310		10/03/2025 02:40 PM	WATER	ALS: 2 Non ALS: 0	No					X		
062	0089_SW319_250310		10/03/2025 02:41 PM	WATER	ALS: 2 Non ALS: 0	No					X		
063	0089_PW304_250313		13/03/2025 02:10 PM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0089_PW345_250313		13/03/2025 10:05 AM	WATER	ALS: 2 Non ALS: 0	No					X		
065	0089_PW367_250313		13/03/2025 10:29 AM	WATER	ALS: 2 Non ALS: 0	No					X		
066	0089_PW368_250313		13/03/2025 12:45 PM	WATER	ALS: 2 Non ALS: 0	No					X		
067	0089_PW369_250313		13/03/2025 09:43 AM	WATER	ALS: 2 Non ALS: 0	No					X		
068	0089_PW351_250312		12/03/2025 02:38 PM	WATER	ALS: 2 Non ALS: 0	No		X					
069	0089_PW350_250312		12/03/2025 02:36 PM	WATER	ALS: 2 Non ALS: 0	No		X					
070	0089_PW352_250312		12/03/2025 02:42 PM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
071	0089_PW380_250312		12/03/2025 02:43 PM	WATER	ALS: 2 Non ALS: 0	No					X		
072	0089_PW381_250312		12/03/2025 02:38 PM	WATER	ALS: 2 Non ALS: 0	No		X					
073	0089_PW401_250312		12/03/2025 02:40 PM	WATER	ALS: 2 Non ALS: 0	No		X					
074	0089_PW346_250313		13/03/2025 02:11 PM	WATER	ALS: 2 Non ALS: 0	No					X		
075	0089_PW306_250311		11/03/2025 09:43 AM	WATER	ALS: 2 Non ALS: 0	No					X		
076	0089_PW307_250311		11/03/2025 10:09 AM	WATER	ALS: 2 Non ALS: 0	No					X		
077	0089_PW308_250311		11/03/2025 11:07 AM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
078	0089_PW314_250311		11/03/2025 09:43 AM	WATER	ALS: 2 Non ALS: 0	No					X		
079	0089_PW315_250311		11/03/2025 10:02 AM	WATER	ALS: 2 Non ALS: 0	No					X		
080	0089_PW316_250311		11/03/2025 10:48 AM	WATER	ALS: 2 Non ALS: 0	No					X		
081	0089_PW405_250310		10/03/2025 02:45 PM	WATER	ALS: 2 Non ALS: 0	No					X		
082	0089_PW407_250310		10/03/2025 02:46 PM	WATER	ALS: 2 Non ALS: 0	No					X		
083	0089_PW409_250310		10/03/2025 02:48 PM	WATER	ALS: 2 Non ALS: 0	No					X		
084	0089_PW411_250311		11/03/2025 01:27 PM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
085	0089_PW413_250311		11/03/2025 01:07 PM	WATER	ALS: 2 Non ALS: 0	No					X		
086	0089_PW415_250311		11/03/2025 12:46 PM	WATER	ALS: 2 Non ALS: 0	No					X		
087	0089_PW374_250310		10/03/2025 02:51 PM	WATER	ALS: 2 Non ALS: 0	No					X		
088	0089_PW375_250310		10/03/2025 02:49 PM	WATER	ALS: 2 Non ALS: 0	No					X		
089	0089_PW378_250310		10/03/2025 02:50 PM	WATER	ALS: 2 Non ALS: 0	No					X		
090	0089_QC301_250310		10/03/2025 02:44 PM	WATER	ALS: 2 Non ALS: 0	No			Partial 1/3				
091	0089_QC401_250310		10/03/2025 02:45 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						

CHAIN OF CUSTODY

COC#: 80251 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
092	0089_QC102_250310		10/03/2025 02:48 PM	WATER	ALS: 2 Non ALS: 0	No					X		
093	0089_QC101_250310		10/03/2025 02:49 PM	WATER	ALS: 2 Non ALS: 0	No					X		
094	0089_QC103_250310		10/03/2025 02:50 PM	WATER	ALS: 2 Non ALS: 0	No		X					
095	0089_QC104_250311		11/03/2025 10:51 AM	WATER	ALS: 2 Non ALS: 0	No					X		
096	0089_QC105_250311		11/03/2025 10:52 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
097	0089_QC106_250311		11/03/2025 01:28 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
098	0089_QC402_250311		11/03/2025 01:59 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
099	0089_QC302_250311		11/03/2025 02:00 PM	WATER	ALS: 2 Non ALS: 0	No			Partial 1/3				
100	0089_QC303_250312		12/03/2025 02:34 PM	WATER	ALS: 2 Non ALS: 0	No			Partial 1/3				
101	0089_QC403_250312		12/03/2025 02:35 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3						
102	0089_QC107_250312		12/03/2025 02:35 PM	WATER	ALS: 2 Non ALS: 0	No					X		
103	0089_QC110_250312		12/03/2025 02:39 PM	WATER	ALS: 2 Non ALS: 0	No		X					
104	0089_QC109_250312		12/03/2025 02:41 PM	SOIL	ALS: 1 Non ALS: 0	No				X			
105	0089_QC108_250312		12/03/2025 02:42 PM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
106	0089_QC111_25313		13/03/2025 10:07 AM	WATER	ALS: 2 Non ALS: 0	No					X		
107	0089_QC112_250313		13/03/2025 10:30 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
108	0089_PW329_250314		14/03/2025 08:57 AM	WATER	ALS: 2 Non ALS: 0	No					X		
109	0080_PW358_250314		14/03/2025 09:06 AM	WATER	ALS: 2 Non ALS: 0	No					X		
110	0089_PW330_250314		14/03/2025 09:52 AM	WATER	ALS: 2 Non ALS: 0	No					X		
111	0089_QC113_250314		14/03/2025 09:53 AM	WATER	ALS: 2 Non ALS: 0	No					X		
112	0089_PW357_250314		14/03/2025 09:58 AM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:

/ EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
113	0089_QC114_250314		14/03/2025 10:00 AM	SOIL	ALS: 1 Non ALS: 0	No				X			
114	0089_QC115_250314		14/03/2025 10:00 AM	WATER	ALS: 2 Non ALS: 0	No					X		

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
090	0089_QC301_250310	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
091	0089_QC401_250310	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
098	0089_QC402_250311	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
099	0089_QC302_250311	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
100	0089_QC303_250312	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
101	0089_QC403_250312	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW158_250312	HDPE (no PTFE)	20 mL	00352407149093	Grey	No	
001	0089_MW158_250312	HDPE (no PTFE)	20 mL	00352407145193	Grey	No	
002	0089_MW161_250312	HDPE (no PTFE)	20 mL	00352407144885	Grey	No	
002	0089_MW161_250312	HDPE (no PTFE)	20 mL	00352407145090	Grey	No	
003	0089_MW166_250312	HDPE (no PTFE)	20 mL	00352407144758	Grey	No	
003	0089_MW166_250312	HDPE (no PTFE)	20 mL	00352407145186	Grey	No	
004	0089_MW171_250312	HDPE (no PTFE)	20 mL	00352407145001	Grey	No	
004	0089_MW171_250312	HDPE (no PTFE)	20 mL	00352407144919	Grey	No	
005	0089_MW226_250310	HDPE (no PTFE)	20 mL	00352312060931	Grey	No	
005	0089_MW226_250310	HDPE (no PTFE)	20 mL	00352312060697	Grey	No	
006	0089_MW228_250310	HDPE (no PTFE)	20 mL	00350822044502	Grey	No	
006	0089_MW228_250310	HDPE (no PTFE)	20 mL	00350822044636	Grey	No	
007	0089_MW553_250311	HDPE (no PTFE)	20 mL	00352407144946	Grey	No	
007	0089_MW553_250311	HDPE (no PTFE)	20 mL	00352407144792	Grey	No	
008	0089_MW010_250311	HDPE (no PTFE)	20 mL	00352407144818	Grey	No	
008	0089_MW010_250311	HDPE (no PTFE)	20 mL	00352407144886	Grey	No	
009	0089_SD330_250314	HDPE Soil Jar	200 mL	00621223037311	Grey	No	
010	0089_SD329_250314	HDPE Soil Jar	200 mL	00621223037273	Grey	No	
011	0089_SD357_250314	HDPE Soil Jar	200 mL	00621222065677	Grey	No	
012	0089_SD358_260314	HDPE Soil Jar	200 mL	00621122024780	Grey	No	
013	0089_SD304_250313	HDPE Soil Jar	200 mL	00621223037302	Grey	No	
014	0089_SD345_250313	HDPE Soil Jar	200 mL	00621223037374	Grey	No	
015	0089_SD367_250313	HDPE Soil Jar	200 mL	00621223037364	Grey	No	
016	0089_SD368_250313	HDPE Soil Jar	200 mL	00621223037243	Grey	No	
017	0089_SD350_250312	HDPE Soil Jar	200 mL	00621223037322	Grey	No	
018	0089_SD369_250313	HDPE Soil Jar	200 mL	00621223037285	Grey	No	

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

O19	0089_SD351_250312	HDPE Soil Jar	200 mL	00621223037334	Grey	No	
O20	0089_SD352_250312	HDPE Soil Jar	200 mL	00620724013707	Grey	No	
O21	0089_SD380_250312	HDPE Soil Jar	200 mL	00621223037266	Grey	No	
O22	0089_SD381_250312	HDPE Soil Jar	200 mL	00621223037373	Grey	No	
O23	0089_SD401_250312	HDPE Soil Jar	200 mL	00621223037289	Grey	No	
O24	0089_SD306_250311	HDPE Soil Jar	200 mL	00621222010846	Grey	No	
O25	0089_SD307_250311	HDPE Soil Jar	200 mL	00621122024662	Grey	No	
O26	0089_SD314_250311	HDPE Soil Jar	200 mL	00620724013728	Grey	No	
O27	0089_SD308_250311	HDPE Soil Jar	200 mL	00621222010897	Grey	No	
O28	0089_SD315_250311	HDPE Soil Jar	200 mL	00621122024674	Grey	No	
O29	0089_SD316_250311	HDPE Soil Jar	200 mL	00621122024767	Grey	No	
O30	0089_SD405_250310	HDPE Soil Jar	200 mL	00621222010808	Grey	No	
O31	0089_SD407_250310	HDPE Soil Jar	200 mL	00621222010788	Grey	No	
O32	0089_SD409_250310	HDPE Soil Jar	200 mL	00621222010786	Grey	No	
O33	0089_SD411_250311	HDPE Soil Jar	200 mL	00621223037288	Grey	No	
O34	0089_SD413_250311	HDPE Soil Jar	200 mL	00621222010885	Grey	No	
O35	0089_SD374_250310	HDPE Soil Jar	200 mL	00621222010807	Grey	No	
O36	0089_SD415_250311	HDPE Soil Jar	200 mL	00621223037701	Grey	No	
O37	0089_SD375_250310	HDPE Soil Jar	200 mL	00621222010828	Grey	No	
O38	0089_SD378_250310_0.10	HDPE Soil Jar	200 mL	00621222010887	Grey	No	
O39	0089_SW152_250314	HDPE (no PTFE)	20 mL	00352407148995	Grey	No	
O39	0089_SW152_250314	HDPE (no PTFE)	20 mL	00352407148906	Grey	No	
O40	0089_SW154_250314	HDPE (no PTFE)	20 mL	00352407148624	Grey	No	
O40	0089_SW154_250314	HDPE (no PTFE)	20 mL	00352407149273	Grey	No	
O41	0089_SW156_250314	HDPE (no PTFE)	20 mL	00352407148788	Grey	No	
O41	0089_SW156_250314	HDPE (no PTFE)	20 mL	00352407149311	Grey	No	
O42	0089_SW305_250313	HDPE (no PTFE)	20 mL	00352407148883	Grey	No	

CHAIN OF CUSTODY

COC#: 80251 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

042	0089_SW305_250313	HDPE (no PTFE)	20 mL	00352407149313	Grey	No	
043	0089_SW370_250313	HDPE (no PTFE)	20 mL	00352407144939	Grey	No	
043	0089_SW370_250313	HDPE (no PTFE)	20 mL	00352407144808	Grey	No	
044	0089_SW371_250313	HDPE (no PTFE)	20 mL	00352407149245	Grey	No	
044	0089_SW371_250313	HDPE (no PTFE)	20 mL	00352407149185	Grey	No	
045	0089_SW372_250313	HDPE (no PTFE)	20 mL	00352407144954	Grey	No	
045	0089_SW372_250313	HDPE (no PTFE)	20 mL	00352407145246	Grey	No	
046	0089_SW373_250313	HDPE (no PTFE)	20 mL	00352407148928	Grey	No	
046	0089_SW373_250313	HDPE (no PTFE)	20 mL	00352407149085	Grey	No	
047	0089_SW353_250312	HDPE (no PTFE)	20 mL	00352407145063	Grey	No	
047	0089_SW353_250312	HDPE (no PTFE)	20 mL	00352407144877	Grey	No	
048	0089_SW382_250312	HDPE (no PTFE)	20 mL	00352407144934	Grey	No	
048	0089_SW382_250312	HDPE (no PTFE)	20 mL	00352407144959	Grey	No	
049	0089_SW383_250312	HDPE (no PTFE)	20 mL	00352407144866	Grey	No	
049	0089_SW383_250312	HDPE (no PTFE)	20 mL	00352407145133	Grey	No	
050	0089_SW384_250312	HDPE (no PTFE)	20 mL	00352407144795	Grey	No	
050	0089_SW384_250312	HDPE (no PTFE)	20 mL	00352407145052	Grey	No	
051	0089_SW309_250311	HDPE (no PTFE)	20 mL	00352312076028	Grey	No	
051	0089_SW309_250311	HDPE (no PTFE)	20 mL	00352312075715	Grey	No	
052	0089_SW310_250311	HDPE (no PTFE)	20 mL	00352312076112	Grey	No	
052	0089_SW310_250311	HDPE (no PTFE)	20 mL	00352312075988	Grey	No	
053	0089_SW311_250311	HDPE (no PTFE)	20 mL	00352312076371	Grey	No	
053	0089_SW311_250311	HDPE (no PTFE)	20 mL	00352312075814	Grey	No	
054	0089_SW406_250310	HDPE (no PTFE)	20 mL	00352312075748	Grey	No	
054	0089_SW406_250310	HDPE (no PTFE)	20 mL	00350822044782	Grey	No	
055	0089_SW408_250310	HDPE (no PTFE)	20 mL	00352312076331	Grey	No	
055	0089_SW408_250310	HDPE (no PTFE)	20 mL	00350822044670	Grey	No	

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

056	0089_SW410_250310	HDPE (no PTFE)	20 mL	00352312075825	Grey	No	
056	0089_SW410_250310	HDPE (no PTFE)	20 mL	00352312075985	Grey	No	
057	0089_SW412_250311	HDPE (no PTFE)	20 mL	00352407144909	Grey	No	
057	0089_SW412_250311	HDPE (no PTFE)	20 mL	00352407144783	Grey	No	
058	0089_SW414_250311	HDPE (no PTFE)	20 mL	00352407145269	Grey	No	
058	0089_SW414_250311	HDPE (no PTFE)	20 mL	00352407144797	Grey	No	
059	0089_SW416_250311	HDPE (no PTFE)	20 mL	00352407144760	Grey	No	
059	0089_SW416_250311	HDPE (no PTFE)	20 mL	00352407144835	Grey	No	
060	0089_SW317_250310	HDPE (no PTFE)	20 mL	00352312076332	Grey	No	
060	0089_SW317_250310	HDPE (no PTFE)	20 mL	00352312076401	Grey	No	
061	0089_SW318_250310	HDPE (no PTFE)	20 mL	00352312075910	Grey	No	
061	0089_SW318_250310	HDPE (no PTFE)	20 mL	00352312076415	Grey	No	
062	0089_SW319_250310	HDPE (no PTFE)	20 mL	00352312076521	Grey	No	
062	0089_SW319_250310	HDPE (no PTFE)	20 mL	00352312076473	Grey	No	
063	0089_PW304_250313	HDPE (no PTFE)	20 mL	00352407148870	Grey	No	
063	0089_PW304_250313	HDPE (no PTFE)	20 mL	00352407149226	Grey	No	
064	0089_PW345_250313	HDPE (no PTFE)	20 mL	00352407144805	Grey	No	
064	0089_PW345_250313	HDPE (no PTFE)	20 mL	00352407144779	Grey	No	
065	0089_PW367_250313	HDPE (no PTFE)	20 mL	00352407144986	Grey	No	
065	0089_PW367_250313	HDPE (no PTFE)	20 mL	00352407145010	Grey	No	
066	0089_PW368_250313	HDPE (no PTFE)	20 mL	00352407144970	Grey	No	
066	0089_PW368_250313	HDPE (no PTFE)	20 mL	00352407144941	Grey	No	
067	0089_PW369_250313	HDPE (no PTFE)	20 mL	00352407144843	Grey	No	
067	0089_PW369_250313	HDPE (no PTFE)	20 mL	00352407144849	Grey	No	
068	0089_PW351_250312	HDPE (no PTFE)	20 mL	00352407144829	Grey	No	
068	0089_PW351_250312	HDPE (no PTFE)	20 mL	00352407145256	Grey	No	
069	0089_PW350_250312	HDPE (no PTFE)	20 mL	00352407145260	Grey	No	

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

069	0089_PW350_250312	HDPE (no PTFE)	20 mL	00352407145281	Grey	No	
070	0089_PW352_250312	HDPE (no PTFE)	20 mL	00352407145289	Grey	No	
070	0089_PW352_250312	HDPE (no PTFE)	20 mL	00352407145211	Grey	No	
071	0089_PW380_250312	HDPE (no PTFE)	20 mL	00352407144759	Grey	No	
071	0089_PW380_250312	HDPE (no PTFE)	20 mL	00352407144785	Grey	No	
072	0089_PW381_250312	HDPE (no PTFE)	20 mL	00352407144775	Grey	No	
072	0089_PW381_250312	HDPE (no PTFE)	20 mL	00352407145222	Grey	No	
073	0089_PW401_250312	HDPE (no PTFE)	20 mL	00352407145110	Grey	No	
073	0089_PW401_250312	HDPE (no PTFE)	20 mL	00352407144762	Grey	No	
074	0089_PW346_250313	HDPE (no PTFE)	20 mL	00352407149108	Grey	No	
074	0089_PW346_250313	HDPE (no PTFE)	20 mL	00352407149069	Grey	No	
075	0089_PW306_250311	HDPE (no PTFE)	20 mL	00352312076413	Grey	No	
075	0089_PW306_250311	HDPE (no PTFE)	20 mL	00350822044535	Grey	No	
076	0089_PW307_250311	HDPE (no PTFE)	20 mL	00352312076405	Grey	No	
076	0089_PW307_250311	HDPE (no PTFE)	20 mL	00352312076079	Grey	No	
077	0089_PW308_250311	HDPE (no PTFE)	20 mL	00352312075741	Grey	No	
077	0089_PW308_250311	HDPE (no PTFE)	20 mL	00352312076522	Grey	No	
078	0089_PW314_250311	HDPE (no PTFE)	20 mL	00352312076294	Grey	No	
078	0089_PW314_250311	HDPE (no PTFE)	20 mL	00352312075871	Grey	No	
079	0089_PW315_250311	HDPE (no PTFE)	20 mL	00352312075810	Grey	No	
079	0089_PW315_250311	HDPE (no PTFE)	20 mL	00352312075827	Grey	No	
080	0089_PW316_250311	HDPE (no PTFE)	20 mL	00352407145169	Grey	No	
080	0089_PW316_250311	HDPE (no PTFE)	20 mL	0035240712506068	Grey	No	
081	0089_PW405_250310	HDPE (no PTFE)	20 mL	00350822044531	Grey	No	
081	0089_PW405_250310	HDPE (no PTFE)	20 mL	00352312076315	Grey	No	
082	0089_PW407_250310	HDPE (no PTFE)	20 mL	00352312075932	Grey	No	
082	0089_PW407_250310	HDPE (no PTFE)	20 mL	00352312076391	Grey	No	

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

083	0089_PW409_250310	HDPE (no PTFE)	20 mL	00352312076442	Grey	No	
083	0089_PW409_250310	HDPE (no PTFE)	20 mL	00350822044673	Grey	No	
084	0089_PW411_250311	HDPE (no PTFE)	20 mL	00352407145157	Grey	No	
084	0089_PW411_250311	HDPE (no PTFE)	20 mL	00352407145263	Grey	No	
085	0089_PW413_250311	HDPE (no PTFE)	20 mL	00352407144936	Grey	No	
085	0089_PW413_250311	HDPE (no PTFE)	20 mL	00352407144872	Grey	No	
086	0089_PW415_250311	HDPE (no PTFE)	20 mL	00352407145085	Grey	No	
086	0089_PW415_250311	HDPE (no PTFE)	20 mL	00352407145262	Grey	No	
087	0089_PW374_250310	HDPE (no PTFE)	20 mL	00352312076015	Grey	No	
087	0089_PW374_250310	HDPE (no PTFE)	20 mL	00352312075968	Grey	No	
088	0089_PW375_250310	HDPE (no PTFE)	20 mL	00352312060807	Grey	No	
088	0089_PW375_250310	HDPE (no PTFE)	20 mL	00352312060773	Grey	No	
089	0089_PW378_250310	HDPE (no PTFE)	20 mL	00352312076506	Grey	No	
089	0089_PW378_250310	HDPE (no PTFE)	20 mL	00352312076498	Grey	No	
090	0089_QC301_250310	HDPE (no PTFE)	20 mL	00350822044639	Grey	No	
090	0089_QC301_250310	HDPE (no PTFE)	20 mL	00350822044528	Grey	No	
091	0089_QC401_250310	HDPE (no PTFE)	20 mL	00352312076329	Grey	No	
091	0089_QC401_250310	HDPE (no PTFE)	20 mL	00352312076265	Grey	No	
092	0089_QC102_250310	HDPE (no PTFE)	20 mL	00350822044488	Grey	No	
092	0089_QC102_250310	HDPE (no PTFE)	20 mL	00352312076170	Grey	No	
093	0089_QC101_250310	HDPE (no PTFE)	20 mL	00352312075864	Grey	No	
093	0089_QC101_250310	HDPE (no PTFE)	20 mL	00352312076177	Grey	No	
094	0089_QC103_250310	HDPE (no PTFE)	20 mL	00352312076373	Grey	No	
094	0089_QC103_250310	HDPE (no PTFE)	20 mL	00352312076205	Grey	No	
095	0089_QC104_250311	HDPE (no PTFE)	20 mL	00352312076086	Grey	No	
095	0089_QC104_250311	HDPE (no PTFE)	20 mL	00352312076421	Grey	No	
096	0089_QC105_250311	HDPE Soil Jar	200 mL	00621122024717	Grey	No	

CHAIN OF CUSTODY

COC#: **80251** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:

DATE TIME:

DATE TIME

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: OMP week 1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH:

QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE: / EP2024GHDSE

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

097	0089_QC106_250311	HDPE Soil Jar	200 mL
098	0089_QC402_250311	HDPE (no PTFE)	20 mL
098	0089_QC402_250311	HDPE (no PTFE)	20 mL
099	0089_QC302_250311	HDPE (no PTFE)	20 mL
099	0089_QC302_250311	HDPE (no PTFE)	20 mL
100	0089_QC303_250312	HDPE (no PTFE)	20 mL
100	0089_QC303_250312	HDPE (no PTFE)	20 mL
101	0089_QC403_250312	HDPE (no PTFE)	20 mL
101	0089_QC403_250312	HDPE (no PTFE)	20 mL
102	0089_QC107_250312	HDPE (no PTFE)	20 mL
102	0089_QC107_250312	HDPE (no PTFE)	20 mL
103	0089_QC110_250312	HDPE (no PTFE)	20 mL
103	0089_QC110_250312	HDPE Soil Jar	200 mL
104	0089_QC109_250312	HDPE (no PTFE)	20 mL
105	0089_QC108_250312	HDPE (no PTFE)	20 mL
105	0089_QC108_250312	HDPE (no PTFE)	20 mL
106	0089_QC111_25313	HDPE (no PTFE)	20 mL
106	0089_QC111_25313	HDPE Soil Jar	200 mL
107	0089_QC112_250313	HDPE (no PTFE)	20 mL
108	0089_PW329_250314	HDPE (no PTFE)	20 mL
108	0089_PW329_250314	HDPE (no PTFE)	20 mL
109	0080_PW358_250314	HDPE (no PTFE)	20 mL
109	0080_PW358_250314	HDPE (no PTFE)	20 mL
110	0089_PW330_250314	HDPE (no PTFE)	20 mL
110	0089_PW330_250314	HDPE (no PTFE)	20 mL
111	0089_QC113_250314	HDPE (no PTFE)	20 mL
111	0089_QC113_250314	HDPE (no PTFE)	

Monday, March 17, 2025 7:36:33 AM

CERTIFICATE OF ANALYSIS

Work Order	: **EP2504355**	Page	: 1 of 23
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 24-Mar-2025 14:00
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 25-Mar-2025
C-O-C number	: 79798	Issue Date	: 22-Apr-2025 14:11
Sampler	: [redacted]		
Site	: 0089		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 55		
No. of samples analysed	: 50		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: High LCS recovery deemed acceptable as all associated analytes are <LOR.
- EP231X: LOR has been raised for particular analytes on certain samples due to matrix interference.
- Amendment (22/04/2025): This report has been amended as a result of a request to change sample identification numbers (IDs) received from Shenae Blakiston on 21/04/2025, for sample EP2504355-032. All analysis results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250321	0089_MW112_250321	0089_MW120_250321	0089_MW121_250321	0089_MW123_250321
				Sampling date / time	21-Mar-2025 09:10	21-Mar-2025 09:48	21-Mar-2025 08:50	21-Mar-2025 10:05	21-Mar-2025 08:12
Compound	CAS Number	LOR	Unit		EP2504355-001	EP2504355-002	EP2504355-004	EP2504355-005	EP2504355-006
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.03**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.06**	**0.12**	<0.02	**0.13**	**0.22**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.12**	**0.32**	**0.03**	**0.11**	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.64**	**4.04**	**1.96**	**1.32**	**1.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.43**	**1.20**	**0.14**	**0.03**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.06**	**31.2**	**1.72**	**8.34**	**0.05**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.20	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.20	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.39**	<0.02	**0.19**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.09**	**1.61**	**0.06**	**0.35**	**0.23**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.59**	<0.02	**0.13**	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.87**	**0.43**	**0.16**	**0.08**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.04**	<0.02	**0.02**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250321	0089_MW112_250321	0089_MW120_250321	0089_MW121_250321	0089_MW123_250321
				Sampling date / time	21-Mar-2025 09:10	21-Mar-2025 09:48	21-Mar-2025 08:50	21-Mar-2025 10:05	21-Mar-2025 08:12
Compound	CAS Number	LOR	Unit		EP2504355-001	EP2504355-002	EP2504355-004	EP2504355-005	EP2504355-006
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.58**	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.12**	<0.05	**0.06**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.97**	**40.5**	**5.40**	**11.0**	**1.96**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.70**	**35.2**	**3.68**	**9.66**	**1.09**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.85**	**39.1**	**4.17**	**10.7**	**1.72**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**110**	**93.7**	**116**	**98.3**	**117**
13C8-PFOA	---	0.02	%		**109**	**99.9**	**114**	**98.6**	**111**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_250321	0089_MW125_250319	0089_MW126_250321	0089_MW127_250321	0089_MW128_250321
				Sampling date / time	21-Mar-2025 11:18	19-Mar-2025 14:04	21-Mar-2025 11:52	21-Mar-2025 12:04	21-Mar-2025 10:37
Compound	CAS Number	LOR	Unit		EP2504355-007	EP2504355-008	EP2504355-009	EP2504355-010	EP2504355-011
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.02**	**0.10**	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.07**	**0.31**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.31**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**1.14**	<0.01	<0.01	**0.02**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**1.19**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.06**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.37**	<0.02	<0.02	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_250321	0089_MW125_250319	0089_MW126_250321	0089_MW127_250321	0089_MW128_250321
				Sampling date / time	21-Mar-2025 11:18	19-Mar-2025 14:04	21-Mar-2025 11:52	21-Mar-2025 12:04	21-Mar-2025 10:37
Compound	CAS Number	LOR	Unit		EP2504355-007	EP2504355-008	EP2504355-009	EP2504355-010	EP2504355-011
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.09**	**2.29**	<0.01	<0.01	**1.25**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**1.14**	<0.01	<0.01	**1.21**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.07**	**1.88**	<0.01	<0.01	**1.25**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**114**	**112**	**115**	**114**	**120**
13C8-PFOA	---	0.02	%		**113**	**114**	**110**	**116**	**114**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW173_250320	0089_MW193_250320	0089_MW199_250318	0089_MW200_250319	0089_MW202_250320
			Sampling date / time	20-Mar-2025 14:08	20-Mar-2025 13:08	18-Mar-2025 13:46	19-Mar-2025 11:28	20-Mar-2025 14:33
Compound	CAS Number	LOR	Unit	EP2504355-012	EP2504355-013	EP2504355-015	EP2504355-016	EP2504355-017
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	**0.03**	**0.07**	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.14**	**0.22**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.10**	**0.37**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**1.72**	**3.34**	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**0.28**	**0.20**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**2.98**	**1.08**	<0.01	<0.01	**0.03**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.08**	**0.11**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.35**	**0.55**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.04**	**0.10**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.17**	**0.27**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW173_250320	0089_MW193_250320	0089_MW199_250318	0089_MW200_250319	0089_MW202_250320
				Sampling date / time	20-Mar-2025 14:08	20-Mar-2025 13:08	18-Mar-2025 13:46	19-Mar-2025 11:28	20-Mar-2025 14:33
Compound	CAS Number	LOR	Unit		EP2504355-012	EP2504355-013	EP2504355-015	EP2504355-016	EP2504355-017
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**5.89**	**6.31**	<0.01	<0.01	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**4.70**	**4.42**	<0.01	<0.01	**0.03**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**5.48**	**5.67**	<0.01	<0.01	**0.03**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**99.0**	**115**	**116**	**114**	**122**
13C8-PFOA	---	0.02	%		**96.7**	**117**	**109**	**114**	**114**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW203_250318	0089_MW195D_250319	0089_MW468_250319	0089_MW288_250318	0089_MW289_250320
			Sampling date / time	18-Mar-2025 11:36	19-Mar-2025 10:17	19-Mar-2025 11:27	18-Mar-2025 14:32	20-Mar-2025 14:51
Compound	CAS Number	LOR	Unit	EP2504355-018	EP2504355-019	EP2504355-021	EP2504355-022	EP2504355-023
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.05**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.05**	<0.01	<0.01	<0.01	**0.24**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.01**	<0.01	<0.01	**0.12**	**0.96**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	**0.02**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_MW203_250318	0089_MW195D_250319	0089_MW468_250319	0089_MW288_250318	0089_MW289_250320
			Sampling date / time	18-Mar-2025 11:36	19-Mar-2025 10:17	19-Mar-2025 11:27	18-Mar-2025 14:32	20-Mar-2025 14:51
Compound	CAS Number	LOR	Unit	EP2504355-018	EP2504355-019	EP2504355-021	EP2504355-022	EP2504355-023
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	---	0.01	µg/L	**0.06**	<0.01	<0.01	**0.12**	**1.35**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.06**	<0.01	<0.01	**0.12**	**1.20**
Sum of PFAS (WA DER List)	---	0.01	µg/L	**0.06**	<0.01	<0.01	**0.12**	**1.31**
EP231S: PFAS Surrogate								
13C4-PFOS	---	0.02	%	**104**	**118**	**102**	**113**	**102**
13C8-PFOA	---	0.02	%	**101**	**112**	**97.8**	**120**	**102**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250320	0089_MW215_250320	0089_MW216_250320	0089_MW217_250320	0089_MW220_250320
				Sampling date / time	20-Mar-2025 10:04	20-Mar-2025 09:42	20-Mar-2025 09:10	20-Mar-2025 10:41	20-Mar-2025 11:06
Compound	CAS Number	LOR	Unit		EP2504355-024	EP2504355-025	EP2504355-026	EP2504355-027	EP2504355-028
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	**0.02**	**0.04**	<0.02	**0.05**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.14**	**0.11**	<0.02	**0.17**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.22**	**0.09**	<0.02	**0.09**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**1.22**	**1.09**	**0.02**	**0.98**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.05**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.02**	**0.10**	**0.04**	**9.07**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.04
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**3.1**	**1.3**	**0.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.10**	**10.7**	**6.68**	**0.32**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.38**	**9.28**	**5.45**	**0.32**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.09**	**1.58**	**1.29**	**0.11**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	**0.08**	**0.39**	**0.08**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250320	0089_MW215_250320	0089_MW216_250320	0089_MW217_250320	0089_MW220_250320
				Sampling date / time	20-Mar-2025 10:04	20-Mar-2025 09:42	20-Mar-2025 09:10	20-Mar-2025 10:41	20-Mar-2025 11:06
Compound	CAS Number	LOR	Unit		EP2504355-024	EP2504355-025	EP2504355-026	EP2504355-027	EP2504355-028
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	0.06	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	1.34	19.3	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	0.12	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	2.21	27.5	34.6	11.5
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	1.24	1.19	0.06	10.0
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	1.97	27.4	34.6	11.2
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		123	103	102	101	102
13C8-PFOA	---	0.02	%		117	109	98.4	98.2	103

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW224_250320	0089_MW227_250320	0089_MW539_250320	0089_MW233_250318	0089_MW236_250318
				Sampling date / time	20-Mar-2025 11:49	20-Mar-2025 15:32	20-Mar-2025 11:50	18-Mar-2025 11:02	18-Mar-2025 08:11
Compound	CAS Number	LOR	Unit		EP2504355-029	EP2504355-031	EP2504355-032	EP2504355-033	EP2504355-034
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	**0.02**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.17**	<0.02	**0.12**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.28**	<0.02	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	**0.84**	**0.02**	**11.4**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	**0.28**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**1.30**	**0.11**	**40.1**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.20
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.10**	<0.02	**0.10**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.49**	<0.02	**0.51**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.12**	<0.02	**0.20**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.10**	<0.01	**2.26**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**1.35**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW224_250320	0089_MW227_250320	0089_MW539_250320	0089_MW233_250318	0089_MW236_250318
				Sampling date / time	20-Mar-2025 11:49	20-Mar-2025 15:32	20-Mar-2025 11:50	18-Mar-2025 11:02	18-Mar-2025 08:11
Compound	CAS Number	LOR	Unit		EP2504355-029	EP2504355-031	EP2504355-032	EP2504355-033	EP2504355-034
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	**3.46**	**0.13**	**56.5**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	**2.14**	**0.13**	**51.5**
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	**3.12**	**0.13**	**54.7**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**119**	**116**	**108**	**100**	**104**
13C8-PFOA	---	0.02	%		**121**	**114**	**110**	**106**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW255_250318	0089_MW256_250318	0089_MW257_250318	0089_MW258_250318	0089_MW259_250318
				Sampling date / time	18-Mar-2025 10:37	18-Mar-2025 09:37	18-Mar-2025 10:24	18-Mar-2025 10:09	18-Mar-2025 09:49
Compound	CAS Number	LOR	Unit		EP2504355-036	EP2504355-037	EP2504355-038	EP2504355-039	EP2504355-040
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.14**	**0.55**	<0.02	**0.38**	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.42**	**1.77**	<0.02	**1.13**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.46**	**1.76**	**0.02**	**0.99**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**7.87**	**7.91**	**1.18**	**4.07**	**0.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.22**	**0.12**	**0.31**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.50**	**9.13**	**0.41**	**8.07**	**0.07**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	**0.13**	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.1**	**0.5**	**0.1**	**0.5**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.21**	**0.84**	**0.42**	**1.25**	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.87**	**3.60**	**0.25**	**2.17**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.13**	**0.32**	**0.03**	**0.33**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.05**	**0.34**	**0.13**	**0.27**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW255_250318	0089_MW256_250318	0089_MW257_250318	0089_MW258_250318	0089_MW259_250318
				Sampling date / time	18-Mar-2025 10:37	18-Mar-2025 09:37	18-Mar-2025 10:24	18-Mar-2025 10:09	18-Mar-2025 09:49
Compound	CAS Number	LOR	Unit		EP2504355-036	EP2504355-037	EP2504355-038	EP2504355-039	EP2504355-040
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.05**	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.23**	<0.05	**0.17**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**10.8**	**27.4**	**2.66**	**19.6**	**0.14**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**8.37**	**17.0**	**1.59**	**12.1**	**0.11**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**10.2**	**24.6**	**2.52**	**18.0**	**0.14**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**104**	**97.8**	**109**	**100**	**119**
13C8-PFOA	---	0.02	%		**110**	**101**	**106**	**100**	**115**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC307_250318	0089_QC407_250318	0089_QC308_250319	0089_QC408_250319	0089_QC309_250320
				Sampling date / time	19-Mar-2025 15:23	19-Mar-2025 15:22	19-Mar-2025 15:22	19-Mar-2025 15:22	20-Mar-2025 15:42
Compound	CAS Number	LOR	Unit		EP2504355-057	EP2504355-058	EP2504355-059	EP2504355-060	EP2504355-065
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC307_250318	0089_QC407_250318	0089_QC308_250319	0089_QC408_250319	0089_QC309_250320
				Sampling date / time	19-Mar-2025 15:23	19-Mar-2025 15:22	19-Mar-2025 15:22	19-Mar-2025 15:22	20-Mar-2025 15:42
Compound	CAS Number	LOR	Unit		EP2504355-057	EP2504355-058	EP2504355-059	EP2504355-060	EP2504355-065
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**113**	**118**	**115**	**117**	**118**
13C8-PFOA	---	0.02	%		**125**	**115**	**120**	**112**	**116**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0089_QC409_250320	0089_QC116_250321	0089_QC117_250321	0089_QC118_250321	0089_MW500_250321
			Sampling date / time	20-Mar-2025 15:43	21-Mar-2025 08:13	21-Mar-2025 08:50	21-Mar-2025 09:11	21-Mar-2025 09:30
Compound	CAS Number	LOR	Unit	EP2504355-066	EP2504355-067	EP2504355-068	EP2504355-069	EP2504355-070
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	**0.03**	<0.02	<0.02	**0.21**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.22**	<0.02	**0.07**	**0.67**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.21**	**0.03**	**0.12**	**0.47**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	**1.07**	**1.98**	**0.62**	**12.1**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	**0.04**	**1.23**	<0.02	**2.76**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	**0.06**	**1.71**	**0.06**	**53.0**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.20
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	**0.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	**0.07**	<0.02	<0.02	**0.35**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**0.22**	**0.06**	**0.09**	**2.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	**0.05**	<0.02	<0.02	**0.20**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	**0.06**	**0.52**	<0.01	**0.90**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC409_250320	0089_QC116_250321	0089_QC117_250321	0089_QC118_250321	0089_MW500_250321
				Sampling date / time	20-Mar-2025 15:43	21-Mar-2025 08:13	21-Mar-2025 08:50	21-Mar-2025 09:11	21-Mar-2025 09:30
Compound	CAS Number	LOR	Unit		EP2504355-066	EP2504355-067	EP2504355-068	EP2504355-069	EP2504355-070
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		<0.01	2.03	5.53	0.96	72.9
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	1.13	3.69	0.68	65.1
Sum of PFAS (WA DER List)	---	0.01	µg/L		<0.01	1.75	4.27	0.84	69.5
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		120	107	118	120	76.5
13C8-PFOA	---	0.02	%		117	113	118	122	100

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC119_250321	0089_QC120_250321	0089_QC121_250321	0089_QC310_250321	0089_QC410_250321
				Sampling date / time	21-Mar-2025 11:19	21-Mar-2025 11:53	21-Mar-2025 12:05	21-Mar-2025 12:22	21-Mar-2025 12:23
Compound	CAS Number	LOR	Unit		EP2504355-071	EP2504355-072	EP2504355-073	EP2504355-074	EP2504355-075
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.07**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC119_250321	0089_QC120_250321	0089_QC121_250321	0089_QC310_250321	0089_QC410_250321
				Sampling date / time	21-Mar-2025 11:19	21-Mar-2025 11:53	21-Mar-2025 12:05	21-Mar-2025 12:22	21-Mar-2025 12:23
Compound	CAS Number	LOR	Unit		EP2504355-071	EP2504355-072	EP2504355-073	EP2504355-074	EP2504355-075
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.09**	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.07**	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**113**	**102**	**100**	**122**	**135**
13C8-PFOA	---	0.02	%		**114**	**98.2**	**100**	**117**	**127**

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	---	65	140
13C8-PFOA	---	71	133

QUALITY CONTROL REPORT

Work Order	: **EP2504355**	Page	: 1 of 8
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 24-Mar-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 25-Mar-2025
C-O-C number	: 79798	Issue Date	: 22-Apr-2025
Sampler	: [redacted]		
Site	: 0089		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 55		
No. of samples analysed	: 50		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

- **No Laboratory Duplicate (DUP) Results are required to be reported.**

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6463658)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	95.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	92.0	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	90.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	99.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	95.9	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	108	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	98.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6463660)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	93.3	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	91.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	83.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	93.7	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	91.2	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	102	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6463664)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	107	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	101	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	118	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	119	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	104	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	98.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6463938)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	96.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	94.8	71.0	127

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6463938) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	86.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	97.5	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	96.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	98.1	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	97.5	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6463658)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	90.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	93.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	115	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	98.6	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6463660)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	89.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	93.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	87.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	112	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	83.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	116	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	91.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	105	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6463664)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	103	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6463664) - continued								
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	110	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6463938)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	102	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	90.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	131	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	83.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	# 162	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	129	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	113	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6463658)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	102	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.4	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	96.8	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	109	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	99.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6463660)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	77.1	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.9	60.5	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6463660) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.7	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	97.2	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	96.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	92.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6463664)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	103	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	81.9	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	94.7	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.2	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	118	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	113	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	108	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6463938)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	88.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.3	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	108	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	108	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6463658)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	94.3	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	103	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	106	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	107	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6463660)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6463660) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	95.2	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	94.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	100	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	88.0	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6463664)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	114	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	119	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	116	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	122	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6463938)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	102	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	99.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	114	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	84.8	64.2	133
EP231P: PFAS Sums (QCLot: 6463658)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6463660)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6463664)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---
EP231P: PFAS Sums (QCLot: 6463938)								
EP231X: Sum of PFAS	---	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	---	---	---	---
EP231X: Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	---	---	---	---

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2504355**	Page	: 1 of 9
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 24-Mar-2025
Site	: 0089	Issue Date	: 22-Apr-2025
Sampler	: [redacted]	No. of samples received	: 55
Order number	: 12641234/02.2.6	No. of samples analysed	: 50

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP231B: Perfluoroalkyl Carboxylic Acids	QC-6463938-002	---	**Perfluorodecanoic acid (PFDA)**	335-76-2	162 %	71.0-129%	**Recovery greater than upper control limit**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	59	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	59	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*		*Sample Date*	*Extraction / Preparation*			*Analysis*		
			Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0089_MW199_250318,	0089_MW203_250318,	**18-Mar-2025**	**26-Mar-2025**	14-Sep-2025	✓	**26-Mar-2025**	14-Sep-2025	✓
0089_MW288_250318,	0089_MW233_250318,							
0089_MW236_250318,	0089_MW255_250318,							
0089_MW256_250318,	0089_MW257_250318,							
0089_MW258_250318,	0089_MW259_250318							
HDPE (no PTFE) (EP231X)								
0089_MW125_250319,	0089_MW200_250319,	**19-Mar-2025**	**26-Mar-2025**	15-Sep-2025	✓	**26-Mar-2025**	15-Sep-2025	✓
0089_MW195D_250319,	0089_MW468_250319,							
0089_QC307_250318,	0089_QC407_250318,							
0089_QC308_250319,	0089_QC408_250319							
HDPE (no PTFE) (EP231X)								

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued								
0089_MW173_250320,	0089_MW193_250320,	**20-Mar-2025**	**26-Mar-2025**	16-Sep-2025	✓	**26-Mar-2025**	16-Sep-2025	✓
0089_MW202_250320,	0089_MW289_250320,							
0089_MW214_250320,	0089_MW215_250320,							
0089_MW216_250320,	0089_MW217_250320,							
0089_MW220_250320,	0089_MW224_250320,							
0089_MW227_250320,	0089_MW539_250320,							
0089_QC309_250320,	0089_QC409_250320							
HDPE (no PTFE) (EP231X)								
0089_MW109_250321,	0089_MW112_250321,	**21-Mar-2025**	**26-Mar-2025**	17-Sep-2025	✓	**26-Mar-2025**	17-Sep-2025	✓
0089_MW120_250321,	0089_MW121_250321,							
0089_MW123_250321,	0089_MW124_250321,							
0089_MW126_250321,	0089_MW127_250321,							
0089_MW128_250321,	0089_QC116_250321,							
0089_QC117_250321,	0089_QC118_250321,							
0089_MW500_250321,	0089_QC119_250321,							
0089_QC120_250321,	0089_QC121_250321,							
0089_QC310_250321,	0089_QC410_250321							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0089_MW199_250318,	0089_MW203_250318,	**18-Mar-2025**	**26-Mar-2025**	14-Sep-2025	✓	**26-Mar-2025**	14-Sep-2025	✓
0089_MW288_250318,	0089_MW233_250318,							
0089_MW236_250318,	0089_MW255_250318,							
0089_MW256_250318,	0089_MW257_250318,							
0089_MW258_250318,	0089_MW259_250318							
HDPE (no PTFE) (EP231X)								
0089_MW125_250319,	0089_MW200_250319,	**19-Mar-2025**	**26-Mar-2025**	15-Sep-2025	✓	**26-Mar-2025**	15-Sep-2025	✓
0089_MW195D_250319,	0089_MW468_250319,							
0089_QC307_250318,	0089_QC407_250318,							
0089_QC308_250319,	0089_QC408_250319							
HDPE (no PTFE) (EP231X)								
0089_MW173_250320,	0089_MW193_250320,	**20-Mar-2025**	**26-Mar-2025**	16-Sep-2025	✓	**26-Mar-2025**	16-Sep-2025	✓
0089_MW202_250320,	0089_MW289_250320,							
0089_MW214_250320,	0089_MW215_250320,							
0089_MW216_250320,	0089_MW217_250320,							
0089_MW220_250320,	0089_MW224_250320,							
0089_MW227_250320,	0089_MW539_250320,							
0089_QC309_250320,	0089_QC409_250320							
HDPE (no PTFE) (EP231X)								
0089_MW109_250321,	0089_MW112_250321,	**21-Mar-2025**	**26-Mar-2025**	17-Sep-2025	✓	**26-Mar-2025**	17-Sep-2025	✓
0089_MW120_250321,	0089_MW121_250321,							
0089_MW123_250321,	0089_MW124_250321,							
0089_MW126_250321,	0089_MW127_250321,							
0089_MW128_250321,	0089_QC116_250321,							
0089_QC117_250321,	0089_QC118_250321,							
0089_MW500_250321,	0089_QC119_250321,							
0089_QC120_250321,	0089_QC121_250321,							
0089_QC310_250321,	0089_QC410_250321							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0089_MW199_250318, 0089_MW203_250318, 0089_MW288_250318, 0089_MW233_250318, 0089_MW236_250318, 0089_MW255_250318, 0089_MW256_250318, 0089_MW257_250318, 0089_MW258_250318, 0089_MW259_250318	**18-Mar-2025**	**26-Mar-2025**	14-Sep-2025	✓	**26-Mar-2025**	14-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW125_250319, 0089_MW200_250319, 0089_MW195D_250319, 0089_MW468_250319, 0089_QC307_250318, 0089_QC407_250318, 0089_QC308_250319, 0089_QC408_250319	**19-Mar-2025**	**26-Mar-2025**	15-Sep-2025	✓	**26-Mar-2025**	15-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW173_250320, 0089_MW193_250320, 0089_MW202_250320, 0089_MW289_250320, 0089_MW214_250320, 0089_MW215_250320, 0089_MW216_250320, 0089_MW217_250320, 0089_MW220_250320, 0089_MW224_250320, 0089_MW227_250320, 0089_MW539_250320, 0089_QC309_250320, 0089_QC409_250320	**20-Mar-2025**	**26-Mar-2025**	16-Sep-2025	✓	**26-Mar-2025**	16-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW109_250321, 0089_MW112_250321, 0089_MW120_250321, 0089_MW121_250321, 0089_MW123_250321, 0089_MW124_250321, 0089_MW126_250321, 0089_MW127_250321, 0089_MW128_250321, 0089_QC116_250321, 0089_QC117_250321, 0089_QC118_250321, 0089_MW500_250321, 0089_QC119_250321, 0089_QC120_250321, 0089_QC121_250321, 0089_QC310_250321, 0089_QC410_250321	**21-Mar-2025**	**26-Mar-2025**	17-Sep-2025	✓	**26-Mar-2025**	17-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_MW199_250318, 0089_MW203_250318, 0089_MW288_250318, 0089_MW233_250318, 0089_MW236_250318, 0089_MW255_250318, 0089_MW256_250318, 0089_MW257_250318, 0089_MW258_250318, 0089_MW259_250318	**18-Mar-2025**	**26-Mar-2025**	14-Sep-2025	✓	**26-Mar-2025**	14-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW125_250319, 0089_MW200_250319, 0089_MW195D_250319, 0089_MW468_250319, 0089_QC307_250318, 0089_QC407_250318, 0089_QC308_250319, 0089_QC408_250319	**19-Mar-2025**	**26-Mar-2025**	15-Sep-2025	✓	**26-Mar-2025**	15-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW173_250320, 0089_MW193_250320, 0089_MW202_250320, 0089_MW289_250320, 0089_MW214_250320, 0089_MW215_250320, 0089_MW216_250320, 0089_MW217_250320, 0089_MW220_250320, 0089_MW224_250320, 0089_MW227_250320, 0089_MW539_250320, 0089_QC309_250320, 0089_QC409_250320	**20-Mar-2025**	**26-Mar-2025**	16-Sep-2025	✓	**26-Mar-2025**	16-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW109_250321, 0089_MW112_250321, 0089_MW120_250321, 0089_MW121_250321, 0089_MW123_250321, 0089_MW124_250321, 0089_MW126_250321, 0089_MW127_250321, 0089_MW128_250321, 0089_QC116_250321, 0089_QC117_250321, 0089_QC118_250321, 0089_MW500_250321, 0089_QC119_250321, 0089_QC120_250321, 0089_QC121_250321, 0089_QC310_250321, 0089_QC410_250321	**21-Mar-2025**	**26-Mar-2025**	17-Sep-2025	✓	**26-Mar-2025**	17-Sep-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0089_MW199_250318, 0089_MW203_250318, 0089_MW288_250318, 0089_MW233_250318, 0089_MW236_250318, 0089_MW255_250318, 0089_MW256_250318, 0089_MW257_250318, 0089_MW258_250318, 0089_MW259_250318	**18-Mar-2025**	**26-Mar-2025**	14-Sep-2025	✓	**26-Mar-2025**	14-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW125_250319, 0089_MW200_250319, 0089_MW195D_250319, 0089_MW468_250319, 0089_QC307_250318, 0089_QC407_250318, 0089_QC308_250319, 0089_QC408_250319	**19-Mar-2025**	**26-Mar-2025**	15-Sep-2025	✓	**26-Mar-2025**	15-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW173_250320, 0089_MW193_250320, 0089_MW202_250320, 0089_MW289_250320, 0089_MW214_250320, 0089_MW215_250320, 0089_MW216_250320, 0089_MW217_250320, 0089_MW220_250320, 0089_MW224_250320, 0089_MW227_250320, 0089_MW539_250320, 0089_QC309_250320, 0089_QC409_250320	**20-Mar-2025**	**26-Mar-2025**	16-Sep-2025	✓	**26-Mar-2025**	16-Sep-2025	✓
HDPE (no PTFE) (EP231X)							
0089_MW109_250321, 0089_MW112_250321, 0089_MW120_250321, 0089_MW121_250321, 0089_MW123_250321, 0089_MW124_250321, 0089_MW126_250321, 0089_MW127_250321, 0089_MW128_250321, 0089_QC116_250321, 0089_QC117_250321, 0089_QC118_250321, 0089_MW500_250321, 0089_QC119_250321, 0089_QC120_250321, 0089_QC121_250321, 0089_QC310_250321, 0089_QC410_250321	**21-Mar-2025**	**26-Mar-2025**	17-Sep-2025	✓	**26-Mar-2025**	17-Sep-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: ✗ = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	59	**0.00**	**10.00**	✗	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	59	**6.78**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	59	**6.78**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	59	**0.00**	**5.00**	✗	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Data quality objectives for internal standard recoveries are based on US EPA method 1633.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **EP2504355**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 4
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 79798	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0089		
Sampler	: [redacted]		

Dates

Date Samples Received	: 24-Mar-2025 14:00	Issue Date	: 25-Mar-2025
Client Requested Due Date	: 31-Mar-2025	Scheduled Reporting Date	: **31-Mar-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 8.0 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 55 / 50

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2504355-001	21-Mar-2025 09:10	0089_MW109_250321		✓
EP2504355-002	21-Mar-2025 09:48	0089_MW112_250321		✓
EP2504355-004	21-Mar-2025 08:50	0089_MW120_250321		✓
EP2504355-005	21-Mar-2025 10:05	0089_MW121_250321		✓
EP2504355-006	21-Mar-2025 08:12	0089_MW123_250321		✓
EP2504355-007	21-Mar-2025 11:18	0089_MW124_250321		✓
EP2504355-008	19-Mar-2025 14:04	0089_MW125_250319		✓
EP2504355-009	21-Mar-2025 11:52	0089_MW126_250321		✓
EP2504355-010	21-Mar-2025 12:04	0089_MW127_250321		✓
EP2504355-011	21-Mar-2025 10:37	0089_MW128_250321		✓
EP2504355-012	20-Mar-2025 14:08	0089_MW173_250320		✓
EP2504355-013	20-Mar-2025 13:08	0089_MW193_250320		✓
EP2504355-015	18-Mar-2025 13:46	0089_MW199_250318		✓
EP2504355-016	19-Mar-2025 11:28	0089_MW200_250319		✓
EP2504355-017	20-Mar-2025 14:33	0089_MW202_250320		✓
EP2504355-018	18-Mar-2025 11:36	0089_MW203_250318		✓
EP2504355-019	19-Mar-2025 10:17	0089_MW195D_250319		✓
EP2504355-020	20-Mar-2025 14:09	0089_MW195S_250320	✓	
EP2504355-021	19-Mar-2025 11:27	0089_MW468_250319		✓
EP2504355-022	18-Mar-2025 14:32	0089_MW288_250318		✓
EP2504355-023	20-Mar-2025 14:51	0089_MW289_250320		✓
EP2504355-024	20-Mar-2025 10:04	0089_MW214_250320		✓
EP2504355-025	20-Mar-2025 09:42	0089_MW215_250320		✓
EP2504355-026	20-Mar-2025 09:10	0089_MW216_250320		✓
EP2504355-027	20-Mar-2025 10:41	0089_MW217_250320		✓
EP2504355-028	20-Mar-2025 11:06	0089_MW220_250320		✓
EP2504355-029	20-Mar-2025 11:49	0089_MW224_250320		✓
EP2504355-031	20-Mar-2025 15:32	0089_MW227_250320		✓
EP2504355-032	20-Mar-2025 11:50	0089_MW282_250320		✓
EP2504355-033	18-Mar-2025 11:02	0089_MW233_250318		✓
EP2504355-034	18-Mar-2025 08:11	0089_MW236_250318		✓
EP2504355-036	18-Mar-2025 10:37	0089_MW255_250318		✓
EP2504355-037	18-Mar-2025 09:37	0089_MW256_250318		✓
EP2504355-038	18-Mar-2025 10:24	0089_MW257_250318		✓
EP2504355-039	18-Mar-2025 10:09	0089_MW258_250318		✓

			(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2504355-040	18-Mar-2025 09:49	0089_MW259_250318		✓
EP2504355-057	19-Mar-2025 15:23	0089_QC307_250318		✓
EP2504355-058	19-Mar-2025 15:22	0089_QC407_250318		✓
EP2504355-059	19-Mar-2025 15:22	0089_QC308_250319		✓
EP2504355-060	19-Mar-2025 15:22	0089_QC408_250319		✓
EP2504355-061	20-Mar-2025 09:27	0089_QC117_250320 *	✓	
EP2504355-062	20-Mar-2025 09:28	0089_QC217_250320*	✓	
EP2504355-063	20-Mar-2025 15:37	0089_QC118_250320*	✓	
EP2504355-064	20-Mar-2025 15:37	0089_QC218_250320	✓	
EP2504355-065	20-Mar-2025 15:42	0089_QC309_250320		✓
EP2504355-066	20-Mar-2025 15:43	0089_QC409_250320		✓
EP2504355-067	21-Mar-2025 08:13	0089_QC116_250321		✓
EP2504355-068	21-Mar-2025 08:50	0089_QC117_250321		✓
EP2504355-069	21-Mar-2025 09:11	0089_QC118_250321		✓
EP2504355-070	21-Mar-2025 09:30	0089_MW500_250321		✓
EP2504355-071	21-Mar-2025 11:19	0089_QC119_250321		✓
EP2504355-072	21-Mar-2025 11:53	0089_QC120_250321		✓
EP2504355-073	21-Mar-2025 12:05	0089_QC121_250321		✓
EP2504355-074	21-Mar-2025 12:22	0089_QC310_250321		✓
EP2504355-075	21-Mar-2025 12:23	0089_QC410_250321		✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

GHD LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

Shenae Blakiston

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

TOM PHILLIPS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

CHAIN OF CUSTODY

COC#: 79798 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 24/3	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

Environmental Division Perth

Work Order Reference EP2504355

Telephone – 61-8-9406 1301

SAMPLE DETAILS							ANALYSIS REQUIRED						
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW109_250321		21/03/2025 09:10 AM	WATER	ALS: 2 Non ALS: 0	No			X			
002	0089_MW112_250321		21/03/2025 09:48 AM	WATER	ALS: 2 Non ALS: 0	No			X			
003	0089_MW117_			WATER	ALS: 0 Non ALS: 0	No	-					
004	0089_MW120_250321		21/03/2025 08:50 AM	WATER	ALS: 2 Non ALS: 0	No			X			
005	0089_MW121_250321		21/03/2025 10:05 AM	WATER	ALS: 2 Non ALS: 0	No			X			
006	0089_MW123_250321		21/03/2025 08:12 AM	WATER	ALS: 2 Non ALS: 0	No			X			
007	0089_MW124_250321		21/03/2025 11:18 AM	WATER	ALS: 2 Non ALS: 0	No			X			

CHAIN OF CUSTODY

COC#: 79798 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_MW125_250319		19/03/2025 02:04 PM	WATER	ALS: 2 Non ALS: 0	No			X			
009	0089_MW126_250321		21/03/2025 11:52 AM	WATER	ALS: 2 Non ALS: 0	No			X			
010	0089_MW127_250321		21/03/2025 12:04 PM	WATER	ALS: 2 Non ALS: 0	No			X			
011	0089_MW128_250321		21/03/2025 10:37 AM	WATER	ALS: 2 Non ALS: 0	No			X			
012	0089_MW173_250320		20/03/2025 02:08 PM	WATER	ALS: 2 Non ALS: 0	No			X			
013	0089_MW193_250320		20/03/2025 01:08 PM	WATER	ALS: 2 Non ALS: 0	No			X			
014	0089_MW196_			WATER	ALS: 0 Non ALS: 0	No	-					

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_MW199_250318		18/03/2025 01:46 PM	WATER	ALS: 2 Non ALS: 0	No			X			
016	0089_MW200_250319		19/03/2025 11:28 AM	WATER	ALS: 2 Non ALS: 0	No			X			
017	0089_MW202_250320		20/03/2025 02:33 PM	WATER	ALS: 2 Non ALS: 0	No			X			
018	0089_MW203_250318		18/03/2025 11:36 AM	WATER	ALS: 2 Non ALS: 0	No			X			
019	0089_MW195D_250319		19/03/2025 10:17 AM	WATER	ALS: 2 Non ALS: 0	No			X			
020	0089_MW195S_250320		20/03/2025 02:09 PM	WATER	ALS: 2 Non ALS: 0	No			X			
021	0089_MW468_250319		19/03/2025 11:27 AM	WATER	ALS: 2 Non ALS: 0	No			X			

CHAIN OF CUSTODY

COC#: **79798** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_MW288_250318		18/03/2025 02:32 PM	WATER	ALS: 2 Non ALS: 0	No			X			
023	0089_MW289_250320		20/03/2025 02:51 PM	WATER	ALS: 2 Non ALS: 0	No			X			
024	0089_MW214_250320		20/03/2025 10:04 AM	WATER	ALS: 2 Non ALS: 0	No			X			
025	0089_MW215_250320		20/03/2025 09:42 AM	WATER	ALS: 2 Non ALS: 0	No			X			
026	0089_MW216_250320		20/03/2025 09:10 AM	WATER	ALS: 2 Non ALS: 0	No			X			
027	0089_MW217_250320		20/03/2025 10:41 AM	WATER	ALS: 2 Non ALS: 0	No			X			
028	0089_MW220_250320		20/03/2025 11:06 AM	WATER	ALS: 2 Non ALS: 0	No			X			

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_MW224_250320		20/03/2025 11:49 AM	WATER	ALS: 2 Non ALS: 0	No			X			
030	0089_MW225_			WATER	ALS: 0 Non ALS: 0	No	-					
031	0089_MW227_250320		20/03/2025 03:32 PM	WATER	ALS: 2 Non ALS: 0	No			X			
032	0089_MW282_250320		20/03/2025 11:50 AM	WATER	ALS: 2 Non ALS: 0	No			X			
033	0089_MW233_250318		18/03/2025 11:02 AM	WATER	ALS: 2 Non ALS: 0	No			X			
034	0089_MW236_250318		18/03/2025 08:11 AM	WATER	ALS: 2 Non ALS: 0	No			X			
035	0089_MW239_			WATER	ALS: 0 Non ALS: 0	No	-					

CHAIN OF CUSTODY

COC#: **79798** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	0089_MW255_250318		18/03/2025 10:37 AM	WATER	ALS: 2 Non ALS: 0	No			X			
037	0089_MW256_250318		18/03/2025 09:37 AM	WATER	ALS: 2 Non ALS: 0	No			X			
038	0089_MW257_250318		18/03/2025 10:24 AM	WATER	ALS: 2 Non ALS: 0	No			X			
039	0089_MW258_250318		18/03/2025 10:09 AM	WATER	ALS: 2 Non ALS: 0	No			X			
040	0089_MW259_250318		18/03/2025 09:49 AM	WATER	ALS: 2 Non ALS: 0	No			X			
041	0089_PW129_			WATER	ALS: 0 Non ALS: 0	No	-					
042	0089_PW130_			WATER	ALS: 0 Non ALS: 0	No	-					

CHAIN OF CUSTODY

COC#: **79798** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0089_PW131_			WATER	ALS: 0 Non ALS: 0	No	-					
044	0089_PW132_			WATER	ALS: 0 Non ALS: 0	No	-					
045	0089_PW133_			WATER	ALS: 0 Non ALS: 0	No	-					
046	0089_PW134_			WATER	ALS: 0 Non ALS: 0	No	-					
047	0089_PW135_			WATER	ALS: 0 Non ALS: 0	No	-					
048	0089_PW136_			WATER	ALS: 0 Non ALS: 0	No	-					
049	0089_PW150_			WATER	ALS: 0 Non ALS: 0	No	-					

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard Info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0089_PW151_			WATER	ALS: 0 Non ALS: 0	No	-					
051	0089_PW152_			WATER	ALS: 0 Non ALS: 0	No	-					
052	0089_PW153_			WATER	ALS: 0 Non ALS: 0	No	-					
053	0089_PW154_			WATER	ALS: 0 Non ALS: 0	No	-					
054	0089_PW155_			WATER	ALS: 0 Non ALS: 0	No	-					
055	0089_PW156_			WATER	ALS: 0 Non ALS: 0	No	-					
056	0089_PW157_			WATER	ALS: 0 Non ALS: 0	No	-					

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
057	0089_QC307_250318		19/03/2025 03:23 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3		
058	0089_QC407_250318		19/03/2025 03:22 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3				
059	0089_QC308_250319		19/03/2025 03:22 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3		
060	0089_QC408_250319		19/03/2025 03:22 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3				
061	0089_QC117_250320 *		20/03/2025 09:27 AM	WATER	ALS: 2 Non ALS: 0	Yes	-					
062	0089_QC217_250320*		20/03/2025 09:28 AM	WATER	ALS: 2 Non ALS: 0	Yes	-					
063	0089_QC118_250320*		20/03/2025 03:37 PM	WATER	ALS: 2 Non ALS: 0	Yes	-					

CHAIN OF CUSTODY

COC#: 79798 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0089_QC218_250320*		20/03/2025 03:37 PM	WATER	ALS: 2 Non ALS: 0	Yes	-					
065	0089_QC309_250320		20/03/2025 03:42 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3		
066	0089_QC409_250320		20/03/2025 03:43 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3				
067	0089_QC116_250321		21/03/2025 08:13 AM	WATER	ALS: 2 Non ALS: 0	No			X			
068	0089_QC117_250321		21/03/2025 08:50 AM	WATER	ALS: 2 Non ALS: 0	No			X			
069	0089_QC118_250321		21/03/2025 09:11 AM	WATER	ALS: 2 Non ALS: 0	No			X			
070	0089_MW500_250321		21/03/2025 09:30 AM	WATER	ALS: 2 Non ALS: 0	No			X			

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED					
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
071	0089_QC119_250321		21/03/2025 11:19 AM	WATER	ALS: 2 Non ALS: 0	No			X			
072	0089_QC120_250321		21/03/2025 11:53 AM	WATER	ALS: 2 Non ALS: 0	No			X			
073	0089_QC121_250321		21/03/2025 12:05 PM	WATER	ALS: 2 Non ALS: 0	No			X			
074	0089_QC310_250321		21/03/2025 12:22 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3		
075	0089_QC410_250321		21/03/2025 12:23 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3				

CHAIN OF CUSTODY

COC#: **79798** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	

Other comments:

SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
057	0089_QC307_250318	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
058	0089_QC407_250318	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
059	0089_QC308_250319	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
060	0089_QC408_250319	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
065	0089_QC309_250320	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
066	0089_QC409_250320	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
074	0089_QC310_250321	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
075	0089_QC410_250321	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: 79798 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO [redacted]

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW109_250321	HDPE (no PTFE)	20 mL	00352407149446	Grey	No	
001	0089_MW109_250321	HDPE (no PTFE)	20 mL	00352407148779	Grey	No	
002	0089_MW112_250321	HDPE (no PTFE)	20 mL	00352407149266	Grey	No	
002	0089_MW112_250321	HDPE (no PTFE)	20 mL	00352407149434	Grey	No	
004	0089_MW120_250321	HDPE (no PTFE)	20 mL	00352407148915	Grey	No	
004	0089_MW120_250321	HDPE (no PTFE)	20 mL	00352407149303	Grey	No	
005	0089_MW121_250321	HDPE (no PTFE)	20 mL	00352407149285	Grey	No	
005	0089_MW121_250321	HDPE (no PTFE)	125 mL	00352407149004	Grey	No	
006	0089_MW123_250321	HDPE (no PTFE)	20 mL	00352407149354	Grey	No	
006	0089_MW123_250321	HDPE (no PTFE)	20 mL	00352407149295	Grey	No	
007	0089_MW124_250321	HDPE (no PTFE)	20 mL	00352407148707	Grey	No	
007	0089_MW124_250321	HDPE (no PTFE)	20 mL	00352407148853	Grey	No	
008	0089_MW125_250319	HDPE (no PTFE)	20 mL	00352407149100	Grey	No	
008	0089_MW125_250319	HDPE (no PTFE)	20 mL	00352407149156	Grey	No	
009	0089_MW126_250321	HDPE (no PTFE)	20 mL	00352407149048	Grey	No	
009	0089_MW126_250321	HDPE (no PTFE)	20 mL	00352407149298	Grey	No	
010	0089_MW127_250321	HDPE (no PTFE)	20 mL	00352407148622	Grey	No	
010	0089_MW127_250321	HDPE (no PTFE)	20 mL	00352407149006	Grey	No	
011	0089_MW128_250321	HDPE (no PTFE)	20 mL	00352407149132	Grey	No	
011	0089_MW128_250321	HDPE (no PTFE)	20 mL	00352407149386	Grey	No	
012	0089_MW173_250320	HDPE (no PTFE)	20 mL	00352407149281	Grey	No	
012	0089_MW173_250320	HDPE (no PTFE)	20 mL	00352407149137	Grey	No	
013	0089_MW193_250320	HDPE (no PTFE)	20 mL	00352407149034	Grey	No	
013	0089_MW193_250320	HDPE (no PTFE)	20 mL	00352407149035	Grey	No	
015	0089_MW199_250318	HDPE (no PTFE)	20 mL	00352407149417	Grey	No	
015	0089_MW199_250318	HDPE (no PTFE)	20 mL	00352407149088	Grey	No	

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free Ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

016	0089_MW200_250319	HDPE (no PTFE)	20 mL	00352407149065	Grey	No	
016	0089_MW200_250319	HDPE (no PTFE)	20 mL	00352407149447	Grey	No	
017	0089_MW202_250320	HDPE (no PTFE)	20 mL	00352407149169	Grey	No	
017	0089_MW202_250320	HDPE (no PTFE)	20 mL	00352407148874	Grey	No	
018	0089_MW203_250318	HDPE (no PTFE)	20 mL	00352407148636	Grey	No	
018	0089_MW203_250318	HDPE (no PTFE)	125 mL	00352407149375	Grey	No	
019	0089_MW195D_250319	HDPE (no PTFE)	20 mL	00352407145019	Grey	No	
019	0089_MW195D_250319	HDPE (no PTFE)	20 mL	00352407144875	Grey	No	
020	0089_MW195S_250320	HDPE (no PTFE)	20 mL	00352407144874	Grey	No	
020	0089_MW195S_250320	HDPE (no PTFE)	20 mL	00352407144942	Grey	No	
021	0089_MW468_250319	HDPE (no PTFE)	20 mL	00352407149249	Grey	No	
021	0089_MW468_250319	HDPE (no PTFE)	20 mL	00352407149197	Grey	No	
022	0089_MW288_250318	HDPE (no PTFE)	20 mL	00352407148626	Grey	No	
022	0089_MW288_250318	HDPE (no PTFE)	20 mL	00352407148715	Grey	No	
023	0089_MW289_250320	HDPE (no PTFE)	20 mL	00352407148773	Grey	No	
023	0089_MW289_250320	HDPE (no PTFE)	20 mL	00352407149039	Grey	No	
024	0089_MW214_250320	HDPE (no PTFE)	20 mL	00352407148651	Grey	No	
024	0089_MW214_250320	HDPE (no PTFE)	125 mL	00352407149094	Grey	No	
025	0089_MW215_250320	HDPE (no PTFE)	20 mL	00352407148957	Grey	No	
025	0089_MW215_250320	HDPE (no PTFE)	20 mL	00352407149019	Grey	No	
026	0089_MW216_250320	HDPE (no PTFE)	20 mL	00352407148913	Grey	No	
026	0089_MW216_250320	HDPE (no PTFE)	20 mL	00352407149186	Grey	No	
027	0089_MW217_250320	HDPE (no PTFE)	20 mL	00352407149233	Grey	No	
027	0089_MW217_250320	HDPE (no PTFE)	20 mL	00352407148836	Grey	No	
028	0089_MW220_250320	HDPE (no PTFE)	20 mL	00352407149217	Grey	No	
028	0089_MW220_250320	HDPE (no PTFE)	20 mL	00352407149091	Grey	No	
029	0089_MW224_250320	HDPE (no PTFE)	20 mL	00352407149278	Grey	No	

CHAIN OF CUSTODY

COC#: 79798 ALS Laboratory: EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

029	0089_MW224_250320	HDPE (no PTFE)	20 mL	00352407149198	Grey	No	
031	0089_MW227_250320	HDPE (no PTFE)	20 mL	00352407149248	Grey	No	
031	0089_MW227_250320	HDPE (no PTFE)	20 mL	00352407149389	Grey	No	
032	0089_MW282_250320	HDPE (no PTFE)	20 mL	00352407149165	Grey	No	
032	0089_MW282_250320	HDPE (no PTFE)	20 mL	00352407149215	Grey	No	
033	0089_MW233_250318	HDPE (no PTFE)	20 mL	00352407149164	Grey	No	
033	0089_MW233_250318	HDPE (no PTFE)	20 mL	00352407149341	Grey	No	
034	0089_MW236_250318	HDPE (no PTFE)	20 mL	00352407149240	Grey	No	
034	0089_MW236_250318	HDPE (no PTFE)	20 mL	00352407148728	Grey	No	
036	0089_MW255_250318	HDPE (no PTFE)	20 mL	00352407149229	Grey	No	
036	0089_MW255_250318	HDPE (no PTFE)	20 mL	00352407148891	Grey	No	
037	0089_MW256_250318	HDPE (no PTFE)	20 mL	00352407149221	Grey	No	
037	0089_MW256_250318	HDPE (no PTFE)	20 mL	00352407149427	Grey	No	
038	0089_MW257_250318	HDPE (no PTFE)	20 mL	00352407149394	Grey	No	
038	0089_MW257_250318	HDPE (no PTFE)	20 mL	00352407148810	Grey	No	
039	0089_MW258_250318	HDPE (no PTFE)	20 mL	00352407149347	Grey	No	
039	0089_MW258_250318	HDPE (no PTFE)	20 mL	00352407149296	Grey	No	
040	0089_MW259_250318	HDPE (no PTFE)	20 mL	00352407148985	Grey	No	
040	0089_MW259_250318	HDPE (no PTFE)	20 mL	00352407149204	Grey	No	
057	0089_QC307_250318	HDPE (no PTFE)	125 mL	00352407148992	Grey	No	
057	0089_QC307_250318	HDPE (no PTFE)	20 mL	00352407149451	Grey	No	
058	0089_QC407_250318	HDPE (no PTFE)	20 mL	00352407145243	Grey	No	
058	0089_QC407_250318	HDPE (no PTFE)	20 mL	00352407144776	Grey	No	
059	0089_QC308_250319	HDPE (no PTFE)	20 mL	00352407144811	Grey	No	
059	0089_QC308_250319	HDPE (no PTFE)	20 mL	00352407145124	Grey	No	
060	0089_QC408_250319	HDPE (no PTFE)	20 mL	00352407149163	Grey	No	
060	0089_QC408_250319	HDPE (no PTFE)	20 mL	00352407149101	Grey	No	

CHAIN OF CUSTODY

COC#: **79798** *ALS Laboratory:* EP Perth Environmental

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

061	0089_QC117_250320 *	HDPE (no PTFE)	20 mL	00352407144870	Grey	No	
061	0089_QC117_250320 *	HDPE (no PTFE)	20 mL	00352407144837	Grey	No	
062	0089_QC217_250320*	HDPE (no PTFE)	20 mL	00352407149411	Grey	No	
062	0089_QC217_250320*	HDPE (no PTFE)	20 mL	00352407149445	Grey	No	
063	0089_QC118_250320*	HDPE (no PTFE)	20 mL	00352407144820	Grey	No	
063	0089_QC118_250320*	HDPE (no PTFE)	20 mL	00352407145118	Grey	No	
064	0089_QC218_250320*	HDPE (no PTFE)	20 mL	00352407149436	Grey	No	
064	0089_QC218_250320*	HDPE (no PTFE)	20 mL	00352407149420	Grey	No	
065	0089_QC309_250320	HDPE (no PTFE)	20 mL	00352407149271	Grey	No	
065	0089_QC309_250320	HDPE (no PTFE)	20 mL	00352407149291	Grey	No	
066	0089_QC409_250320	HDPE (no PTFE)	20 mL	00352407144952	Grey	No	
066	0089_QC409_250320	HDPE (no PTFE)	20 mL	00352407144871	Grey	No	
067	0089_QC116_250321	HDPE (no PTFE)	20 mL	00352407148826	Grey	No	
067	0089_QC116_250321	HDPE (no PTFE)	20 mL	00352407148895	Grey	No	
068	0089_QC117_250321	HDPE (no PTFE)	20 mL	00352407148975	Grey	No	
068	0089_QC117_250321	HDPE (no PTFE)	20 mL	00352407149372	Grey	No	
069	0089_QC118_250321	HDPE (no PTFE)	20 mL	00352407148688	Grey	No	
069	0089_QC118_250321	HDPE (no PTFE)	20 mL	00352407148859	Grey	No	
070	0089_MW500_250321	HDPE (no PTFE)	20 mL	00352407149058	Grey	No	
070	0089_MW500_250321	HDPE (no PTFE)	20 mL	00352407149074	Grey	No	
071	0089_QC119_250321	HDPE (no PTFE)	20 mL	00352407149143	Grey	No	
071	0089_QC119_250321	HDPE (no PTFE)	20 mL	00352407148694	Grey	No	
072	0089_QC120_250321	HDPE (no PTFE)	20 mL	00352407149124	Grey	No	
072	0089_QC120_250321	HDPE (no PTFE)	20 mL	00352407149196	Grey	No	
073	0089_QC121_250321	HDPE (no PTFE)	20 mL	00352407148615	Grey	No	
073	0089_QC121_250321	HDPE (no PTFE)	20 mL	00352407148648	Grey	No	
074	0089_QC310_250321	HDPE (no PTFE)	20 mL	00352407148847	Grey	No	

CHAIN OF CUSTODY

COC#: 79798 *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

074	0089_QC310_250321	HDPE (no PTFE)	20 mL	00352407149086	Grey	No	
075	0089_QC410_250321	HDPE (no PTFE)	20 mL	00352407148900	Grey	No	
075	0089_QC410_250321	HDPE (no PTFE)	20 mL	00352407148585	Grey	No	

Total Bottle Count: ALS: 110, Non ALS: 0

CERTIFICATE OF ANALYSIS

Work Order	: **EP2504356**	Page	: 1 of 7
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 24-Mar-2025 14:00
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 27-Mar-2025
C-O-C number	: 80323	Issue Date	: 28-Mar-2025 09:26
Sampler	: [redacted]		
Site	: Stirling - post summer - 2nd week		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 12		
No. of samples analysed	: 10		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
John Horwood	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per tables in USEPA 1633 where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW268_250317	0089_MW269_250317	0089_MW238_250317	0089_MW240_250317	0089_MW242_250317
				Sampling date / time	17-Mar-2025 14:10	17-Mar-2025 14:00	17-Mar-2025 10:27	17-Mar-2025 10:07	17-Mar-2025 12:28
Compound	CAS Number	LOR	Unit		EP2504356-001	EP2504356-002	EP2504356-003	EP2504356-004	EP2504356-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.08**	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.22**	**0.05**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.23**	**0.07**	<0.02	**0.27**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.72**	**0.75**	**0.03**	**4.48**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.25**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.45**	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.05**	**0.02**	<0.02	**0.02**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.22**	**0.07**	<0.02	**0.19**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.05**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.01**	<0.01	**0.17**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW268_250317	0089_MW269_250317	0089_MW238_250317	0089_MW240_250317	0089_MW242_250317
				Sampling date / time	17-Mar-2025 14:10	17-Mar-2025 14:00	17-Mar-2025 10:27	17-Mar-2025 10:07	17-Mar-2025 12:28
Compound	CAS Number	LOR	Unit		EP2504356-001	EP2504356-002	EP2504356-003	EP2504356-004	EP2504356-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**1.52**	**1.42**	**0.03**	**5.43**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.72**	**1.20**	**0.03**	**4.48**	<0.01
Sum of PFAS (WA DER List)	---	0.01	µg/L		**1.21**	**1.35**	**0.03**	**4.91**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**98.3**	**99.7**	**110**	**96.6**	**102**
13C8-PFOA	---	0.02	%		**106**	**104**	**104**	**103**	**109**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW243_250317	0089_MW245_250317	0089_MW249_250317	0089_MW496_250317	0089_MW516_250317
				Sampling date / time	17-Mar-2025 09:50	17-Mar-2025 11:18	17-Mar-2025 12:29	17-Mar-2025 13:14	17-Mar-2025 12:56
Compound	CAS Number	LOR	Unit		EP2504356-006	EP2504356-007	EP2504356-008	EP2504356-009	EP2504356-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.05**	**0.03**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.06**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	<0.01	**0.13**	**0.85**	**0.24**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.08**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.02**	**0.02**	**7.02**	**2.31**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.02**	**0.12**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.08**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW243_250317	0089_MW245_250317	0089_MW249_250317	0089_MW496_250317	0089_MW516_250317
				Sampling date / time	17-Mar-2025 09:50	17-Mar-2025 11:18	17-Mar-2025 12:29	17-Mar-2025 13:14	17-Mar-2025 12:56
Compound	CAS Number	LOR	Unit		EP2504356-006	EP2504356-007	EP2504356-008	EP2504356-009	EP2504356-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	---	0.01	µg/L		**0.05**	**0.02**	**0.17**	**8.28**	**2.58**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**0.02**	**0.15**	**7.87**	**2.55**
Sum of PFAS (WA DER List)	---	0.01	µg/L		**0.05**	**0.02**	**0.17**	**8.14**	**2.58**
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%		**102**	**96.6**	**106**	**98.6**	**96.6**
13C8-PFOA	---	0.02	%		**106**	**107**	**105**	**108**	**106**

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	---	65	140
13C8-PFOA	---	71	133

QUALITY CONTROL REPORT

Work Order	: **EP2504356**	Page	: 1 of 7
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 24-Mar-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 27-Mar-2025
C-O-C number	: 80323	Issue Date	: 28-Mar-2025
Sampler	: [redacted]		
Site	: Stirling - post summer - 2nd week		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 12		
No. of samples analysed	: 10		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6469511)									
EP2504508-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6469511)									
EP2504508-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6469511)									
EP2504508-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6469511) - continued									
EP2504508-001	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6469511)									
EP2504508-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6469511)									
EP2504508-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6469507)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	101	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	97.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	88.5	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	98.1	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	99.6	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	102	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6469511)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	87.5	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	91.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	85.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	97.5	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	101	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	89.0	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	86.9	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6469507)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	101	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	97.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	96.8	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	98.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	97.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	102	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6469511)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6469511) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	82.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	85.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	84.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	90.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	83.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	81.6	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	87.0	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6469507)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	90.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.5	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	97.9	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	110	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6469511)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	83.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	82.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.4	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.2	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	84.8	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	83.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6469507)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS Recovery (%)	Acceptable Limits (%): Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6469507) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	92.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	109	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	84.2	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6469511)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	90.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	94.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	90.0	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	91.9	64.2	133
EP231P: PFAS Sums (QCLot: 6469507)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6469511)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%): Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6469511)							
EP2504508-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	76.0	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	80.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	74.2	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	86.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	89.6	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	81.9	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	77.4	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6469511)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6469511) - continued							
EP2504508-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	73.1	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	82.9	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	75.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	75.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	75.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	77.4	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	78.6	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	77.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	85.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	85.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	74.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6469511)							
EP2504508-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	73.0	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	83.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	86.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	77.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	79.9	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	81.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	76.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6469511)							
EP2504508-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	78.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	79.3	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	83.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	82.2	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2504356**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 24-Mar-2025
Site	: Stirling - post summer - 2nd week	Issue Date	: 28-Mar-2025
Sampler	: [redacted]	No. of samples received	: 12
Order number	: 12641234/02.2.6	No. of samples analysed	: 10

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	7.69	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*		*Sample Date*	*Extraction / Preparation*			*Analysis*		
			Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0089_MW268_250317,	0089_MW269_250317,	**17-Mar-2025**	**27-Mar-2025**	13-Sep-2025	✓	**27-Mar-2025**	13-Sep-2025	✓
0089_MW238_250317,	0089_MW240_250317,							
0089_MW242_250317,	0089_MW243_250317,							
0089_MW245_250317,	0089_MW249_250317,							
0089_MW496_250317,	0089_MW516_250317							
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0089_MW268_250317,	0089_MW269_250317,	**17-Mar-2025**	**27-Mar-2025**	13-Sep-2025	✓	**27-Mar-2025**	13-Sep-2025	✓
0089_MW238_250317,	0089_MW240_250317,							
0089_MW242_250317,	0089_MW243_250317,							
0089_MW245_250317,	0089_MW249_250317,							
0089_MW496_250317,	0089_MW516_250317							
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0089_MW268_250317,	0089_MW269_250317,	**17-Mar-2025**	**27-Mar-2025**	13-Sep-2025	✓	**27-Mar-2025**	13-Sep-2025	✓
0089_MW238_250317,	0089_MW240_250317,							
0089_MW242_250317,	0089_MW243_250317,							
0089_MW245_250317,	0089_MW249_250317,							
0089_MW496_250317,	0089_MW516_250317							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_MW268_250317, 0089_MW269_250317, 0089_MW238_250317, 0089_MW240_250317, 0089_MW242_250317, 0089_MW243_250317, 0089_MW245_250317, 0089_MW249_250317, 0089_MW496_250317, 0089_MW516_250317	**17-Mar-2025**	**27-Mar-2025**	13-Sep-2025	✓	**27-Mar-2025**	13-Sep-2025	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0089_MW268_250317, 0089_MW269_250317, 0089_MW238_250317, 0089_MW240_250317, 0089_MW242_250317, 0089_MW243_250317, 0089_MW245_250317, 0089_MW249_250317, 0089_MW496_250317, 0089_MW516_250317	**17-Mar-2025**	**27-Mar-2025**	13-Sep-2025	✓	**27-Mar-2025**	13-Sep-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	13	**15.38**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	13	**15.38**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **EP2504356**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 3
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 80323	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Stirling - post summer - 2nd week		
Sampler	: [redacted]		

Dates

Date Samples Received	: 24-Mar-2025 14:00	Issue Date	: 26-Mar-2025
Client Requested Due Date	: 31-Mar-2025	Scheduled Reporting Date	: **31-Mar-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 8.0 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 12 / 10

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) WATER No analysis requested	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2504356-001	17-Mar-2025 14:10	0089_MW268_250317		✓
EP2504356-002	17-Mar-2025 14:00	0089_MW269_250317		✓
EP2504356-003	17-Mar-2025 10:27	0089_MW238_250317		✓
EP2504356-004	17-Mar-2025 10:07	0089_MW240_250317		✓
EP2504356-005	17-Mar-2025 12:28	0089_MW242_250317		✓
EP2504356-006	17-Mar-2025 09:50	0089_MW243_250317		✓
EP2504356-007	17-Mar-2025 11:18	0089_MW245_250317		✓
EP2504356-008	17-Mar-2025 12:29	0089_MW249_250317		✓
EP2504356 009	17 Mar 2025 13 14	0089 MW496 250317		✓
EP2504356-010	17-Mar-2025 12:56	0089_MW516_250317		✓
EP2504356-011	17-Mar-2025 14:55	0089_QC116_250317*	✓	
EP2504356-012	17-Mar-2025 14:55	0089_QC216_250317*	✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	[redacted]

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

GHD LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]
- Chain of Custody (CoC) (COC)	Email	[redacted]
- EDI Format - ESDAT (ESDAT)	Email	[redacted]
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]

CHAIN OF CUSTODY

COC#: **80323** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: [redacted] 2/3	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 2nd week

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH:
QUOTE NO: EP24GHDSER0016

SAMPLER MOBILE:
/ EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Groundwater - PFAS GROUNDWATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW268_250317		17/03/2025 02:10 PM	WATER	ALS: 2 Non ALS: 0	No		X		
002	0089_MW269_250317		17/03/2025 02:00 PM	WATER	ALS: 2 Non ALS: 0	No		X		
003	0089_MW238_250317		17/03/2025 10:27 AM	WATER	ALS: 2 Non ALS: 0	No		X		
004	0089_MW240_250317		17/03/2025 10:07 AM	WATER	ALS: 2 Non ALS: 0	No		X		
005	0089_MW242_250317		17/03/2025 12:28 PM	WATER	ALS: 2 Non ALS: 0	No		X		
006	0089_MW243_250317		17/03/2025 09:50 AM	WATER	ALS: 2 Non ALS: 0	No		X		
007	0089_MW245_250317		17/03/2025 11:18 AM	WATER	ALS: 2 Non ALS: 0	No		X		

Environmental Division
Perth
Work Order Reference
EP2504356

Telephone -- 61-8-9406 1301

CHAIN OF CUSTODY

COC#: **80323** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 2nd week

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Groundwater - PFAS GROUNDWATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_MW249_250317		17/03/2025 12:29 PM	WATER	ALS: 2 Non ALS: 0	No		X		
009	0089_MW496_250317		17/03/2025 01:14 PM	WATER	ALS: 2 Non ALS: 0	No		X		
010	0089_MW516_250317		17/03/2025 12:56 PM	WATER	ALS: 2 Non ALS: 0	No		X		
011	0089_QC116_250317*		17/03/2025 02:55 PM	WATER	ALS: 2 Non ALS: 0	Yes	-			
012	0089_QC216_250317*		17/03/2025 02:55 PM	WATER	ALS: 2 Non ALS: 0	Yes	-			

CHAIN OF CUSTODY

COC#: **80323** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: Stirling - post summer - 2nd week

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]

EMAIL INVOICES TO: [redacted]

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW268_250317	HDPE (no PTFE)	20 mL	00352407144867	Grey	No	
001	0089_MW268_250317	HDPE (no PTFE)	20 mL	00352407144780	Grey	No	
002	0089_MW269_250317	HDPE (no PTFE)	20 mL	00352407148953	Grey	No	
002	0089_MW269_250317	HDPE (no PTFE)	20 mL	00352407148823	Grey	No	
003	0089_MW238_250317	HDPE (no PTFE)	20 mL	00352407149139	Grey	No	
003	0089_MW238_250317	HDPE (no PTFE)	20 mL	00352407148678	Grey	No	
004	0089_MW240_250317	HDPE (no PTFE)	20 mL	00352407144965	Grey	No	
004	0089_MW240_250317	HDPE (no PTFE)	20 mL	00352407145147	Grey	No	
005	0089_MW242_250317	HDPE (no PTFE)	20 mL	00352407149308	Grey	No	
005	0089_MW242_250317	HDPE (no PTFE)	20 mL	00352407148734	Grey	No	
006	0089_MW243_250317	HDPE (no PTFE)	20 mL	00352407145097	Grey	No	
006	0089_MW243_250317	HDPE (no PTFE)	20 mL	00352407145126	Grey	No	
007	0089_MW245_250317	HDPE (no PTFE)	20 mL	00352407144961	Grey	No	
007	0089_MW245_250317	HDPE (no PTFE)	20 mL	00352407144994	Grey	No	
008	0089_MW249_250317	HDPE (no PTFE)	20 mL	00352407144947	Grey	No	
008	0089_MW249_250317	HDPE (no PTFE)	20 mL	00352407144764	Grey	No	
009	0089_MW496_250317	HDPE (no PTFE)	20 mL	00352407145125	Grey	No	
009	0089_MW496_250317	HDPE (no PTFE)	20 mL	00352407144813	Grey	No	
010	0089_MW516_250317	HDPE (no PTFE)	20 mL	00352407149336	Grey	No	
010	0089_MW516_250317	HDPE (no PTFE)	125 mL	00352407149043	Grey	No	
011	0089_QC116_250317*	HDPE (no PTFE)	20 mL	00352407144893	Grey	No	
011	0089_QC116_250317*	HDPE (no PTFE)	20 mL	00352407144996	Grey	No	
012	0089_QC216_250317*	HDPE (no PTFE)	20 mL	00352407145294	Grey	No	
012	0089_QC216_250317*	HDPE (no PTFE)	20 mL	00352407144863	Grey	No	

Total Bottle Count: ALS: 24, Non ALS: 0

Appendix F

Field notes

Purging and Sampling Record

Well ID: MW010

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.882 m bTOC	**Time SWL Measured:**	02:45 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.465 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	N/A to N/A m bgl			
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
2:45		25.9	7.49	957.0	1.10	-99.5	622.0		clear, colourless, no pdour, no sheen, some black sediment on outside of HS

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes | Duplicate collected? No | Duplicate 1 ID:

#Primary sample containers 2 | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW112

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.385 m bTOC	**Time SWL Measured:**	09:39 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.870 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:39		26.2	7.44	541.0	0.85	-103.1	352.9		Moderately cloudy, pale brown, no roots, brown-orange staining on top of HS
									faint hydrocarbon odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW120

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.051 m bTOC	**Time SWL Measured:**	08:51 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.699 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.59 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
8:51		22.4	7.24	1031.0	2.31	76.0	670.0		Cloudy pale vrown, sulfidic ofour, medium sediment load, no sheen,
									roots on top of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC117_250321

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC217_250321

Purging and Sampling Record

Well ID: MW121

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.231 m bTOC	**Time SWL Measured:**	10:23 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.980 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.7 to 5.7 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:23		26.7	7.75	541.0	4.72	31.4	3522.0		Moderately cloudy, pale brown, no roots, brown-orange staining on top of HS,
									faint hydrocarbon odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW123

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	6.208 m bTOC	**Time SWL Measured:**	08:22 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.740 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 8 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.64 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
8:22		23.5	7.30	2092.0	1.76	72.2	1362.0		Cloudy pale yellow, no sheen, no roots, medium sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC116_250321

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC216_250321

Purging and Sampling Record

Well ID: MW124

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.590 m bTOC	**Time SWL Measured:**	01:13 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.195 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 4 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.59 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:13		24.8	7.18	42058.0	0.92	-193.3	27332.0		Clear, colourless, strong sulfidic odour, no roots or sheen

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?

#Primary sample containers

Duplicate collected? Yes

Duplicate analysis:

Duplicate 1 ID: 0089_QC119_250321

Duplicate 2 ID: 0089_QC219_250321

Purging and Sampling Record

Well ID: MW125

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.570 m bTOC	**Time SWL Measured:**	01:16 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.410 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl			
Date:	19/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.59 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:16		28.3	7.12	44826.0	0.84	-218.6	29131.0		Clear, colourless, strong sulfidic odour, no sheen, low sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? | Duplicate collected? No | Duplicate 1 ID:

#Primary sample containers | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW126

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.655	m bTOC	**Time SWL Measured:**	11:58 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.260	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.7 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9	to 3.9 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.43	m
Round:	Post Summer 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:58		24.7	7.02	39199.0	0.41	-280.1	25481.0		Clear, colourless, sulfidic odour, no sheen or roots

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC120_250321

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC220_250321

Purging and Sampling Record

Well ID: MW127

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.484	m bTOC	**Time SWL Measured:**	12:41 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.205	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.7 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9	to 3.9 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.54	m
Round:	Post Summer 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:41		25.2	7.07	40183.0	0.95	-279.4	26126.0		Clear, pale yellow, sulfidic odour, no sheen or roots

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?

#Primary sample containers

Duplicate collected? Yes

Duplicate analysis:

Duplicate 1 ID: 0089_QC121-250321

Duplicate 2 ID: 0089_QC121_250321

Purging and Sampling Record

Well ID: MW128

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.190 m bTOC	**Time SWL Measured:**	10:30 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.850 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.47 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:30		24.0	7.28	584.0	1.33	-93.7	379.5		Pale grey, moderately cloudy, medium sediment load, slightly sulfidic odour,
									no sheen, roots on top of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW139

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.970 m bTOC	**Time SWL Measured:**	11:11 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.785 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2 to 5 m bgl			
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:11		27.3	7.48	8364.0	1.09	-20.3	5448.0		Clear, pale yellow, no odour, no turbidity, moderate sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW141

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.671 m bTOC	**Time SWL Measured:**	11:01 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.160 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2 to 5 m bgl			
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.29 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:57		25.8	7.08	29000.0	1.01	-116.4	18847.0		Clear, colourless, very slight sulphidic odour, no turbidity, moderate sediment
									load, organic material within hs

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW142

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.207 m bTOC	**Time SWL Measured:**	10:40 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.750 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A' m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.25 to 4 m bgl			
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.37 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:05		27.2	7.24	28522.0	1.41	-7.5	18559.0		Clear, pale yellow, no odour, no turbidity, low sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW147

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.041 m bTOC	**Time SWL Measured:**	10:49 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.505 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2 to 5 m bgl			
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:49		25.2	7.13	23431.0	0.60	-198.0	15226.0		Very pale yellow, clear, strong sulphidic odour, no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW149

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.914 m bTOC	**Time SWL Measured:**	10:30 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.380 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	1 to 4 m bgl			
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.35 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:19		30.5	7.39	27746.0	1.80	33.9	18035.0		Clear, pale yellow, no odour, no turbidity, low sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW158

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	14.105 m bTOC	**Time SWL Measured:**	02:00 PM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	15.720 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	15 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.48 m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:00		24.3	7.22	13969.0	1.11	82.4	9081.0		pale grey, nobodour, moderate turbidity, low sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC110_250312
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC210_250312

Purging and Sampling Record

Well ID: MW161

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	16.660 m bTOC	**Time SWL Measured:**	01:47 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	18.345 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	17.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl			
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.66 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:46		22.4	7.48	3252.0	2.95	80.4	2115.0		pale grey, moderate organic odour, roots on HS, low to moderate turbidity, low
									sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers 2
Duplicate collected? No
Duplicate analysis:
Duplicate 1 ID:
Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW166

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	11.198 m bTOC	**Time SWL Measured:**	01:28 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.320 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	11.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	10 to 13 m bgl			
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.68 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:27		23.0	7.29	5519.0	1.82	100.3	3591.0		pale brown, no odour, low to moderate turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW171

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	28.698 m bTOC	**Time SWL Measured:**	01:19 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	32.010 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	31.5 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	28.5 to 31.5 m bgl			
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.36 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:19		22.4	7.40	7037.0	2.39	73.5	4577.0		Clear, colourless, slight organic odour, no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW173

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	9.535 m bTOC	**Time SWL Measured:**	01:30 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	11.310 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	10.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	N/A to N/A m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.44 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:30		23.3	7.14	4303.0	3.62	68.6	2797.0		Clear, colourless, slightly organic odour, low sed load, no sheen

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW193

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	11.180 m bTOC	**Time SWL Measured:**	01:10 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.360 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	11.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13.5 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.54 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:10		24.3	7.25	2540.0	2.33	35.2	1651.0		Clear, colourless, low sed load, sulfidic odour, no roots, no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW195D

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.885 m bTOC	**Time SWL Measured:**	09:56 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.370 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	11.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13 m bgl			
Date:	19/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.37 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:56		22.2	7.31	24123.0	1.65	-45.1			Deployed, sleeve and measured surface water level on 19 March.
									Cloudy pale grey, colourless, sulfidic odour, medium sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW195S

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.070 m bTOC	**Time SWL Measured:**	01:50 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.740 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.5 to 6.5 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.53 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:50		24.9	7.29	4158.0	1.63	47.4	2703.0		Clear, colourless, slightly organic odour, no sheen, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW199

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	11.490 m bTOC	**Time SWL Measured:**	01:48 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	17.440 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	17 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.54 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:48		25.6	7.17	20217.0	0.37	-242.6	13141.0		Highly organic and sulfidic odour. Clear and pale grey in colour. No sheen.
									No roots. No sediment load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? | Duplicate collected? No | Duplicate 1 ID:

#Primary sample containers | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW200

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.799 m bTOC	**Time SWL Measured:**	10:59 AM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.610 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl		
Date:	19/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.62 m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:59		24.8	7.58	9163.0	3.12	62.7	5955.0		Clear, colourless, salty and organic odour, low sed load, no sheen

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW202

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.613 m bTOC	**Time SWL Measured:**	02:55 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.907 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	~80 mm	**Stick Up:**	0.665 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:55		22.7	7.57	1583.0	3.06	52.0	1029.0		Clear, colourless, slightly salty and organic odour, no sheen, low sediment load
									No well cap. PVC>50mm

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW203

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	10.495 m bTOC	**Time SWL Measured:**	11:27 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.890 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	12.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.53 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:27		24.4	7.26	845.0	3.67	47.9	550.0		Medium sediment load (fine sediment), medium turbidity, clear and clourless
									with pale brown at bottom half of HS (sediment), slightly organic odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW214

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	7.625 m bTOC	**Time SWL Measured:**	10:05 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.077 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	8.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	5.5 to 9 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.595 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:05		21.5	7.24	3016.0	2.32	-80.5	1270.0		Clear, colourless, slightly sulfidic odour, no sheen, low sed load, no roots,
									dark sediment settled at bottom of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW215

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.440 m bTOC	**Time SWL Measured:**	09:43 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.805 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1.5 to 4.5 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.61 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:43		21.9	7.36	1948.0	1.56	-90.3	1270.0		Clear, colourless, sulfidic odour, no sheen, low sed load, roots on top of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW216

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	7.848 m bTOC	**Time SWL Measured:**	09:15 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.440 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	6 to 9 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.65 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:16		20.3	7.45	3606.0	2.33	55.2	2344.0		Clear, colourless, odourless, no sheen, low sed load

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC117_250320

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC217_250320

Purging and Sampling Record

Well ID: MW217

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	8.354 m bTOC	**Time SWL Measured:**	10:44 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.690 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	9.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	6.5 to 9.5 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.58 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:44		21.7	7.49	815.0	6.71	45.5	528.0		Brown/grey and cloudy, high sediment load, no odour, no sheen, no roots

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW220

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	6.625 m bTOC	**Time SWL Measured:**	11:00 AM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.250 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	7.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to -	m bgl	
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.49 m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:00		22.7	7.33	1029.0	3.70	-77.3	669.0		Morerate cloudiness, grey, sulfidic &/ hydrocarbon odour, dark sediment
									at bottom of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW224

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	12.920 m bTOC	**Time SWL Measured:**	11:52 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	14.240 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	13.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	11.25 to 14.25 m bTOC			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.62 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:52		23.8	7.79	1402.0	5.61	18.3	910.0		Clear and colourless, low sediment load, no odour/very slight hydrocarbon
									odour, no sheen or staining

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW225

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.768 m bTOC	**Time SWL Measured:**	01:56 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.405 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl			
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:56		23.9	7.38	5060.0	0.72	8.7	3289.0		strong organic odour, roots present, pale yellow, clear, no sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?

#Primary sample containers

Duplicate collected? No

Duplicate analysis:

Duplicate 1 ID:

Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW226

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.630 m bTOC	**Time SWL Measured:**	12:23 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.070 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 3.8 m bgl			
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:23		27.5	7.40	11722.0	0.91	80.9	7056.0		clear, yellow, no odour, no sheen, some organic matter floating throughout

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? | Duplicate collected? No | Duplicate 1 ID:

#Primary sample containers | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW227

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.705 m bTOC	**Time SWL Measured:**	03:30 PM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.105 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl		
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.61 m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:30		22.2	7.25	4124.0	4.42	53.4	2683.0		Clear, pale green colour, no sheen, roots on top of HS, sulfidic odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC309_250320

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID: 0089_QC409_250320

Purging and Sampling Record

Well ID: MW228

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.110 m bTOC	**Time SWL Measured:**	11:33 AM		
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.055 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**			
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**			
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 3.75 m bgl				
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m		
Round:	Post Summer 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:42		28.3	7.36	10733.0	0.90	80.7	7023.0		clear, yellow, no odour, no sheen, some organic matter floating throughout

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?

#Primary sample containers

Duplicate collected? No

Duplicate analysis:

Duplicate 1 ID: 0089_QC103_250310

Duplicate 2 ID: 0089_QC203_250310

Purging and Sampling Record

Well ID: MW236

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.039 m bTOC	**Time SWL Measured:**	08:02 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.063 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.59 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
8:02		22.0	7.45	807.0	1.37	36.1	525.0		Low sediment load, pale brown grey, slightly coloury, no sheen, faint
									hydrocarbon odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW238

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.420 m bTOC	**Time SWL Measured:**	10:33 AM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.045 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	6.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:33		21.9	7.53	697.0	0.94	-37.0	453.6		clear, colourless, sulfidic odour, roots on top of HS, no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW239

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**		**SWL:**	DRY m bTOC	**Time SWL Measured:**	10:00 AM
Project:	12641234	**Sample Method:**		**Well Depth:**	2.273 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**		**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**		**Screened Interval From:**	to m bTOC		
Date:	17/03/2025	**WLevel Meter Type:**		**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
									Well was burried by infill sand. Well dry. Not sampled.

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW240

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.062 m bTOC	**Time SWL Measured:**	10:12 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.805 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	6.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl			
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:12		23.3	7.53	879.0	2.00	38.1	571.0		moderately cloudy, colourless w brown sediment settled at bottom, weak
									hydrocarbon odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW242

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.184 m bTOC	**Time SWL Measured:**	12:17 PM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.260 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.64 m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:17		26.8	7.82	472.0	1.40	-127.1	307.4		very cloudy and dark grey brown, sulfific odour, no sheen

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW243

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.491 m bTOC	**Time SWL Measured:**	09:43 AM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.002 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	6.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:43		21.2	7.59	1412.0	1.70	60.4	914.0		clear, colourless, odourless, organic sediment settled at bottom of sleeve

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW245

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.173 m bTOC	**Time SWL Measured:**	11:15 AM
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.335 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.64 m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:15		21.5	7.48	456.0	2.00	-78.0	296.4		clear, light pale grey, strong hydrocarbon odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes
#Primary sample containers 2
Duplicate collected? No
Duplicate analysis:
Duplicate 1 ID:
Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW249

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.950 m bTOC	**Time SWL Measured:**	12:33 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.260 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3.5 to 6.5 m bgl			
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.64 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:33		23.9	7.22	1435.0	1.16	-101.6	933.0		cloudy and grey brown, hydrocarbon odour, hydrocarbon staining on HS

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW255

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.243 m bTOC	**Time SWL Measured:**	11:10 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.289 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.565 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:10		25.2	8.00	374.9	2.70	28.3	243.7		High sediment load, clear and colourless with organic brown sediment
									throughout (likely collected when pulling HS), organic odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW256

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.311 m bTOC	**Time SWL Measured:**	09:35 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.670 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:35		21.7	7.06	1870.0	0.83	-118.2	1215.0		Clear, colourless, sulfudic odour, no sheen, low sed load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW257

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.310 m bTOC	**Time SWL Measured:**	10:17 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.290 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.7 to 5.7 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:17		23.2	7.74	524.0	3.29	42.9	340.5		Clear, colourless, sulfidic and organic odour, no sheen, no roots, no sediment
									load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW258

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.355 m bTOC	**Time SWL Measured:**	10:12 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.354 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:12		23.2	7.07	1098.0	1.25	35.5	1098.0		Clear, colourless, sulfudic odour, no sheen, low sed load, roots on top of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes | Duplicate collected? No | Duplicate 1 ID:

#Primary sample containers | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW259

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.319 m bTOC	**Time SWL Measured:**	09:52 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.380 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:52		21.3	7.40	622.0	3.20	-0.8	404.7		Clear, colourless, sulfudic odour, no sheen, low sed load, roots on top of HS,
									dark brown sediment at bottom of HS

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW269

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.805	m bTOC	**Time SWL Measured:**	01:49 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.205*	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5	to 5.5 m bTOC			
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.615	m
Round:	Post Summer 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:49		25.9	7.23	1537.0	1.70	-96.2	1000.0		clear and colourless, slightly salty and organic odour, no staining, no sediment
									load
									*Erroneous well depth. Well depth recorded in June 2025 was 5.852.

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW288

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.595 m bTOC	**Time SWL Measured:**	02:35 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.880 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.25 to 5.25 m bgl			
Date:	18/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.51 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:35		25.6	7.58	1063.0	1.83	-26.5	692.0		Clear and colourless, slightly organic and salty odour, no sheen, no roots

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?

#Primary sample containers

Duplicate collected? No

Duplicate analysis:

Duplicate 1 ID:

Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW289

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.060 m bTOC	**Time SWL Measured:**	03:06 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.050 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	45 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.25 to 6.25 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.665 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:06		22.9	7.40	839.0	1.96	33.6	545.0		High sediment load, brown, odourless, no sheen, large amount of sand.
									Well cap was covered by sand and sand had fallen down well

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW468

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.101 m bTOC	**Time SWL Measured:**	11:31 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.850 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	19/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	1.4 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:31		25.7	7.39	20544.0	3.49	24.3	13365.0		Moderately cloudy, pale brown, salty and organic odour, medium sed load
									no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW496

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	4.805 m bTOC	**Time SWL Measured:**	01:15 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.205 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3.5 to 8 m bgl			
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.615 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:15		24.7	7.35	1408.0	0.46	-215.5	916.0		clear and colourless, hydrocarbon odour, no staining, no sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW500

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.254 m bTOC	**Time SWL Measured:**	09:31 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.710 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 6.5 m bgl			
Date:	21/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:31		23.7	7.29	669.0	1.37	58.5	435.5		Moderately cloudy, pale grey, medium sediment load, yellow sand desposited
									at bottom of HS, might hydrocarbon odour, no sheen, roots on top of HS

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW516

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	6.078 m bTOC	**Time SWL Measured:**	01:02 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.881 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	4.5 to 7.5 m bgl			
Date:	17/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.66 m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:02		27.1	7.29	976.0	0.81	-77.7	634.0		cloudy pale brown, hydrocarbon odour, hydrocarbon staining, medium sediment
									load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW539

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	5.328 m bTOC	**Time SWL Measured:**	11:30 AM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	- m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	6.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 7.5 m bgl			
Date:	20/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	N/A m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:30		23.0	7.62	22009.0	2.67	-63.8	14306.0		Clear and colourless, low sediment load, hydrocarbon odour, no sheen
									or staining

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Gatic

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: MW553

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.505 m bTOC	**Time SWL Measured:**	02:45 PM	
Project:	12641234	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.730 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	N/A m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Post Summer 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:45		25.4	7.42	933.0	1.84	-113.5	607.0		hydrocarbon odour, Light sediment load, slightly cloudy pale grey, no sheen,
									dark grey sediment at bottom of sleeve

Field QA Checks:		*Stabilisation Readings*	
Air bubbles in vials or violent reactions?	No		Current parameter is stablised based on the previous 3 readings
Decontamination as per GHD procedure?	Yes		Current parameter is not stabilised based on the previous 3 readings
Was sampling equipment pre-cleaned?	Yes		Potential data entry error, confirm the value entered is correct
COC updated?	Yes		

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: PW304

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:50		30.4	7.66	4180.0	3.00	47.7	2708.0		very pale grey, slight organic odour (salty), low to moderate turbidity,
									moderate sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW306

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:26		25.3	7.79	55729.0	4.07	113.0	36242.0		clear, colourless, slight organic and salty odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW307

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:13		24.7	7.78	55379.0	3.92	64.0	36025.0		clear, colourless, slightly organic salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW308

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:05		29.2	7.97	55589.0	3.30	83.8	30164.0		clear, colourless, slightly organic salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW314

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:42		24.1	7.71	55611.0	1.56	-98.0	36455.0		moderately cloudy, pale grey, slight organic and salty odour, moderate
									sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW315

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:05		29.3	7.65	42529.0	3.12	53.2	27644.0		clear, colourless, slightly organic salty odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW316

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:35		30.0	7.79	55750.0	3.84	85.7	36252.0		clear, colourless, slightly organic salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC104_250311
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC204_250311

Purging and Sampling Record

Well ID: PW329

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:14		24.0	7.46	59490.0	2.16	93.5	38679.0		pale yellow grey, clear, no odour, low turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW330

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:33		25.1	7.61	58189.0	3.53	92.3	37797.0		colourless, clear, no odour, low turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC113_250314
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC213_250314

Purging and Sampling Record

Well ID: PW331

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:17		24.5	7.31	58893.0	4.02	88.2	38276.0		colourless, clear, no odour, low turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW335

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:36		24.9	7.42	42781.0	4.07	54.7	27808.0		pale yellow, clear, no odour, low turbidity, moderate sediment load, organic
									matter present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW340

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:08		26.4	7.59	39690.0	3.76	75.7	25798.0		pale yellow, clear, no odour, low turbidity, moderate sediment load, organic matt
									present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW341

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:24		26.8	7.46	34049.0	4.51	78.5	22132.0		colourless, clear, no odour, low turbidity, low sediment load, organic matter
									present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW345

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:02		26.0	7.35	14004.0	2.11	96.2	9089.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC111_250313
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC211_250313

Purging and Sampling Record

Well ID: PW346

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:50		25.3	7.06	38559.0	0.88	-158.8	25062.0		cloudy, brown, strong sulphidic odour, high turbidity, moderate sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW350

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:32		24.2	7.96	55419.0	3.52	121.5	36036.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW351

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:44		23.8	7.96	55677.0	3.33	99.8	36200.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW352

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:55		24.3	7.95	55622.0	4.99	84.4			Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW356

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:23		24.3	7.49	57947.0	3.23	94.6	37608.0		colourless, clear, no odour, low turbidity, low sediment load, organic matter
									present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC113_250314
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC213_250314

Purging and Sampling Record

Well ID: PW357

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:02		25.4	7.45	63354.0	3.39	87.9	41152.0		colourless, clear, no odour, low turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC113_250314

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC213_250314

Purging and Sampling Record

Well ID: PW358

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:08		25.5	7.55	56570.0	2.19	91.5	36763.0		pale yellow, clear, no odour, low turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW362

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:20		26.3	7.58	41666.0	4.24	79.7	27083.0		colourless, clear, no odour, low turbidity, moderate sediment load, organic
									matter present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW363

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:32		25.9	7.37	33879.0	4.11	79.0	22021.0		colourless, clear, no odour, low turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW364

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	14/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:51		25.6	7.50	45434.0	3.47	74.3	29532.0		pale yellow, clear, no odour, low turbidity, moderate sediment load, organic
									matter present

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW367

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:24		26.6	7.49	7711.0	2.68	73.3	5018.0		cloudy, pale orange, slight organic odour (salty), low to moderate turbidity, low
									sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW368

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:39		27.7	7.52	1229.0	1.33	37.0	799.0		very pale grey, slight organic odour (salty), low to moderate turbidity, moderate
									sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW369

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	13/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
9:45		25.1	7.45	12567.0	2.51	99.8	8201.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW374

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:54		22.9	7.76	55365.0	4.65	113.6	35937.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW375

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:05		25.2	7.46	10266.0	2.66	96.0	6673.0		pale brown, slight organic odour (salty), low to moderate turbidity, low
									sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW378

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:20		23.2	7.29	21429.0	25.40	105.1	13929.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW401

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:56		24.3	7.88	55654.0	3.74	107.3	36182.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW405

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:05		24.9	7.40	15755.0	1.21	61.3	10202.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW407

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:		**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641235	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	Yes
Proj. No.:		**Sample Depth:**	0.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:28		25.1	7.52	54522.0	2.03	120.6	35408.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Above EC of porewater. could not sample further from shore due to rock presence beneath sand

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	QC102
#Primary sample containers		Duplicate analysis:		Duplicate 2 ID:	QC302

Purging and Sampling Record

Well ID: PW409

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:15		27.0	7.39	44789.0	2.35	98.9	29080.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 8m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW411

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:20		25.8	7.76	54781.0	3.87	95.6	35572.0		clear, colourless, slightly organic salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 4m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW413

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:01		26.1	7.76	55716.0	3.41	96.3	36212.0		clear, colourless, slightly organic salty odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: From approx 4m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW415

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:46		27.8	8.17	55847.0	3.35	89.4	36304.0		clear, colourless, slightly organic salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: From approx 4m up from shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: PW480

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	12641234	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	Stirling	**WQuality Meter Type:**	YSI PRO	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/03/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Post Summer 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:17		25.2	7.82	55576.0	4.58	96.9	36128.0		Clear, colourless, slight organic odour (salty), no turbidity, low sediment load

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: from approx 4m up shore

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

0089 STIRLING 1/2

QC Duplicate Sample Register Form – 0089 HMS Stirling

Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
10/03/25	0089-SW408-250310	0089-QC101-250310	0089-QC201-250310	6	[redacted]
11	0089-PW407-250310	0089-QC102-250310	0089-QC202-250310	6	
11	0089-MW228-250310	0089-QC103-250310	0089-QC203-250310	6	
11/03/25	0089-PW316-250311	0089-QC104-250311	0089-QC204-250311	6	
11/03/25	0089-SD316-250311	0089-QC105-250311	0089-QC205-250311	3	
11/03/25	0089-SD411-250311	0089-QC106-250311	0089-QC206-250311	3	
12/03/25	0089-SW353-250312	0089-QC107-250312	0089-QC207-250312	6	
11	0089-PW381-250312	0089-QC108-250312	0089-QC208-250312	6	
11	0089-SD352-250312	0089-QC109-250312	0089-QC209-250312	3	
11	0089-MW158-250312	0089-QC110-250312	0089-QC210-250312	6	
13/03/25	0089-PW345-250313	0089-QC111-250313	0089-QC211-250312	6	
11	0089-SD367-250313	0089-QC112-250313	0089-QC211-250313	3	
14/03/25	0089-PW330-250314	0089-QC113-250314	0089-QC213-250314	6	
11	0089-SD357-250314	0089-QC114-250314	0089-QC214-250314	3	

0089 STIRLING 2/2

QC Duplicate Sample Register Form – 0089 HMS Stirling

	Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
	14/3/25	0089_SW150_250314	0089_QC115_250314	0089_QC215-250314	2	[redacted]
*	17/3/25	0089_MW268_250317	0089_QC116_250317	0089_QC216-250317	2	
(-3) *	20/3/25	0089_MW216_250320	0089_QC117-250320	0089_QC217-250320	2	
*	"	0089_MW227_250320	" _QC118_250320	" _QC218_250320	"	"
*	21/3/25	0089_MW123_250321	0089_QC116_250321	0089_QC216_250321	"	"
	21/3/25	0089_MW120_250321	0089_QC117_250321	0089_QC217_250321	"	"
	21/3/25	0089_MW109_250321	0089_QC118_250321	0089_QC218_250321	"	"
	21/3/25	0089_MW124_250321	0089_QC119_250321	0089_QC219_250321	"	"
	21/3/25	0089_MW126_250321	0089_QC120_250321	0089_QC220_250321	"	"
	21/3/25	0089_MW127_250321	0089_QC121_250321	0089_QC221_250321	"	"

* These dups & splits are cancelled and replaced by 0089_QC116_250321, ... QC117_250321, QC118_250321
* This is because the incorrect split (ARL) containers were used for collection.

RLING 1/2

QA blank sample register

Date/time	QA blank sample ID	Type (please circle)	Notes Rinsate taken off, field blank location, trip blank lab ID	Containers
10/03/25	0089_QC301_250310	(RB) FB TB	off dipper	2 PFAS
"	0089_QC401_250310	RB (FB) TB	Near SD1PW378, main Area	"
11/03/25	0089_QC302_250311	(RB) FB TB	off pore water sampler	"
"	0089_QC402_250311	RB (FB) TB	near MW225	"
12/03/25	0089_QC303_250312	(RB) FB TB	Taken off dipper	"
"	0089_QC403_250312	RB (FB) TB	Near MW158	"
13/3/25	0089_QC304_250313	(RB) FB TB	off porewater Spear	"
"	0089_QC404_250313	RB (FB) TB	near accomodation area	"
14/3/25	0089_QC305_250314	(RB) FB TB	off dipper	"
14/3/25	0089_QC405_250314	RB (FB) TB	near PW364	"
14/3/25	0089_QC501_250314	RB FB (TB)	TBW#1797	"
17/3/25	0089_QC306_250317	(RB) FB TB	Taken off dipper	"
"	0089_QC406_250317	RB (FB) TB	near MW268	"
18/3/25	0089_QC307_250318	(RB) FB TB	Taken off dipper	"
"	0089_QC407_250318	RB (FB) TB	Taken near MW199	"

0089 STIRLING 2/2

QA blank sample register

Date/time	QA blank sample ID	Type (please circle)	Notes Rinsate taken off, field blank location, trip blank lab ID	Containers
19/3/25	0089-QC308-250319	(RB) FB TB	Taken off dipper	2 pfas 20ml
"	0089-QC408-250319	RB (FB) TB	Taken near MW125	"
20/3	"-QC309-250320	(RB) FB TB	Taken off dipper	"
"	"-QC409-250320	RB (FB) TB	Taken near MW227	"
"	"-QC310-250321	(RB) FB TB	Taken off dipper	"
"	"-QC410-250321	RB (FB) TB	Taken near MW126	"
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:**
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER

VEGETATION

SLOPE

EROSION

DESCRIPTIONS

SURFACE WATER
(colour, turbidity, odour, sheen)

SEDIMENT
(describe as soil)

FIELD MEASUREMENTS

TEMPERATURE (°C)

DO (mg/L)

DO (%S)

CONDUCTIVITY (µS/cm)

pH (pH units)

REDOX (mV)

TURBIDITY (NTU)

HYDROLOGICAL DATA

FLOW MEASUREMENT

CROSS SECTION WIDTH (m)

DEPTH (m)

OTHER

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD314
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 9:41:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD314_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD316
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 10:20:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD307_250311	3	0089_QC105_250311	PFAS	
		0089_QC205_250311		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD329
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 9:05:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland in dunes behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, some organic material

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD329_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD346
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 1:50:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland in dunes behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, dark brown, high density of organic matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD346_250313	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD350
CLIENT:	Department of Defence	**DATE:**	12/03/2025 **TIME:** 10:40:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, step slope and dense bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	brown orange, fine to medium, saturated, no odour or staining, beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD350_250312	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD352
CLIENT:	Department of Defence	**DATE:**	12/03/2025 **TIME:** 11:57:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland in dunes behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD352_250312	3	0089_QC109_250312	0089_QC209_250312	

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD356
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 10:23:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, grey layer noted while. digging, slight organic odour (decomposing seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD356_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD358
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 9:05:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland in dunes behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, some organic material

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD358_250312	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD362
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 1:20:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION FTA

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, no odour, organic matter present (old seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD362_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD363
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 1:32:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION FTA

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, no odour, organic matter present (old seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD363_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD364
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 12:51:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION FTA

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, no odour, organic matter present (old seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD364_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD367
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 10:20:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach stp

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, some organic material

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD369_250313	3	0089_QC112_250313	PFAS	
		0089_QC212_250313		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD369
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 9:45:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION westenr beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD369_250313	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD401
CLIENT:	Department of Defence	**DATE:**	12/03/2025 **TIME:** 10:57:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, step slope and dense bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	brown orange, fine to medium, saturated, no odour or staining, beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD401_250312	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD407
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 10:39:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION eastern beach from HSF

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shurbs
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	very pale yellow to white, saturated sand, beach sample

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD407_250310	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future): beach sand from next to Pw407

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD411
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 1:20:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow with brown grey beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD411_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD413
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 1:20:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow with brown grey beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD411_250311				

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD415
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 12:46:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD415_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW130
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD335
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 12:37:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION FTA

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	pale brown, colourless, slightly salty and organic odour, high turbidity, high sediment load with dense organic matter
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, organic matter present (old seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.4
DO (mg/L)	4.90
DO (%S)	73.70
CONDUCTIVITY (µS/cm)	55617.0
pH (pH units)	7.90
REDOX (mV)	64.4
TURBIDITY (NTU)	36151 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW130_250314	2			
0089 _SD335_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW132
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD340
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 1:08:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION FTA

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	pale brown, colourless, slightly salty and organic odour, high turbidity, high sediment load with dense organic matter
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, organic matter present (old seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.8
DO (mg/L)	5.27
DO (%S)	79.70
CONDUCTIVITY (µS/cm)	55788.0
pH (pH units)	7.93
REDOX (mV)	83.6
TURBIDITY (NTU)	36262 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW132_250314	2			
0089 _SD340_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW134
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD341
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 1:26:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION FTA

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	pale brown, colourless, slightly salty and organic odour, high turbidity, high sediment load with dense organic matter
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, organic matter present (old seagrass)

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.6
DO (mg/L)	4.98
DO (%S)	75.20
CONDUCTIVITY (µS/cm)	55825.0
pH (pH units)	7.97
REDOX (mV)	87.8
TURBIDITY (NTU)	36236 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW134_250314	2			
0089 _SD341_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW150
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD331
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 10:17:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION Demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly salty and organic odour
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	23.7
DO (mg/L)	4.52
DO (%S)	64.70
CONDUCTIVITY (µS/cm)	55193.0
pH (pH units)	7.93
REDOX (mV)	82.9
TURBIDITY (NTU)	35900 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW150_250314	2			
0089 _SD331_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW152
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD357
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 10:02:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION Demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly salty and organic odour
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	24.2
DO (mg/L)	4.07
DO (%S)	59.60
CONDUCTIVITY (µS/cm)	55226.0
pH (pH units)	7.98
REDOX (mV)	82.8
TURBIDITY (NTU)	35908 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW152_250314	6	0089_QC115_250314	0089_QC215_250314	
0089 _SD357_250314	3	0089_QC114_250314	0089_QC214_250314	

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW154
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD330
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 9:33:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION Demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly salty and organic odour
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	23.8
DO (mg/L)	4.66
DO (%S)	67.60
CONDUCTIVITY (µS/cm)	55453.0
pH (pH units)	7.98
REDOX (mV)	91.6
TURBIDITY (NTU)	36060 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW154_250314	1			
0089 _SD330_250314				

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW156
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	14/03/2025 **TIME:** 9:05:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION Demolition ground

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland in dunes behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly salty and organic odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	24.0
DO (mg/L)	4.71
DO (%S)	68.50
CONDUCTIVITY (µS/cm)	55668.0
pH (pH units)	7.97
REDOX (mV)	90.7
TURBIDITY (NTU)	36197 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW156_250314	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW305
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD304
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 12:54:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, overcast
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, no sheen, slight organic odour (salty), low tutbidity
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown, organic material noted roots & wrack

FIELD MEASUREMENTS

TEMPERATURE (°C)	27.7
DO (mg/L)	5.65
DO (%S)	86.90
CONDUCTIVITY (µS/cm)	55864.0
pH (pH units)	8.05
REDOX (mV)	25.0
TURBIDITY (NTU)	36136(tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD304_250313?	1			
0089_SW305_250313	2			

OTHER COMMENTS FOR CONSIDERATION

(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW309
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD375
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 9:14:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION main area samples

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shrubs /rocky
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (salty), low turbidity, low sediment load
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	24.8
DO (mg/L)	4.32
DO (%S)	63.90
CONDUCTIVITY (µS/cm)	54881.0
pH (pH units)	7.97
REDOX (mV)	119.6
TURBIDITY (NTU)	35684 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW309_250311	2			
0089_SD306_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW310
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD307
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 10:20:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	pale yellow to clear, slight organic odour (salty), moderate sediment load, liw turbidity
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.4
DO (mg/L)	4.10
DO (%S)	65.30
CONDUCTIVITY (µS/cm)	55723.0
pH (pH units)	8.04
REDOX (mV)	73.5
TURBIDITY (NTU)	36205 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD307_250311	1			
0089_SW310_250311	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW311
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD308
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 11:25:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, slight organic odour (salty), moderate sediment load, low turbidity
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	28.6
DO (mg/L)	5.76
DO (%S)	86.20
CONDUCTIVITY (µS/cm)	55515.0
pH (pH units)	8.08
REDOX (mV)	86.6
TURBIDITY (NTU)	36086 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD308_250311	1			
0089_SW311_250311	2			

OTHER COMMENTS FOR CONSIDERATION

(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW317
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD378
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 2:17:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION main area sampes

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shrubs /rocky
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (salty), low turbidity, low sediment load
SEDIMENT (describe as soil)	saturated, fine-medium grained pale yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	24.7
DO (mg/L)	5.65
DO (%S)	84.00
CONDUCTIVITY (µS/cm)	55529.0
pH (pH units)	8.12
REDOX (mV)	109.3
TURBIDITY (NTU)	36094 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW317_250310	2			
0089_SD378_250310	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW318
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD375
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 2:07:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION main area samples

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shrubs /rocky
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (salty), low turbidity, low sediment load
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	24.3
DO (mg/L)	6.69
DO (%S)	84.40
CONDUCTIVITY (µS/cm)	54534.0
pH (pH units)	8.12
REDOX (mV)	111.9
TURBIDITY (NTU)	33512 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW318_250310	2			
0089_SD375_250310	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW319
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD374
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 1:54:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION main area samples

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shrubs /rocky
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (salty), low turbidity, low sediment load
SEDIMENT (describe as soil)	saturated, fine-medium grained pale yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	23.0
DO (mg/L)	6.46
DO (%S)	83.50
CONDUCTIVITY (µS/cm)	55636.0
pH (pH units)	8.16
REDOX (mV)	111.0
TURBIDITY (NTU)	18633 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW319_250310	2			
0089_SD374_250310	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW353
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/03/2025 **TIME:** 10:05:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, step slope and dense bushland behind beach
SLOPE	low
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly organic and salty odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.0
DO (mg/L)	5.22
DO (%S)	79.20
CONDUCTIVITY (µS/cm)	55306.0
pH (pH units)	8.07
REDOX (mV)	119.0
TURBIDITY (NTU)	35979 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW353_250312	6	0089_QC107_250312	0089_QC207_250312	

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW370
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD345
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 10:02:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, no sheen, slight organic odour, low tutbidity
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	26.8
DO (mg/L)	3.70
DO (%S)	55.60
CONDUCTIVITY (µS/cm)	55583.0
pH (pH units)	7.94
REDOX (mV)	84.2
TURBIDITY (NTU)	36137 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD345_250313	1			
0089_SW370_250313	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW371
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD368
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 12:37:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION westenr beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, no sheen, slight organic odour, low tutbidity
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	28.3
DO (mg/L)	3.81
DO (%S)	59.00
CONDUCTIVITY (µS/cm)	54550.0
pH (pH units)	7.88
REDOX (mV)	87.5
TURBIDITY (NTU)	35477 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD368_250313	1			
0089_SW371_250313	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW372
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 12:52:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach stp

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, overcast
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, no sheen, slight organic odour (salty), low tutbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	27.8
DO (mg/L)	5.64
DO (%S)	85.70
CONDUCTIVITY (µS/cm)	55919.0
pH (pH units)	8.07
REDOX (mV)	23.9
TURBIDITY (NTU)	36334 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD304_250313?	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW373
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	13/03/2025 **TIME:** 12:50:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION western beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, overcast
VEGETATION	seaweed on beach, reedy bushland behind beach
SLOPE	slight
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, no sheen, slight organic odour (salty), low tutbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	27.8
DO (mg/L)	5.31
DO (%S)	80.30
CONDUCTIVITY (µS/cm)	55214.0
pH (pH units)	8.08
REDOX (mV)	26.2
TURBIDITY (NTU)	36400 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW373_250313	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW382
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD381
CLIENT:	Department of Defence	**DATE:**	12/03/2025 **TIME:** 11:44:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION western beach STP

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland in dunes behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (salty), moderate sediment load, low turbidity
SEDIMENT (describe as soil)	SAND, saturated, fine-medium grained, yellow brown

FIELD MEASUREMENTS

TEMPERATURE (°C)	23.8
DO (mg/L)	4.71
DO (%S)	67.30
CONDUCTIVITY (µS/cm)	55215.0
pH (pH units)	8.12
REDOX (mV)	99.4
TURBIDITY (NTU)	35899 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD381_250312	1			
0089_SW382_250312	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW384
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/03/2025 **TIME:** 10:05:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, step slope and dense bushland behind beach
SLOPE	low
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly organic and salty odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.0
DO (mg/L)	4.96
DO (%S)	76.20
CONDUCTIVITY (µS/cm)	55214.0
pH (pH units)	8.04
REDOX (mV)	120.0
TURBIDITY (NTU)	35169 tds mgL

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW384_250312	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW406
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD405
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 11:11:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION eastern beach from HSF

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	sparse veg
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (wrack), low turbidity, low sediment load
SEDIMENT (describe as soil)	moist fine-medium grained light brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	24.2
DO (mg/L)	6.44
DO (%S)	94.90
CONDUCTIVITY (µS/cm)	55662.0
pH (pH units)	7.38
REDOX (mV)	82.8
TURBIDITY (NTU)	36174 tds

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW406_250310	2			
0089_SD405_250310	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW408
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 9:40:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION eastern beach from HSF

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shurbs
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, no turbidity, no sheen, no odour, mod sediment load, ocean water
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.9
DO (mg/L)	7.19
DO (%S)	99.70
CONDUCTIVITY (µS/cm)	55195.0
pH (pH units)	7.84
REDOX (mV)	136.7
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW408_250310	2	0089_QC101_250310	Standard PFAS	
		0089_QC201_250310		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW410
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SW409
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 12:20:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION eastern beach from HSF

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	coastal shrubs
SLOPE	slight
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slight organic odour (wrack), low turbidity, low sediment load
SEDIMENT (describe as soil)	saturated, fine-medium grained yellow brown beach sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	28.8
DO (mg/L)	3.57
DO (%S)	58.30
CONDUCTIVITY (µS/cm)	55480.0
pH (pH units)	8.04
REDOX (mV)	101.8
TURBIDITY (NTU)	36.056 (tds)

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW410_250310	2			
0089_SD409_250310	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW412
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 1:20:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly organic and salty odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	25.8
DO (mg/L)	4.67
DO (%S)	72.10
CONDUCTIVITY (µS/cm)	55522.0
pH (pH units)	8.19
REDOX (mV)	94.7
TURBIDITY (NTU)	36089 tds

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW412_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW414
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 1:01:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly organic and salty odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	26.9
DO (mg/L)	5.50
DO (%S)	88.70
CONDUCTIVITY (µS/cm)	55648.0
pH (pH units)	8.14
REDOX (mV)	93.5
TURBIDITY (NTU)	36174 tds

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW414_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW416
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/03/2025 **TIME:** 12:46:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	seaweed on beach, sparse bushland behind beach
SLOPE	moderate
EROSION	n/a

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, slightly organic and salty odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	26.7
DO (mg/L)	4.82
DO (%S)	74.20
CONDUCTIVITY (µS/cm)	55566.0
pH (pH units)	8.19
REDOX (mV)	91.4
TURBIDITY (NTU)	36109 tds

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW416_250311	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):



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→ The Power of Commitment

Quarterly Sampling Event – June 2025

PFAS OMP – HMAS Stirling

Department of Defence

28 May 2026

→ **The Power of Commitment**



Project name		Defence PFASIM LC WA					
Document title		Quarterly Sampling Event – June 2025 | PFAS OMP – HMAS Stirling					
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GHD Pty Ltd | ABN 39 008 488 373
Contact: [redacted] Technical Director
999 Hay Street, Level 10
Perth, Western Australia 6000, Australia
T +61 8 6222 8222 | **F** +61 8 6222 8555 | **E** permail@ghd.com | **ghd.com**

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List of acronyms

Acronym	Term
ADWG	Australian Drinking Water Guideline
AFFF	Aqueous film-forming foam
AHD	Australian Height Datum
ANZG	Australian and New Zealand Guidelines
AS/NZS	Australian Standards/ New Zealand Standards
AVCAT	Aviation Carrier Turbine
CoC	Chain of Custody
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
DO	Dissolved oxygen
DQI	Data Quality Indicator
DQO	Data Quality Objective
DWER	Department of Water and Environmental Regulation
EC	Electrical Conductivity
EPA	Environmental Protection Authority
ERA	Ecological Risk Assessment
HDPE	High-density Polyethylene
HEPA	Heads of EPA
HMAS	His Majesty's Australian Ship
LC	Lead Consultant
LCS	Laboratory control sample
LOR	Limit of reporting
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEMP	National Environmental Management Plan 3.0
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation reduction potential
PFAS	Per- and poly-fluoroalkyl substances
PFASIM	PFAS Investigation and Management
PFBS	Perfluorobutane sulfonic acid
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan

Acronym	Term
QA/QC	Quality Assurance and Quality Control
RPD	Relative percentage difference
SAQP	Sampling Analysis and Quality Plan
SD	Sediment
SW	Surface Water
TDS	Total Dissolved Solids
WA	Western Australia
WWTP	Wastewater Treatment Plan

List of units

Units	Term
%	Percentage
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per Centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
m bgl	Metres below ground level
mg/kg	Milligrams per Kilogram
mm	Millimetre
mV	Millivolt
pH	Potential of Hydrogen

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1. Introduction

GHD Pty Ltd (GHD) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at His Majesty's Australian Ship (HMAS) Stirling (hereafter referred to as the 'base') in Western Australia (WA). The location of the base, the surrounding PFAS Management Area and key base features are shown in Figure 1 and Figure 2, Appendix A.

The OMP (Defence, 2019) and its associated Sampling Analysis and Quality Plan (SAQP) (GHD, 2025) outlines the rationale and scope for the monitoring of concentrations and extent of PFAS in groundwater, porewater, surface water, and sediment at the base and within the Management Area. Monitoring is undertaken on a quarterly basis including March, June, September and December sampling events. This Sampling Event Factual Report documents the results of the June 2025 Sampling Event.

1.1 Objectives

The key objectives of the OMP are to evaluate:

– The spatial and temporal (including seasonal) nature and extent of PFAS impact in the environment associated with site sources of PFAS derived from legacy use of aqueous film-forming foam (AFFF);
– Changes to the Conceptual Site Model (CSM), which describes the current understanding of PFAS sources, transport pathways and receptors;
– Whether current risks to human and ecological receptors require review;
– The influence that risk management activities at the base, as outlined in the PFAS Management Area Plan (PMAP) (Defence, 2019) have had on PFAS in the environment; and
– Whether any identified changes trigger an action and/or review.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PMAP.

1.2 Purpose of this report

This Sampling Event Factual Report has been prepared to document the results of the June 2025 sampling event, specifically highlighting first-time detections and/or new exceedances of relevant guideline values for perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorooctanoic acid (PFOA) and perfluorobutane sulfonic acid (PFBS).

An Ongoing Monitoring Report (OMR) will be prepared following the completion of each 12-month sampling period or as otherwise agreed.

This report has been prepared with reference to the Defence *Ongoing Monitoring Program Reporting Guidance* issued in February 2024 (Defence, 2024).

2. Scope of work

The scope of work was completed with reference to the OMP SAQP (GHD, 2025), as follows:

– Organise fieldwork and obtain approval for base access to monitoring locations.
– Collection of samples and water quality parameters from nominated locations (refer to Section 2.1).
– Collect and analyse samples for quality assurance and quality control (QA/QC).
– Analysis of samples for PFAS at the limit of reporting (LOR) nominated in the SAQP.
– Data management of the OMP field and laboratory data in the Defence ESdat database.
– Preparation of this Sampling Event Factual Report for the June 2025 sampling event.

2.1 Sampling locations

2.1.1 Groundwater

The groundwater monitoring locations are presented in Table 1 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 1 OMP groundwater monitoring locations

Area	Monitoring Well ID
Fire Training Area	MW109, MW112, MW500, MW120, MW121, MW123, MW124, MW125, MW126, MW127 and MW128
Demolition Ground	MW139, MW141, MW142, MW147 and MW149
WWTP	MW158, MW161, MW166, MW171, MW173, MW193, MW195D, MW195S, MW196, MW199, MW200, MW202, MW203 and MW468
Helicopter Support Facility	MW214, MW215, MW216, MW217, MW220, MW224, MW225, MW226, MW227, MW228 and MW282
Accommodation Area	MW288 and MW289
Dredged Sediments	MW268 and MW269
AVCAT Storage and Fuel Farm	MW233, MW236, MW238, MW239, MW240, MW242, MW243, MW245, MW249, MW496 and MW516
Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage	MW010, MW255, MW256, MW257, MW258, MW259 and MW553

2.1.2 Porewater, surface water and sediment monitoring locations

The porewater, surface water and sediment locations are presented in Table 2 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 2 OMP porewaters, surface water and sediment monitoring locations

Area	Surface water sampling Location ID	Sediment Sampling Location ID	Porewater Sampling Location ID
Fire Training Areas	SW130, SW132, SW134	SD335, SD340, SD341, SD362, SD363, SD364	PW335, PW340, PW341, PW362, PW363, PW364
Demolition Ground	SW150, SW152, SW154, SW156	SD329, SD330, SD331, SD356, SD357, SD358	PW329, PW330, PW331, PW356, PW357, PW358
WWTP	SW305, SW353, SW370, SW371, SW372, SW373, SW382, SW383, SW384	SD304, SD345, SD350, SD351, SD352, SD367, SD368, SD369, SD380, SD381, SD401	PW304, PW345, PW350, PW351, PW352, PW367, PW368, PW369, PW380, PW381, PW401
Helicopter Support Facility	SW309, SW310, SW311, SW406, SW408, SW410, SW412, SW414, SW416	SD306, SD307, SD308, SD314, SD315, SD316, SD405, SD407, SD409, SD411, SD413, SD415	PW306, PW307, PW308, PW314, PW315, PW316, PW405, PW407, PW409, PW411, PW413, PW415
Accommodation Area	-	SD346	PW346
Dredged Sediments	SW317, SW318, SW319	SD374, SD375, SD378	PW374, PW375, PW378

2.2 SAQP deviations

The June 2025 sampling event was completed with reference to the OMP SAQP (GHD, 2025), GHD's health and safety protocols and GHD's standard operating procedures for field work, which have been developed in accordance with WA contaminated land guidance. Deviations from the OMP SAQP are summarised in Table 3.

Table 3 Summary of derivations from the OMP SAQP

Location	Deviation	Comments
MW196	Not sampled	Access to this monitoring location at in the WWTP source area requires a gate to be opened by base personnel. Base personnel were unavailable to open the gate at the time of the sampling event and therefore, the well was not sampled. **Minimal impact** – the range of PFAS concentrations at this well is well understood from historical data and are typically below the LOR. Base-wide groundwater contours were able to be inferred based on the wider monitoring network. Hydraulically down-gradient groundwater water location MW468 (i.e., closer to the receiving environment) was able to be sampled to provide an assessment of risks to the marine environment which is the primary sensitive receptor for the base.
MW239	Not sampled	Consistent with the March 2025 sampling event, this well, located in the AVCAT Storage and Fuel Farm source area, was found to be partially buried and the casing blocked with sand at the time of the sampling event. It was therefore unable to be sampled. **Minimal impact** – the range of PFAS concentrations at this well is well understood from historical data. Base-wide groundwater contours were able to be inferred based on the wider monitoring network. Hydraulically down-gradient groundwater water locations (i.e., closer to the receiving environment) including MW242, MW245, MW249. MW496 and MW516) were able to be sampled to provide an assessment of risks to the marine environment which is the primary sensitive receptor for the base.
PW314	Not sampled	Porewater location PW314, associated with the Helicopter Support Facility, was unable to be sampled due to installation of the piezometer encountering refusal at shallow depth on limestone, before water could be reached. An attempt to sample was made at 4 locations in the vicinity of the sampling location, though all encountered refusal. Refusal has been encountered at this location previously and may reflect tidal influence on the thickness of the sand layer overlying the limestone. **Minimal impact** – proximal locations PW306 to PW308, PW315 and PW316 were able to be sampled.

Location	Deviation	Comments
SD367 and PW367	Not sampled	This co-located sediment and porewater sampling location, associated with the WWTP source area, was unable to be sampled due to an excessive seaweed presence along the shoreline of the beach at the time of the sampling event, which prevented access to the underlying porewater and sediment. **Minimal impact** – proximal co-located locations SD/PW368 and SD/PW345 were able to be sampled. Location SD/PW367 was able to be sampled during the subsequent September 2025 sampling event (reported on separately).
PW350 to PW352, PW380, PW381 and PW401	Sampled using a bailer	These porewater sampling locations are only accessible by walking approximately 2 km along the beach. To minimise HSE risks associated with carrying heavy sampling equipment over this distance, porewater samples were collected from these locations using a bailer rather than a peristaltic pump. All other aspects of the sampling methodology were as outlined in Section 3.1.2. Minimal impact – with reference to Section 3.1.2, purging of porewater is not necessary due to the highly transmissive nature of the intertidal zone sediments. Recorded PFAS concentrations were consistent with historical data.

3. Methodology

3.1 Sampling methodology

The methodology for the June 2025 sampling event was completed with reference to the OMP SAQP (GHD, 2025) as outlined in the following sections.

3.1.1 Groundwater sampling

The groundwater sampling methodology is outlined in Table 4.

Table 4 Groundwater monitoring wells – sampling method

Activity	Details
Well Gauging	Monitoring wells were first gauged to allow subsequent correction of groundwater levels relative to Australian Height Datum (AHD) prior to groundwater sample collection. All depth measurements referenced the top of casing (TOC) of the monitoring well as an established datum.
Groundwater Physicochemical Parameters	Groundwater physiochemical parameters were recorded via a water quality meter from HydraSleeves® or purged water via peristaltic pump. The following parameters were recorded: – pH. – electrical conductivity (EC). – oxidation reduction potential (ORP). – Dissolved oxygen (DO). – Temperature. – Total Dissolved Solids (TDS). The water quality meter was calibrated by the equipment supplier. General observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens) were also recorded.
Deployment and Retrieval of HydraSleeves®	In compliance with section 18 of the Heads of EPA National Environmental Management Plan 3.0 (HEPA NEMP), groundwater samples were collected using bore-dedicated polypropylene HydraSleeves®. The HydraSleeves® were installed and left in place for a minimum of 24 hours prior to retrieving for sample collection. Where monitoring well construction details were available, the HydraSleeves® were positioned to target the approximate mid-section of the water column beneath the screened interval. Where construction details were not available, the HydraSleeves® were placed approximately 1 m from the base of the monitoring well (where sufficient depth of water was present within the well column). Samples were collected via continuous pull method at a rate allowing the water to pass through the check value into the sample sleeve. Samples were discharged immediately (to minimise changes in chemistry) via discharge tube. Following sampling, new HydraSleeves® were deployed in preparation for the next OMP monitoring event using the same string for consistency (same depth of sampling i.e. within screen depth). In the event that a monitoring well was found to contain a HydraSleeve® that belonged to another program, the HydraSleeve® was used for sampling (if it was in satisfactory condition) as outlined above, then replaced with a new HydraSleeve®. This did not occur during the June 2025 sampling event.
Alternative sampling methodology (low flow micro-purge)	In the event the water column wasn't sufficient to fill the HydraSleeve®, the HydraSleeve® was deployed with a top weight to compress the HydraSleeve® and left in wells for a minimum of 24 hours to allow restabilisation. This was not required during the June 2025 sampling event. If the HydraSleeve® was then retrieved with no or insufficient sample volume, low flow sampling occurred via a low flow micro-purge pump using the following methodology: – Post-gauging, each monitoring well was purged using a low flow micro-purge pump fitted with bore-dedicated inert silicone and High-density Polyethylene (HDPE) tubing. The upper end of the tubing was connected to the flow cell of a water quality meter positioned to prevent entrapment of oxygen.

Activity	Details
	– The pump intake was placed approximately 0.5 m below the top of screen (or at least 0.5 m below the top of the water column) to ensure collection of samples representative of groundwater quality beneath the base. – Measurement of water quality parameters was undertaken immediately after the flow cell was full and continued thereafter at two to five-minute intervals during the purging process. – Purging was undertaken until stabilisation of field parameters was achieved after which the well was subsequently sampled. Parameters were considered stable when they are within the following range (where practicable within the time constraints of the program): • Temperature: +/- 0.2 °C* • pH: +/- 0.05 • EC: +/- 3% • DO: +/- 10% • ORP: +/- 10 mV – Representative groundwater samples were collected directly from the HDPE tubing into laboratory supplied sample containers. During the June 2025 sampling event, the alternative sampling methodology was required at monitoring wells MW242 and MW282 **Note: The OMP SAQP (GHD, 2025) erroneously states variation in temperature should be +/- 0.02 °C rather than +/- 0.2 °C*
Field Records	Field records included the following information: – Gauging data – Sampling time and date. – Weather conditions. – Sample collection method. Where a HydraSleeve® is used for sample collection, the target interval depth was recorded. – Stabilised field parameters. – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. – Calibration and daily bump test records. – Well gauging records. All sample documentation including field notes, reporting records, Chain of Custody (CoC) and equipment calibration certificates and procedures were retained within project files.
Decontamination procedure	Dedicated HydraSleeves® or HDPE tubing (in the event that a HydraSleeve® was not used) was used at each groundwater bore, thus removing the need for decontamination of these items. Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.
Sample identification, preservation transport and holding times	Each sample bottle was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were collected directly in laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under CoC documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998).

3.1.2 Porewater sampling methodology

The methodology for porewater sampling is outlined in Table 5.

Table 5 Porewater sampling methodology

Item	Details
Porewater sample Collection	Sampling was conducted using a reusable stainless steel piezometer which has a screened zone consisting of a series of very fine interlaced machined slots to allow porewater to enter the sampler. The sampling end of the piezometer was inserted into the surficial marine sediments to approximately 0.5 m below the surface. Once the target sample depth was reached, porewater was collected using a peristaltic pump fitted with bore-dedicated silicone and HDPE tubing into laboratory supplied bottles. Field parameters were recorded (pH, EC, TDS, ORP, DO and temperature). Purging prior to sampling was not considered necessary due to the highly transmissive nature of the intertidal zone sediments. Field EC and/or TDS readings were used to assess whether the porewater sample is representative of discharging groundwater and not purely seawater.
Field records	Field records included the following information: – Sampling time and date. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. All sample documentation including field notes, reporting records, COC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. Tubing was replaced at each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.1.3 Surface water sampling methodology

The methodology for the surface water monitoring is detailed in Table 6.

Table 6 Surface Water Monitoring

Item	Details
Field parameters	Surface water physiochemical parameters (i.e. pH, EC, ORP, DO, and temperature) were recorded at the time of sampling using a pre-calibrated water quality meter. Field observations such as odours or sheen presence were also recorded on field sampling sheets.
Sampling Method	Where the embankment of the water body was stable and the water body could be safely accessed, surface water samples were collected by hand, directly into the laboratory supplied sample containers using a ‘grab’ (manual) sample method. Where depth permitted, the sample container was positioned at least 10 cm below the surface water level and above the sediment bed and oriented with the capped opening facing downwards to avoid the collection of surface films. Once in position, the container cap was removed to allow sample collection. Where sampling points cannot be safely accessed, surface water samples were collected using a long-handled sampler and decanted into the laboratory supplied sample containers. Samples were collected with reference to Australian/New Zealand Standards (AS/NZS 5667.1:1998) Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.
Sample Collection	Water samples were placed directly into appropriately labelled, laboratory supplied sample bottles and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation.

Item	Details
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions), then double rinsed with laboratory supplied rinsate water before the sample collection.
Sample identification, preservation, transport and holding times.	Each sample container was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were contained in laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998 as appropriate).
Field Records	Field records included the following information: – Sampling time, date and name of the sampler. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g. turbidity, colour etc.) or obvious indicators of contamination (e.g. sheens). – Depth of water body, flow rate and sample depth. – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. – Calibration records. All sample documentation including field notes, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.

3.1.4 Sediment sampling methodology

The methodology for sediment sampling is detailed in Table 7.

Table 7 Sediment Investigation Methodology

Item	Details
Sample Collection	Sediment samples were collected at the sediment/water interface using hand tools (e.g. trowel, hand auger, PVC pipe etc.) with samples placed directly into appropriately labelled, laboratory supplied sample containers and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation. At each sampling location, the sediment sample will be visually assessed and observations (including physical description) recorded on field data sheets.
Field Records	Field records included the following information: – Sampling time, date and name of the sampler. – Sample description. – Weather conditions. – Sample collection method. – Observations regarding sediment quality (e.g., colour, grain size etc.) or obvious indicators of contamination (e.g., staining). – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. All sample documentation including field notebooks, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.2 Quality assurance and quality control

Quality assurance (QA) involves all the actions, procedures, checks and decisions, undertaken to ensure the representativeness and integrity of samples and accuracy and reliability of analytical results (NEPM, 2013). Quality control (QC) involves protocols to monitor and measure the effectiveness of QA procedures.

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (GHD, 2025). A review of the field and laboratory QA/QC performance from the investigation is presented in the QA/QC data validation report, Appendix B. Key findings of the data validation report include:

– The majority of the calculated relative percentage difference (RPD) in concentrations for each duplicate pair, as presented in the tables in Appendix B were within acceptable limits. In most cases, RPD values greater than the acceptance criterion of 30% are considered reflective of the proximity of the reported concentrations to the LOR (i.e., less than 10 times the LOR) or are associated with concentrations that are within the same order of magnitude. On this basis, the RPDs greater than 30% are considered to have minimal impact on the data quality.
– Field blank analytical results were less than the LOR in all cases.
– Rinsate blank analytical results were less than the LOR in all cases.

Overall, the QA/QC assessment concluded that the collected data is considered appropriate for the work undertaken and are considered usable for the purpose of this assessment.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements (Defence, 2021).

4. Guideline values

A summary of the current PFAS guideline values for groundwater, porewater and surface water considered relevant to the base is presented as Table 8. The guideline values are largely based upon:

– The PFAS NEMP (HEPA, 2025) which presents a consolidated set of health- and ecology-based Australian PFAS assessment levels for soil and water that are derived from various guidelines and publications. It is noted that the aquatic ecosystems guideline value for PFOS is lower than the standard LOR that was applied at the porewater and surface water monitoring locations.

– The National Health and Medical Research Council (NHMRC) Australian Drinking Water Guidelines (ADWGs) for PFAS that were published on 25 June 2025 (NHMRC, 2025), after the June 2025 sampling event. It is noted that the ADWG value for PFOS is less than the standard PFAS LOR that was applied at the groundwater monitoring locations.

– The Australian and New Zealand Guidelines (ANZG) for PFOS in freshwater, which were released in March 2026, after the sampling event (ANZG, 2026). In relation to this guideline:

  - The relevant freshwater PFOS value has applied for the marine water data in the Management Area on the basis outlined in the PFAS NEMP whereby freshwater values are nominated as interim marine values in the absence of sufficient data to derive values specific to marine environments.
  - The screening threshold (i.e., 0.0005 µg/L) for triggering assessment of PFOS concentrations in biota has not been considered on the basis that an ERA (RPS, 2018b) has been completed that included measurement of PFAS concentrations in lower trophic level aquatic biota, estimation of PFOS concentrations in fish and shorebirds, and food web modelling to understand risks posed to higher order consumers through bioaccumulation.

It is noted that there is currently no Australian regulatory endorsed screening criteria for risk posed to ecology or human health by PFAS in sediment.

Table 8 Relevant PFAS assessment guideline values

Exposure scenario	Source	Assessment guideline value (µg/L)				
		PFOS	PFHxS	PFOS+ PFHxS	PFOA	PFBS
Groundwater						
Health: potable use of groundwater	NHMRC (2025)	0.008	0.03	-	0.2	1
Porewater and surface water						
Health: Recreational water use	PFAS NEMP	2	2	2	10	-
Ecology: aquatic ecosystems (99% species protection)	PFAS NEMP / ANZG (2026)	0.02	-	-	19	-

It is important to note that an Ecological Risk Assessment (ERA) (RPS, 2018b) has been completed for the base to assess the potential risks to the environment associated with presence of PFAS within the Management Area. While the OMP evaluates PFAS concentration data with reference to the ecology-based screening criteria identified in Table 8, decision-making concerning changes to risks posed to ecological receptors within the Management Area should continue to be made with reference to the ERA conclusions and the dataset that informed it.

5. Field observations and results

5.1 General observations

The sampling event was completed over ten days between 3 and 16 June 2025. The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the sampling event are summarised in Table 9.

Table 9 General Observations

Items	Observations
Weather Conditions	The weather during the sampling event comprised temperatures of between 18.9 ˚C (11 June) and 22.8 ˚C (3 June). Rainfall occurred on 8 of the 10 days. The greatest volume of rainfall was 16 mm on 4 June 2025. Information obtained from Garden Island HSF (Station ID 009256) (Bureau of Meteorology, 2025)
Estate Management Works, Training Activities and/or Construction Works.	Construction of a new building was underway adjacent to the west side of the AVCAT Storage Facility source area. GHD understands these works were unrelated to the PMAP.

5.2 Field observations and measurements

The observations and measurements recorded during the field activities for the June 2025 quarterly sampling event are summarised in Table 10. Field notes are presented in Appendix F.

Table 10 Summary of field observations and measurements

Item	Description
Access and sample collection	Most sampling locations were accessible and able to be sampled. Some groundwater locations were unable to be sampled due to being blocked or inaccessible and one porewater location was not sampled due to refusal (refer to Table 3). Consistent with the March 2025 sampling event, the measured well depth in some monitoring wells (i.e., MW121, MW123, MW139, MW142, MW166, MW193, MW195D, MW249, MW256, MW257, MW282, MW289, MW468, MW500, MW553), when compared to the constructed well depth, suggests sediment may have accumulated within the monitoring wells (refer to Table C1, Appendix C). The wells were still able to be sampled.
Water and sediment observations	Groundwater was predominantly clear, colourless to pale yellow with low turbidity, low to moderate sediment load and no odour or sheen. An organic odour was noted at MW126, MW158, MW199 and MW220. A hydrocarbon odour was noted at MW214, MW215, MW227, MW245, MW249, MW496, MW516, MW553, Porewater was predominantly clear and colourless with low to moderate sediment load and no odour or sheen. Surface water was predominantly clear and colourless with no sheen or odour. Sediment was mostly moist to saturated, pale yellow to light brown/grey, fine to medium grained beach sand. Locations with large seaweed deposits on the beach were found to have organic matter (i.e., decaying seaweed) present within the sediment samples.
Groundwater flow direction	The calculated groundwater elevations (m AHD) are presented in Table C1 in Appendix C. Groundwater elevations across the base at the time of the sampling event ranged from 0.305 (MW124) to 1.609 m AHD (MW233), which is comparable with the historical range. Inferred groundwater contours are presented in Figure 3 to Figure 7 in Appendix A. Groundwater flow direction across the base at the time of the sampling event is summarised below. Generally, groundwater flow was towards the coast, with inward flow and mounding in some areas, likely as a result of tidal influence, which is consistent with previous findings. **Fire Training Area** Generally easterly towards the Cockburn Sound. Some potential mounding is evident to the south of MW112, which is broadly consistent with previous gauging rounds.

Item	Description
	Demolition Ground North-westerly (i.e., inward) groundwater flow, possibly associated with tidal influence from the adjoining Cockburn Sound, consistent with previous gauging rounds. **Wastewater Treatment Plant** Generally north-easterly flow towards the Cockburn Sound. **Helicopter Support Facility** Generally westerly towards the Cockburn Sound. **Main base area** Generally southerly towards the Cockburn Sound.
Geochemical parameters	Water geochemical parameters were measured during the collection of water samples. The readings are presented in Tables C1, C2 and C3 in Appendix C and are summarised below: **Groundwater** – Temperature ranged from 18.1 ˚C (MW149) to 24.2 ˚C (MW242) – pH ranged from 6.67 (MW139) to 9.01 (MW240) indicating slightly acidic to alkaline conditions. – EC ranged from 308.1 µS/cm (MW233) to 63,112 µS/cm (MW127) indicating fresh to saline conditions. – TDS ranged from 203.5 mg/L (MW233) to 33,387 mg/L (MW149) indicating fresh to saline conditions. – DO ranged from 0.95 mg/L (MW255) to 27.3 mg/L (MW120) indicating poor to well oxygenated conditions*. – Redox ranged from -635.2 mV (MW173) to 117.3 mV (MW258) indicating both reducing and oxidising conditions. **Porewater** – Temperature ranged from 15.8 ˚C (PW405) to 21.4 ˚C (PW352). – pH ranged from 7.13 (PW369) to 9.72 (PW356) indicating circum-neutral to alkaline conditions. – EC ranged from 16,653 µS/cm (PW346) to 57,163 µS/cm (PW329) indicating brackish to saline conditions. – TDS ranged from 10,803 mg/L (PW346) to 36,258 mg/L (PW350) indicating saline conditions. – DO ranged from 6.66 mg/L (PW346) to 15.6 mg/L (PW329) indicating moderate to well oxygenated conditions*. – Redox ranged from -461.9 mV (PW375) to -50.2 mV (PW401) indicating reducing conditions. **Surface water** – Temperature ranged from 17.5 ˚C (SW319) to 21.9 ˚C (SW383). – pH ranged from 7.74 (SW130) to 8.88 (SW150) indicating slightly alkaline to alkaline conditions. – EC ranged from 29,658 µS/cm (SW309) to 54,158 µS/cm (SW383) indicating saline conditions. – TDS (where recorded) ranged from 34,341 mg/L (SW372) to 35,379 mg/L (SW382) indicating saline conditions. – DO ranged from 8.75 mg/L (SW310) to 15.6 mg/L (SW383) indicating well oxygenated conditions*. – Redox ranged from -469.5 mV (SW318) to 346.2 mV (SW371) indicating both reducing and oxidising conditions. *It is noted that DO concentrations recorded during the monitoring event were generally elevated with respect to recent data (i.e., greater than the maximum concentrations of 9.55, 9.95 and 6.95 mg/L in groundwater, porewater and surface water respectively, recorded between June 2022 and March 2025). This could represent a fault with the YSI, although the supplier's calibration certificate indicated acceptable calibration and condition of the unit at commencement of fieldwork (refer to Appendix D).

5.3 Summary of analytical results

The PFAS analytical results for groundwater, surface water, sediment and porewater from this sampling event are presented in Table C4 to C7 in Appendix C and are summarised in Figure 8 to Figure 13 in Appendix A..

5.3.1 Groundwater

60 primary groundwater samples were analysed for PFAS, with:

– 24 samples reporting **PFBS** concentrations above the LOR. Four of these were above the ADWG value (1 µg/L) namely, MW256 (1.65 µg/L), MW258 (5.04 µg/L), MW282 (2.43 µg/L) and MW171 (1.61 µg/L).
– 44 samples reporting **PFOS** concentrations above the LOR. All of these reported concentrations above the ADWG value (0.008 µg/L), noting that the LOR that was applied is greater than the ADWG value. 16 samples reported PFOS concentrations below the LOR (i.e., <0.01) and it therefore cannot be determined whether PFOS concentrations in these samples were above or below the ADWG value.
– 46 samples reporting **PFHxS** concentrations above the LOR. Of these, 37 samples reported concentrations greater than the ADWG value (0.03 µg/L).
– 29 samples reporting **PFOA** concentrations above the LOR. Of these, 12 samples reported concentrations greater than the ADWG value (0.2 µg/L).

A summary of groundwater locations where concentrations were greater than those previously reported (i.e., first-time detections or new maximums) is presented as Table 11.

Table 11 Deviations from historical dataset – groundwater analytical results

Item	Sample location	PFBS (µg/L)		PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		June 2025	Previous Max.	June 2025	Previous Max.	June 2025	Previous Max.	June 2025	Previous Max.
First-time detection	None	No first-time detections							
New historical maximum	MW121	2.5*	0.64	No new maximum		No new maximum		No new maximum	
	MW171	No new maximum		7.26	6.95	0.41	0.39	2.73	2.65
	MW215	0.57	0.16	2.62	1.22	0.08	0.03	No new maximum	
	MW228	0.46	0.38	No new maximum		No new maximum		0.03	0.004
	MW268	No new maximum		0.85	0.82	0.01	0.003	No new maximum	
	MW289	0.13	0.12	No new maximum		No new maximum		No new maximum	
*Split duplicate sample result									

5.3.2 Porewater

In summary, 37 primary porewater samples were analysed for PFAS, with:

– Six samples reporting a **PFOS** concentration above the LOR. One of these (PW401) reported a concentration equal to the aquatic ecosystems value (0.02 µg/L) and three (PW346, PW350 and PW368) reported concentrations greater than this value.
– One sample (PW346) reporting a **PFHxS** concentration above the LOR. The concentration was less than the recreational guideline value (2 µg/L).
– Six samples reporting a **PFOS+PFHxS** concentration above the LOR. All reported concentrations were less than the recreational guideline value (2 µg/L).
– One sample (PW346) reporting a **PFOA** concentration above the LOR. The reported concentration was less than the aquatic ecosystems guideline value (19 µg/L) and the recreational guideline value (10 µg/L).

There were no first-time detections or new maximum PFAS concentrations in porewater samples.

5.3.3 Surface water

28 primary surface water samples were analysed for PFAS. All PFAS were reported at concentrations below the LOR and therefore, there were no first-time detections or new maximum PFAS concentrations in surface water samples.

5.3.4 Sediment

38 primary sediment samples were analysed for PFAS compounds, with:

– No samples reporting a **PFBS** concentration above the LOR.
– Two samples reporting a **PFOS** concentration above the LOR. This included SD346, associated with the accommodation area, with a concentration of 0.0009 mg/kg and SD350, associated with the WWTP, with a concentration of 0.0003 mg/kg.
– Two samples reporting a **PFHxS+PFOS** concentration above the LOR, with concentrations equal to the PFOS concentrations outlined above (i.e., all samples comprised PFOS only).
– No samples reporting a **PFHxS** concentration above the LOR.
– No samples reporting a **PFOA** concentration above the LOR.

There were no first-time detections or new maximum PFAS concentrations in sediment samples.

6. Summary

The findings and recommended actions from the June 2025 sampling event are summarised in Table 12.

Table 12 Summary of sampling event

Item	Comment	Recommended Action
Access to sampling locations	All locations were accessible apart from MW196 at the WWTP source area (refer to Section 2.2).	Locations hydraulically down-gradient of MW196 (i.e., closer to the receiving environment) were able to be sampled to provide an assessment of risks to the marine environment, which is the primary sensitive receptor for the base. Subsequent monitoring events will seek to obtain access to MW196 via base personnel. The well was sampled during the subsequent September 2025 event (reported on separately).
Location unable to be sampled, inaccessible or dry	With reference to Section 2.2, porewater location PW413 was unable to be sampled due to encountered refusal on limestone, while co-located porewater and sediment sampling location SD/PW367 was unable to be sampled due to the presence of excessive seaweed on the shoreline of the beach. Consistent with the previous March 2025 sampling event, MW239 in the AVCAT Storage and Fuel Farm was blocked and unable to be sampled. As noted in Section 5.1, the measured well depth in some monitoring wells suggests sediment may have accumulated within the monitoring wells. The wells were still able to be sampled and the recorded PFAS concentrations were within the historical range.	In both cases, proximal porewater and sediment monitoring locations were able to be sampled to provide an indication of any change in PFAS concentrations and associated exposure risks at the point of groundwater discharge to the marine environment. The locations were able be sampled as part of the subsequent September 2025 sampling event (reported on separately). Replacement/repair of MW239 and wells with accumulated sediment is not recommended as a matter of priority at this time. The forthcoming OMP Revision will review the value of the monitoring well in the context of the OMP objectives and make a recommendation for repair, re-installation or otherwise.
Analytical results	60 groundwater samples, 37 porewater samples, 28 surface water samples and 38 sediment samples were analysed. Concentrations recorded were generally consistent with historical data.	Locations will be sampled again during the next OMP sampling event. Data will be evaluated further within the context of the OMP objectives (refer to Section 1.1) as part of the forthcoming OMR. The requirement to apply a non-standard LOR at selected monitoring locations to inform a suitable risk assessment will be considered as part of the OMR and forthcoming OMP Revision process.
First-time detections of PFBS, PFHxS, PFOA and/or PFOS	No first-time detections were identified during the June 2025 sampling event.	
New historical maximum concentrations	New historical maximum concentrations were reported at groundwater monitoring locations MW121 (in the Fire Training Area), MW171 (associated with the WWTP), MW215, MW228 (both in the Helicopter Support Facility), MW268 (in the Dredged Sediments source area) and MW289 (in the Accommodation Area). In all cases, the new maximum concentrations were within one order of magnitude of the previous maximum concentrations.	
New exceedance of human health guideline value	Numerous groundwater monitoring locations recorded PFAS concentrations in excess of the revised ADWGs that were released in June 2025, after the sampling event. It is noted that the standard LOR that was applied (i.e., 0.01 µg/L) exceeds the revised ADWG for PFOS (0.008 µg/L). GHD understands that groundwater is not abstracted on the base for potable or non-potable	

	use. Potable water for Garden Island is supplied from the Rockingham town water supply (GHD, 2025).	
New exceedance of adopted guideline values?	No surface water or porewater locations reported new exceedances of the adopted ecological guideline values for PFOS and/or PFOA.	

7. References

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8. Limitations

This report has been prepared by GHD for Department of Defence and may only be used and relied on by Department of Defence for the purpose agreed between GHD and Department of Defence as set out in Section 1.2 of this report.

GHD otherwise disclaims responsibility to any person other than Department of Defence arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

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The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

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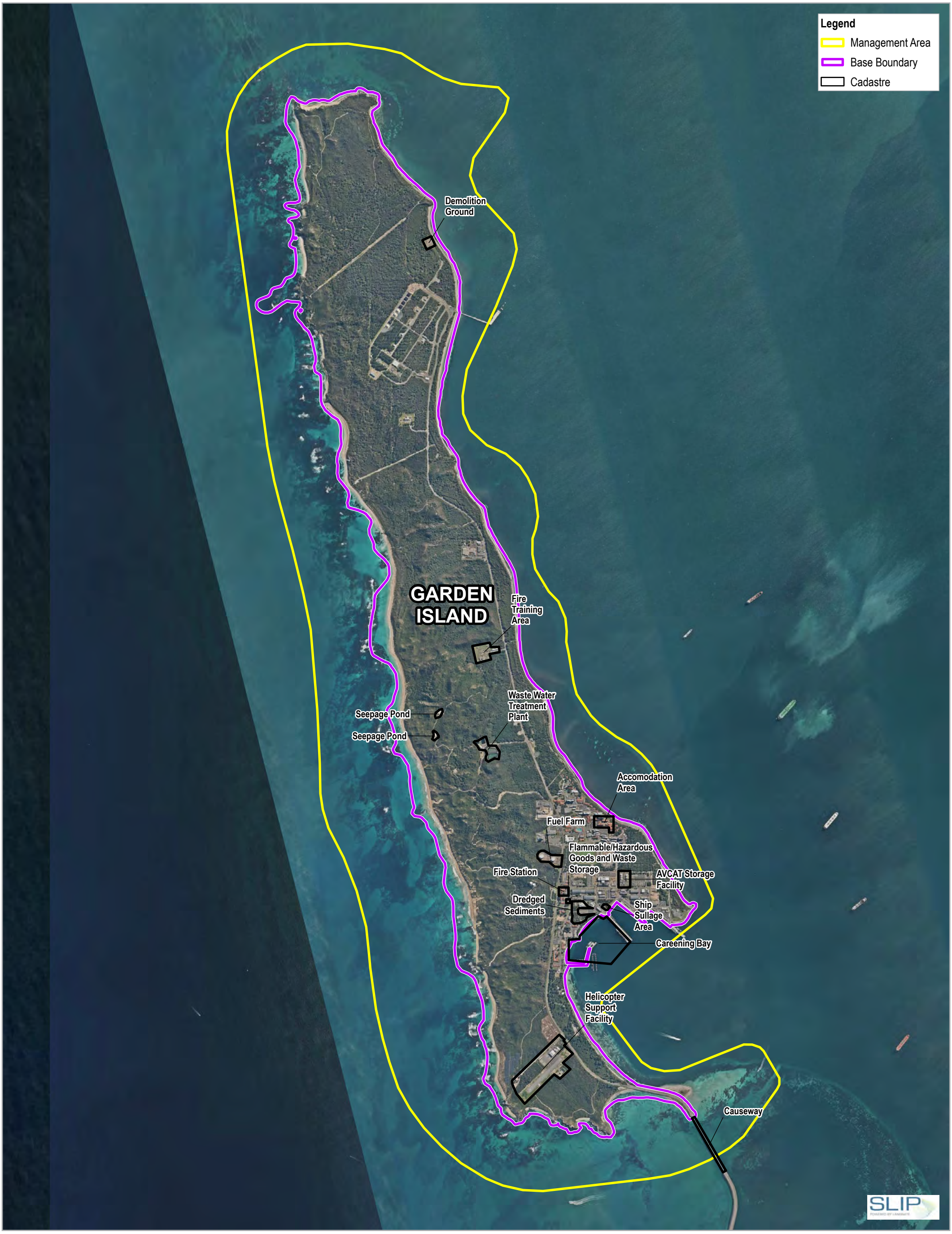
Appendices

Appendix A

Figures



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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

Base Layout and Management Area

Project No. **12641234**
Revision No. **0**
Date **03/12/2025**

FIGURE 1

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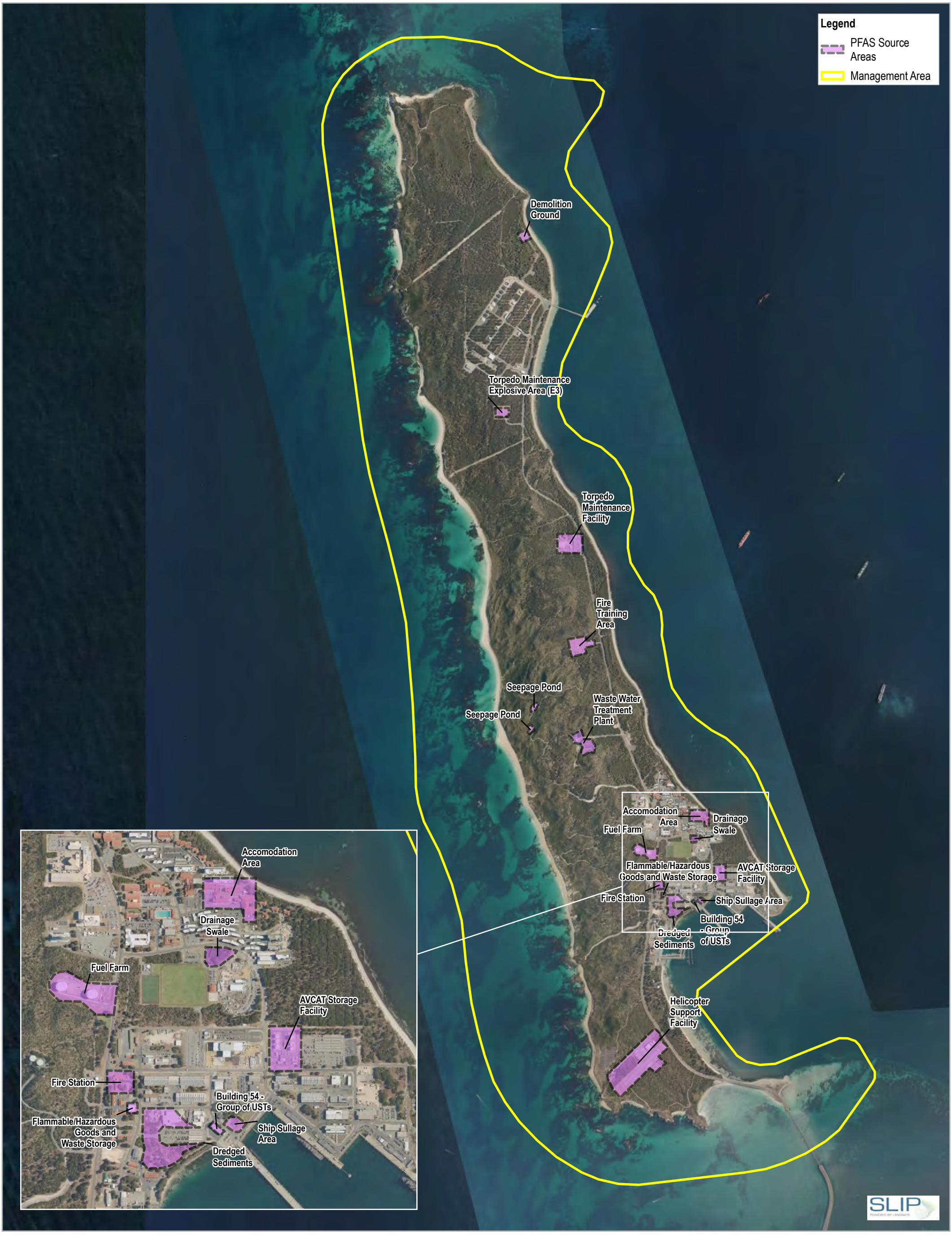

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Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

PFAS Source Areas

Project No. **12641234**
Revision No. **A**
Date **24/09/2025**

FIGURE 2

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Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

Monitoring Locations – Fire Training Area

Project No. **12641234**
Revision No. **A**
Date **24/09/2025**

FIGURE 3

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Meters

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Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

Monitoring Locations – Demolition Ground

Project No. **12641234**
Revision No. **A**
Date **24/09/2025**

FIGURE 4

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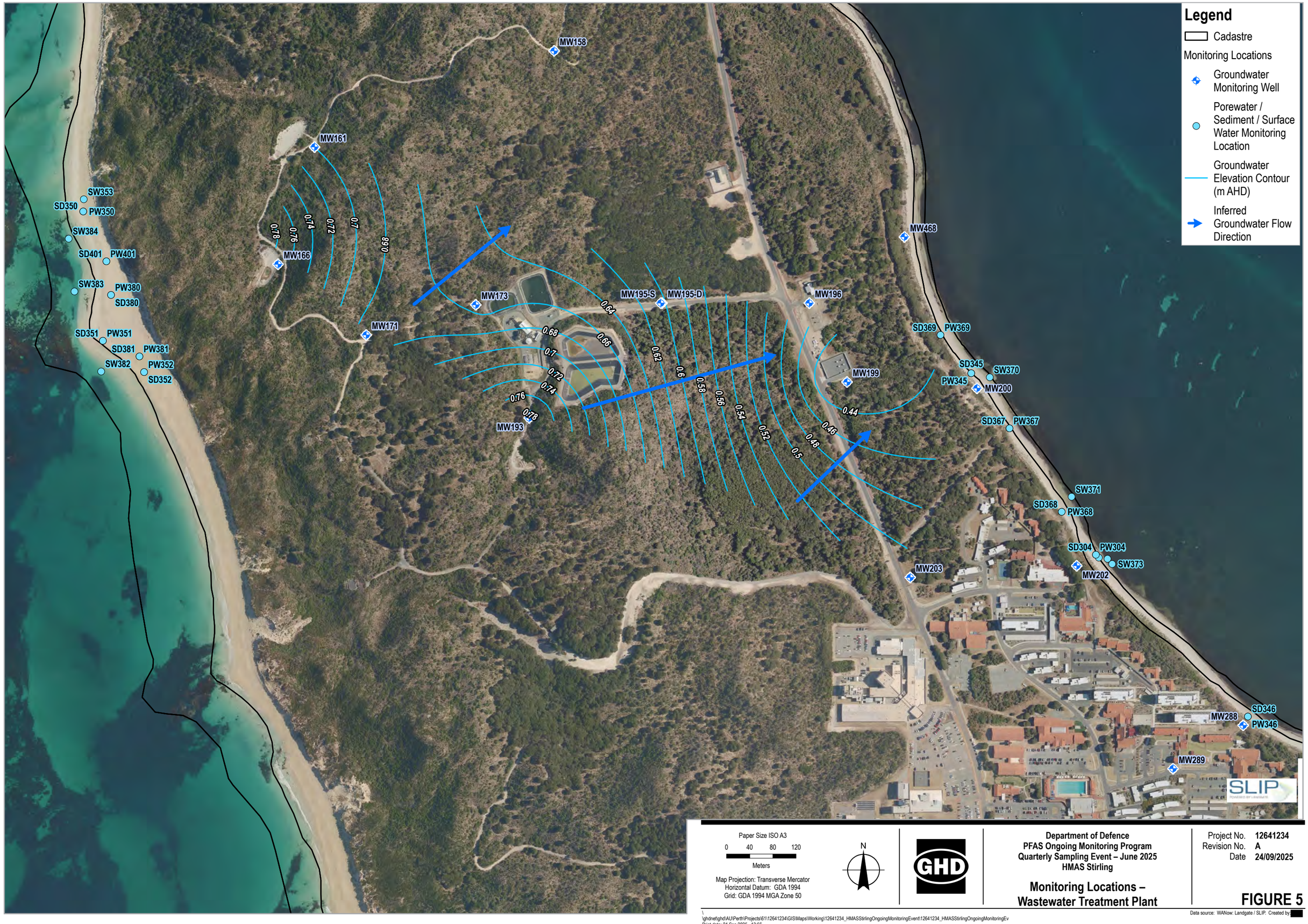

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Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

Monitoring Locations – Wastewater Treatment Plant

Project No. **12641234**
Revision No. **A**
Date **24/09/2025**

FIGURE 5

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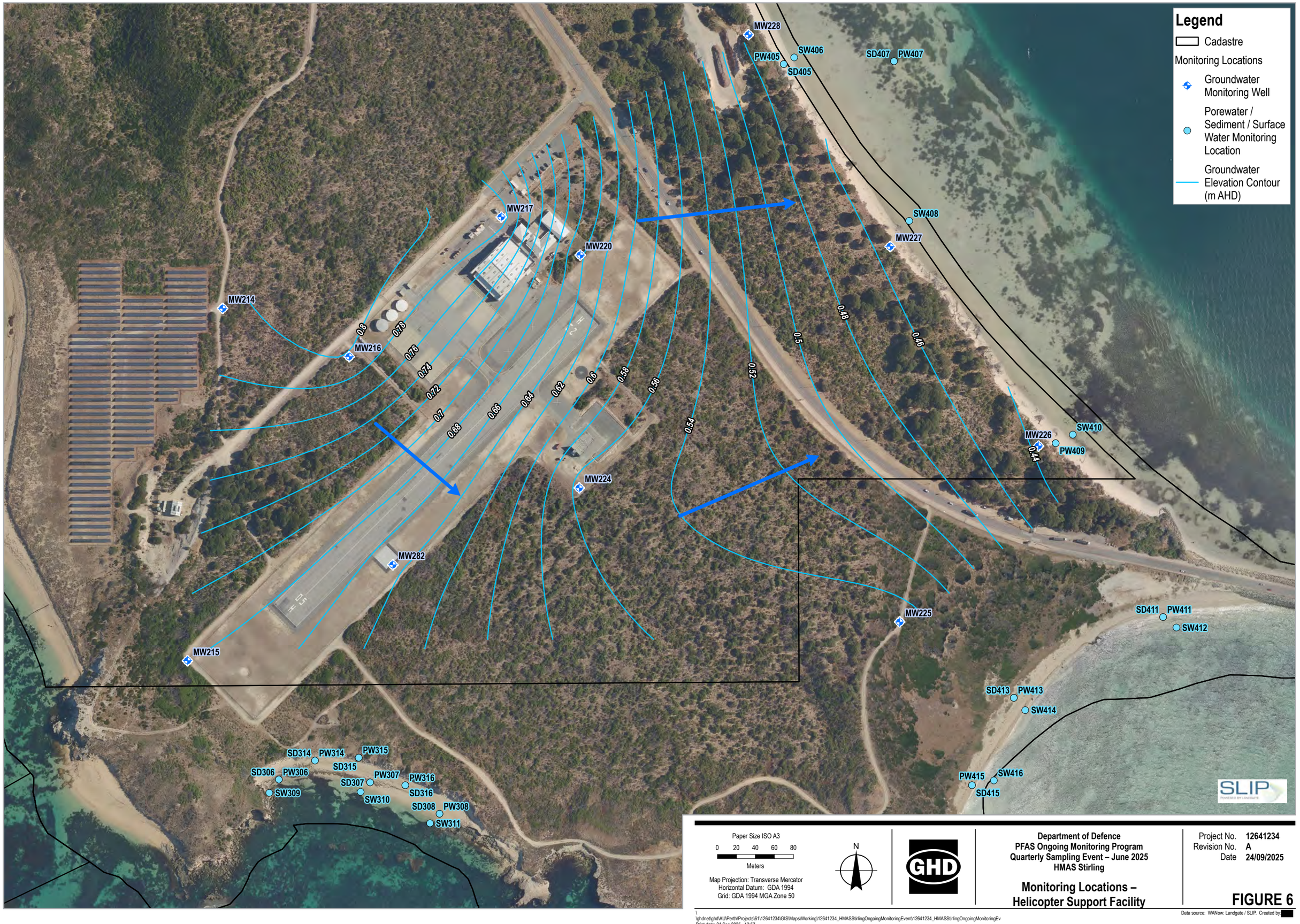

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

Monitoring Locations – Helicopter Support Facility

Project No. **12641234**
Revision No. **A**
Date **24/09/2025**

FIGURE 6

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Meters

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Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – June 2025
HMAS Stirling

Monitoring Locations – Main Base Layout

Project No. **12641234**
Revision No. **A**
Date **26/09/2025**

FIGURE 7

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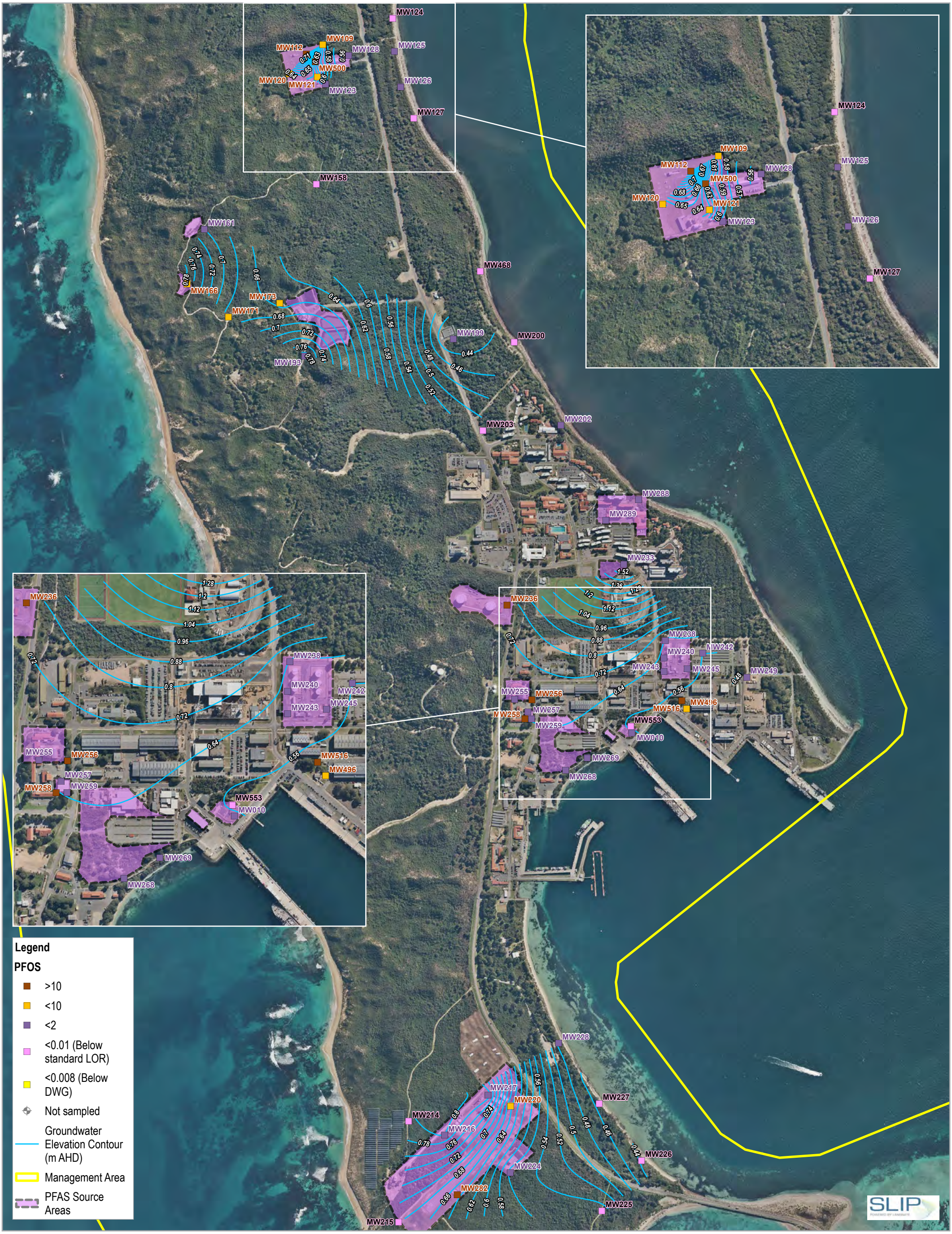

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Map Projection: Transverse Mercator
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Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

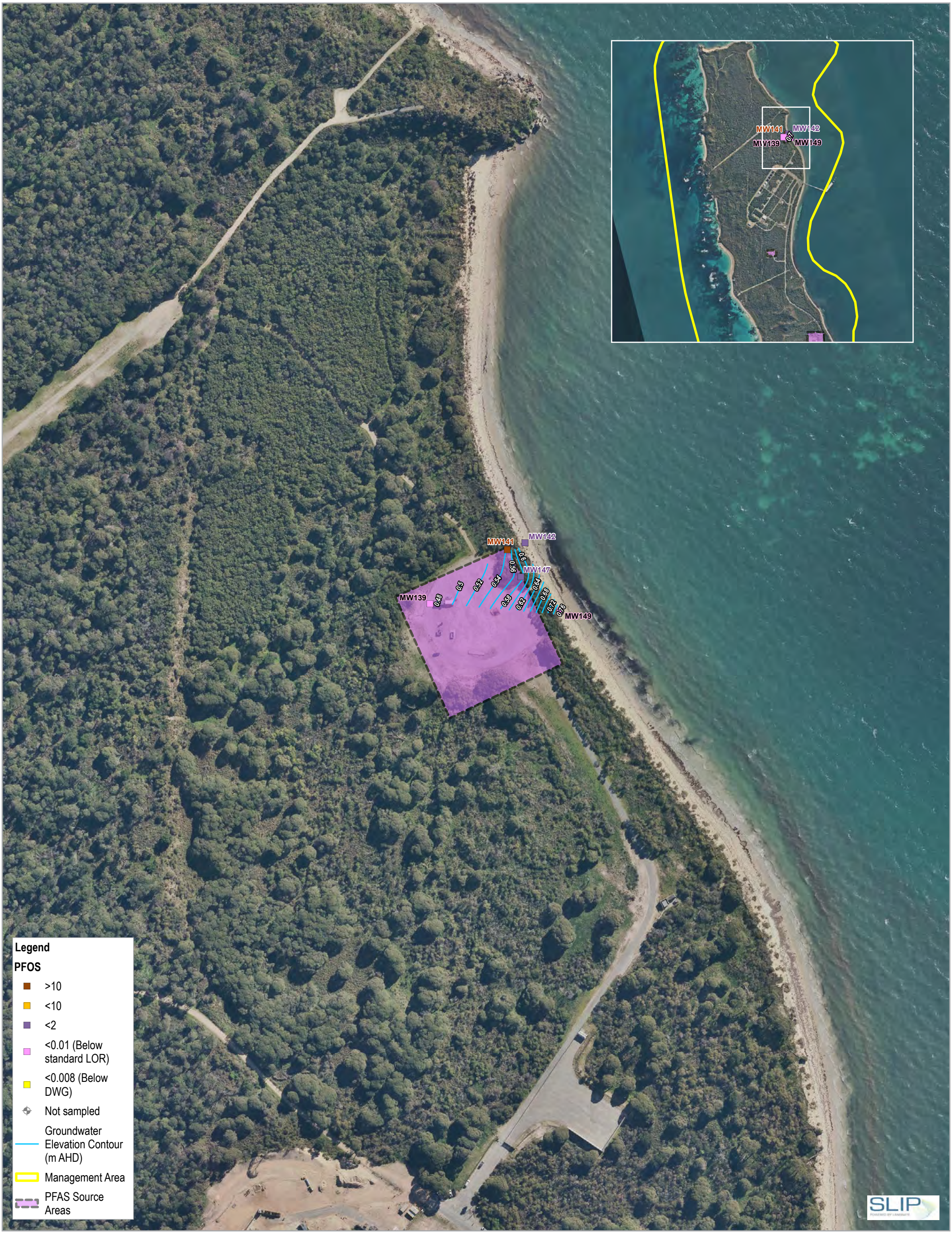
Groundwater PFOS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 8a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_010a_GroundwaterPFOS_RevA
Print date: 14 May 2026 - 13:53

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 8b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_010b_GroundwaterPFOS_RevA
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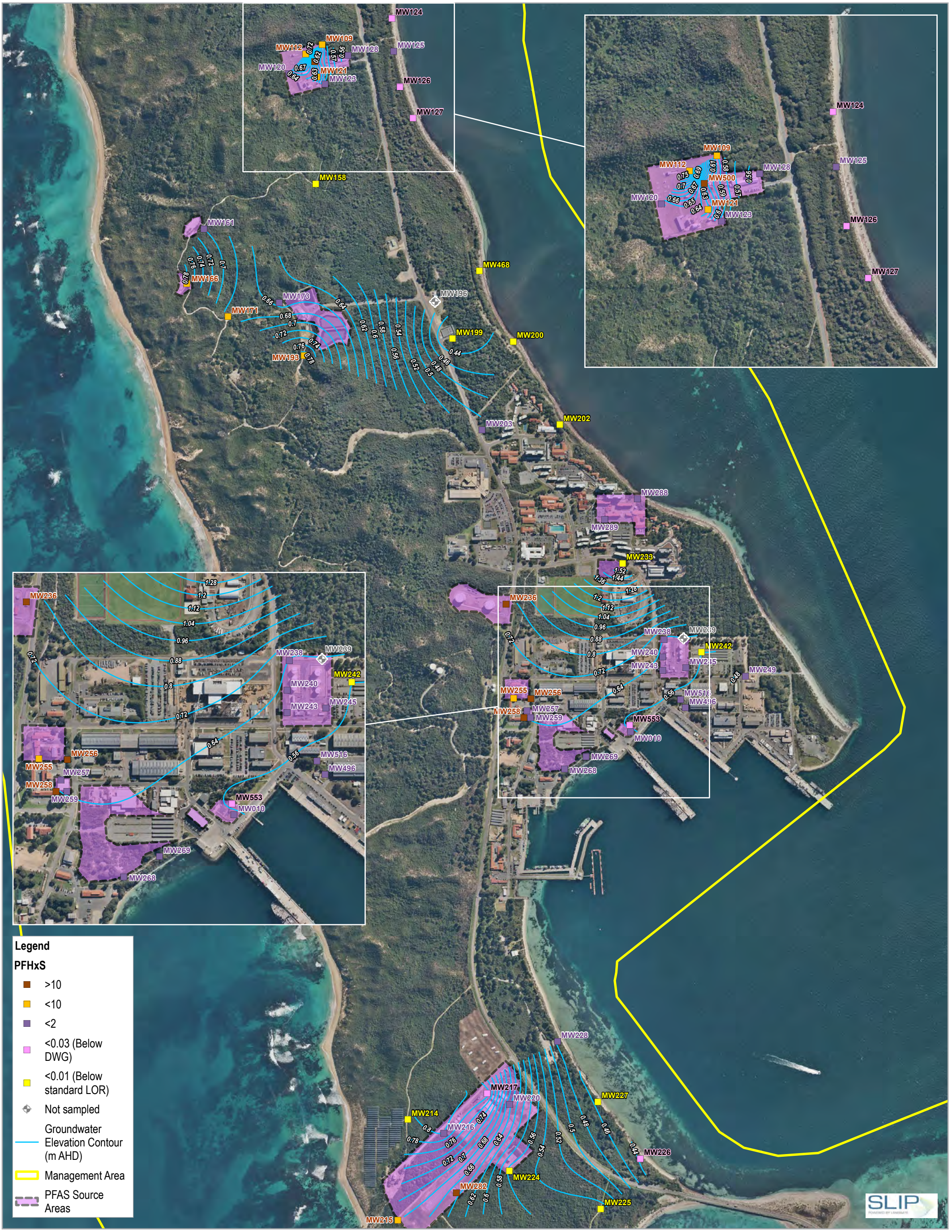

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFHxS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 9a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_014a_GroundwaterPFHxS_RevA
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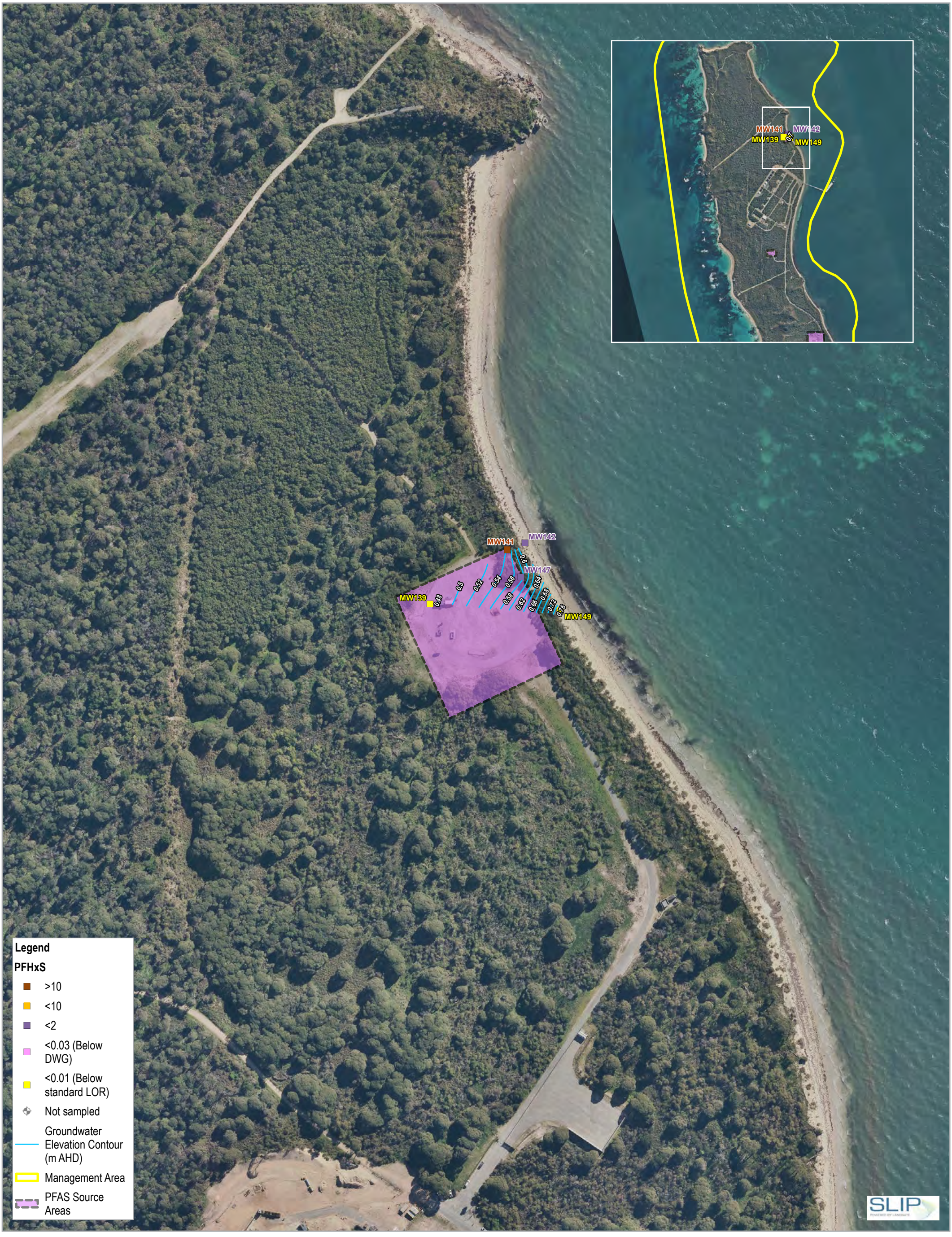

Paper Size ISO A3

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Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFHxS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 9b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_014b_GroundwaterPFHxS_RevA
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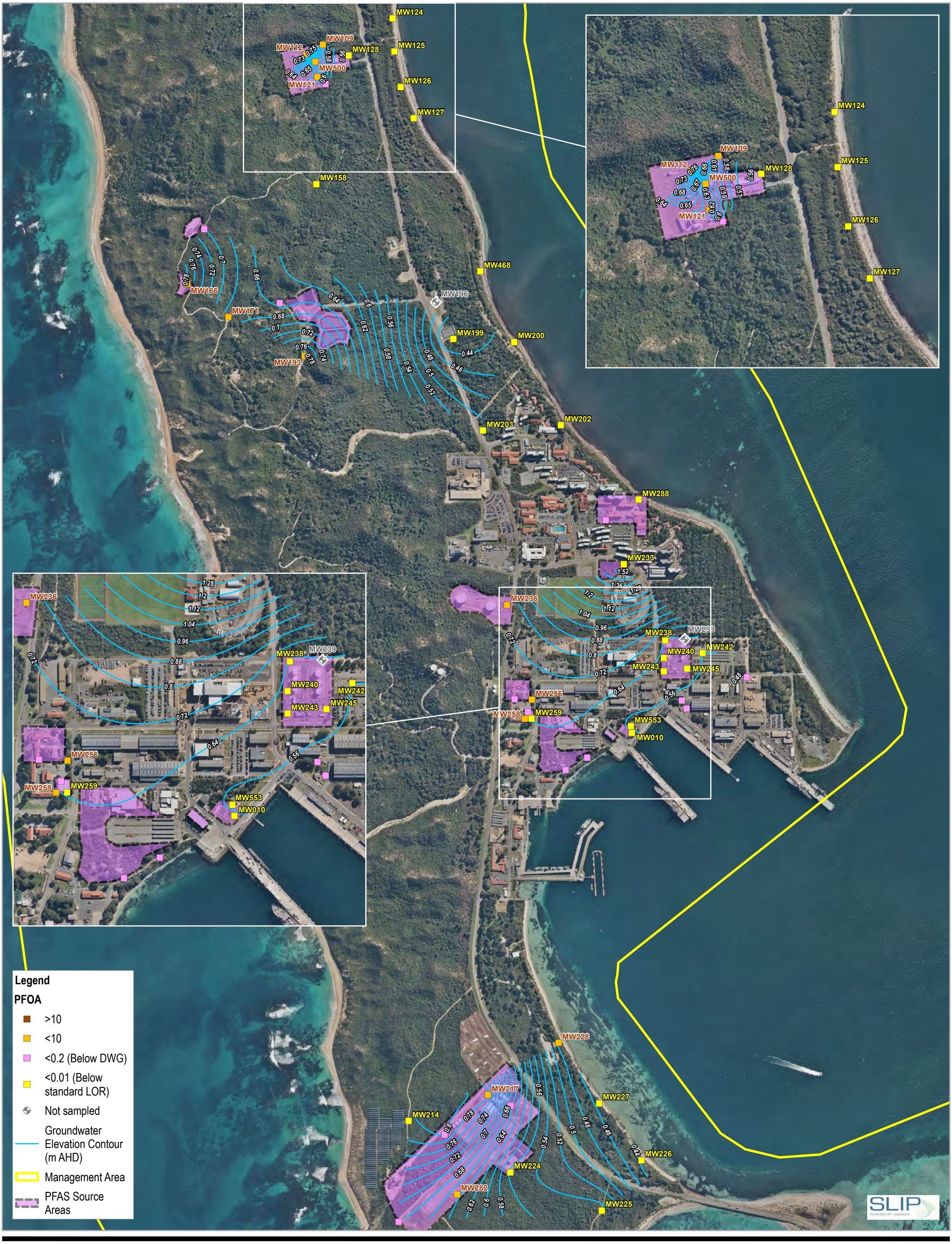

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOA Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 10a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_018a_GroundwaterPFOA_RevA
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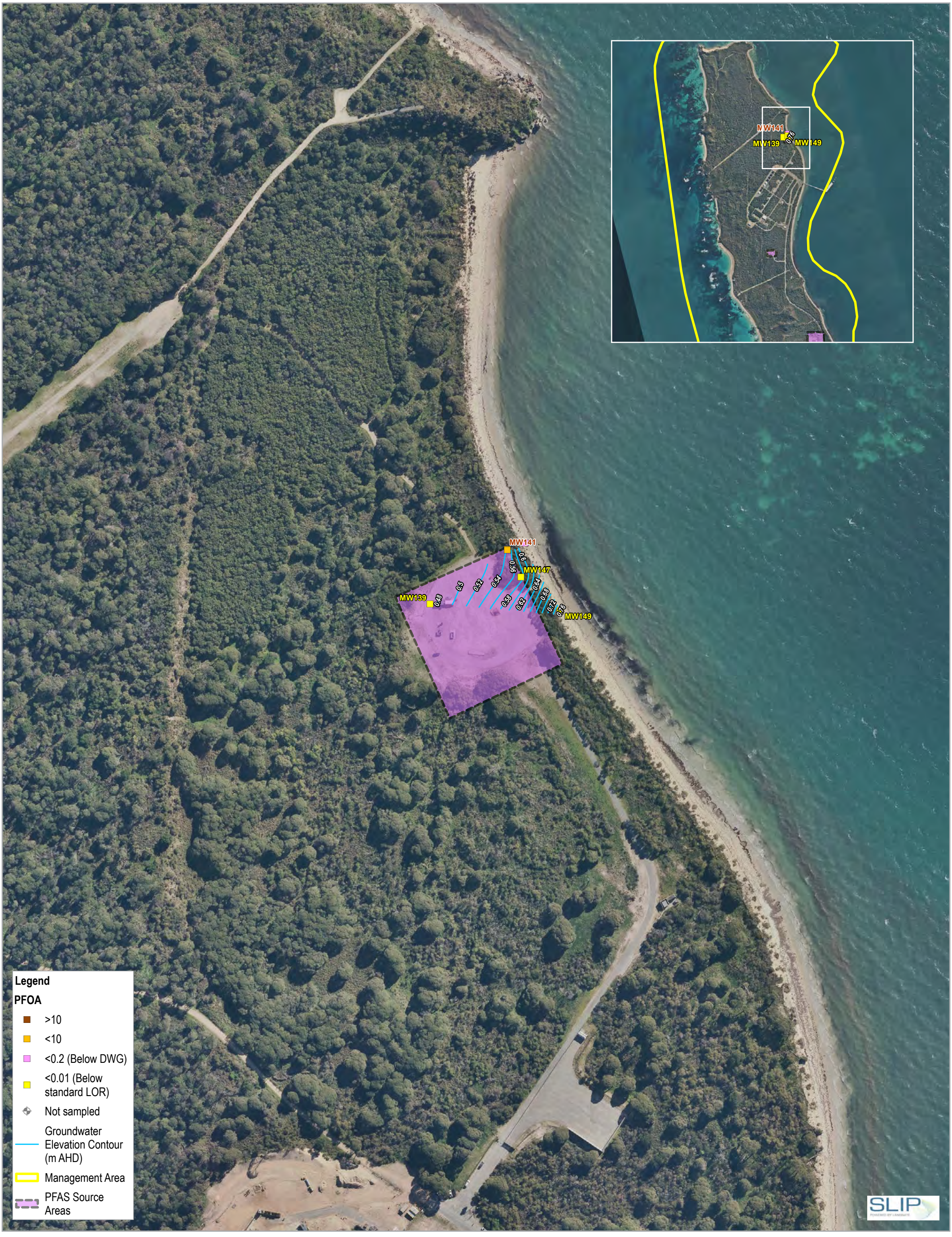

Paper Size ISO A3

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOA Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 10b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_018b_GroundwaterPFOA_RevA
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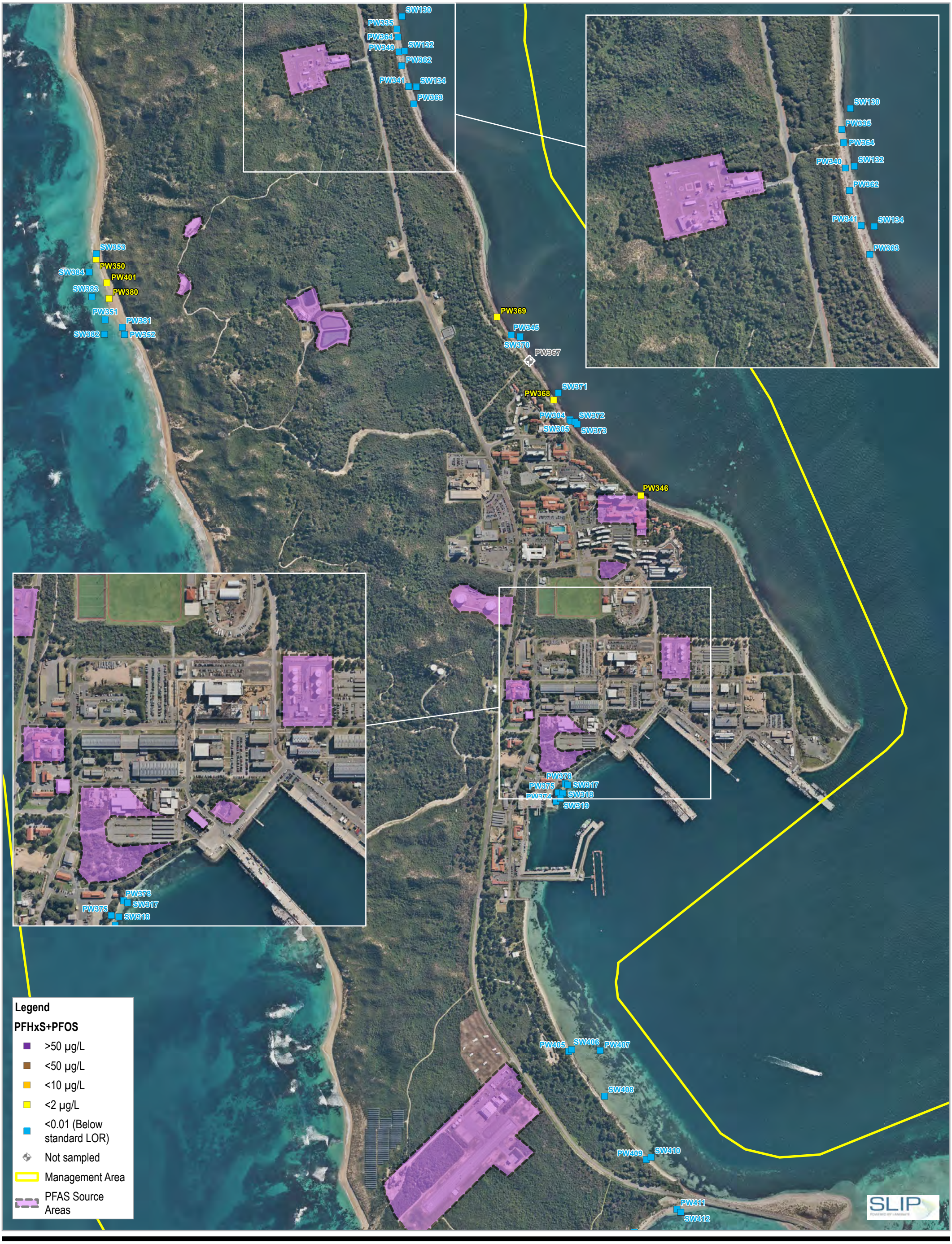

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFHxS + PFOS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 11a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_022a_SW_PW_PFHxS_PFOS_RevA
Print date: 14 May 2026 - 13:54

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

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Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFHxS + PFOS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 11b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_022b_SW_PW_PFHxS_PFOS_RevA
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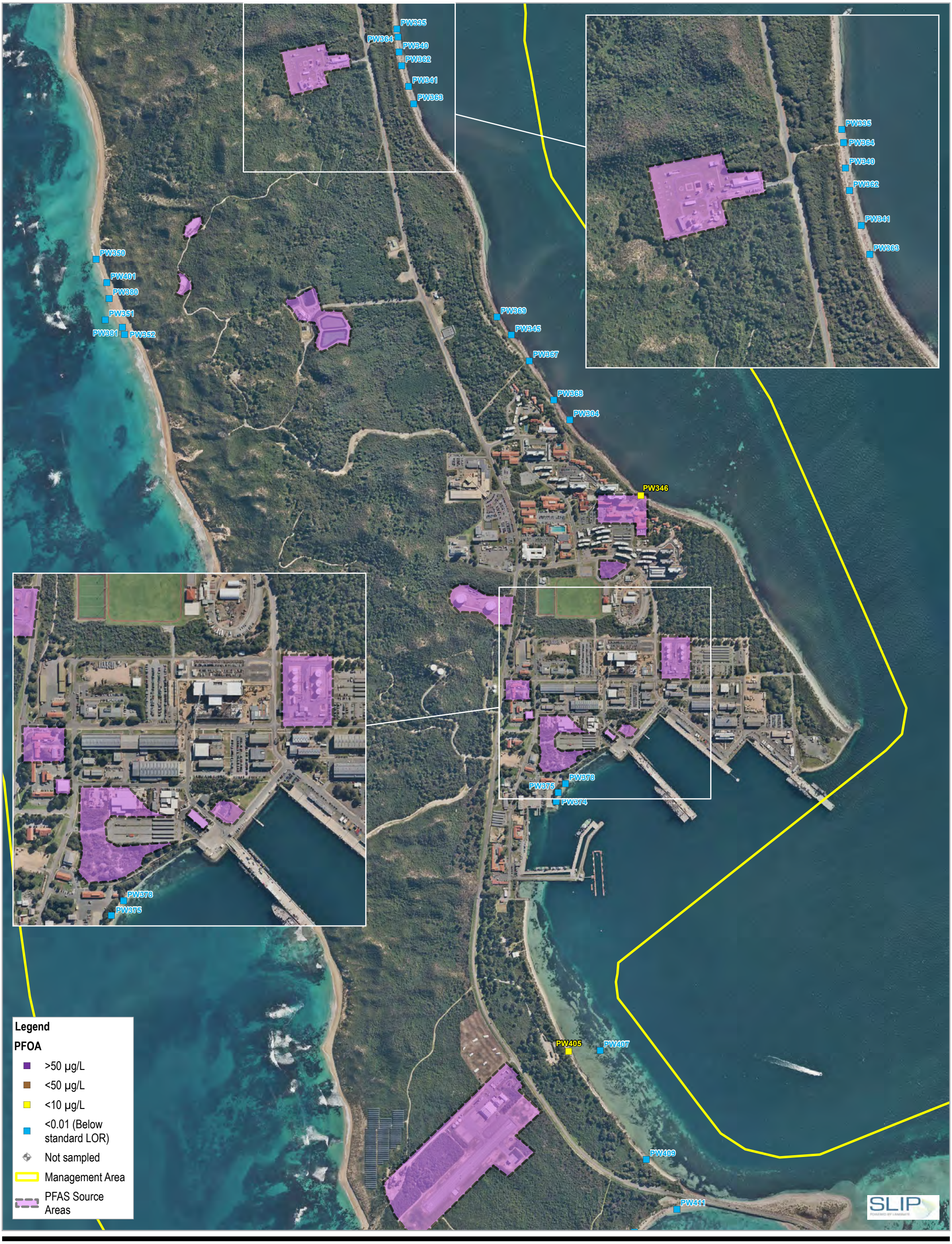

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Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFOA Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **15/05/2026**

FIGURE 12a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_026a_SW_PW_PFOA_RevA
Print date: 15 May 2026 - 15:14

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

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Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Surface Water and Pore Water PFOA Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **15/05/2026**

FIGURE 12b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_026b_SW_PW_PFOA_RevA
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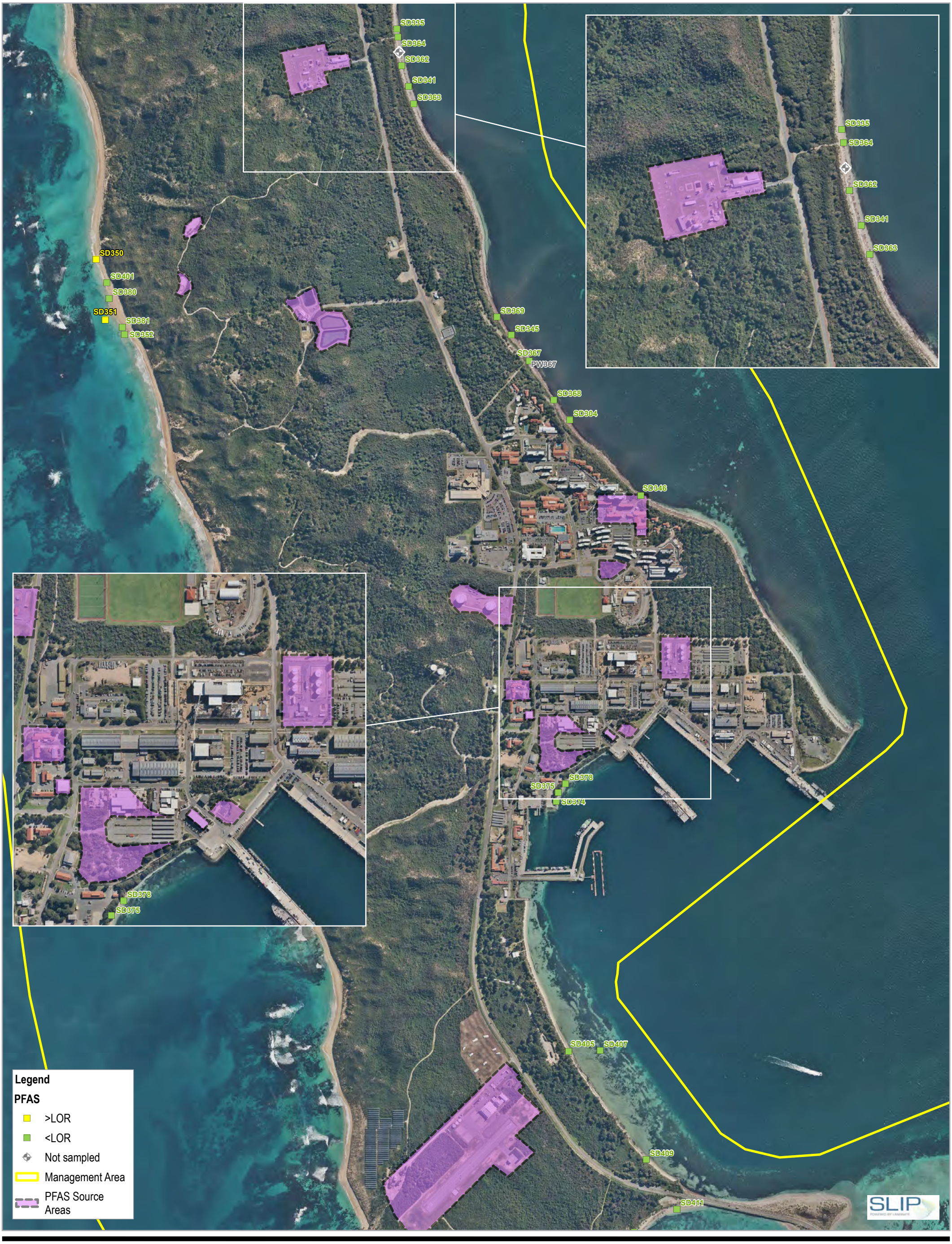

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Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Sediment PFAS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 13a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_030a_SedimentPFAS_RevA
Print date: 14 May 2026 - 13:54

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Paper Size ISO A3

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Sediment PFAS Concentrations - June 2025

Project No. **12641234**
Revision No. **A**
Date **14/05/2026**

FIGURE 13b

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSEJun25\12641234_HMASStirlingQSEJun25.aprx\12641234_HMASStirlingQSEJun25_030b_SedimentPFAS_RevA
Print date: 14 May 2026 - 13:54

Data source: WANow: Landgate / SLIP. Created by: [redacted]

Appendix B

Data validation

Appendix B

HMAS Stirling – June 2025 QA/QC Evaluation

The QA and QC procedures were undertaken in accordance with the ASC NEPM and the *Assessment and management of contaminated sites* (DWER 2021).

QA involves all the actions, procedures, checks and decisions undertaken to ensure the representativeness and integrity of samples and the accuracy and reliability of analytical results (NEPC 2013). QC involves protocols to monitor and measure the effectiveness of QA procedures.

B-1 Fieldwork Program

Field QA/QC procedures and compliance during the investigation are summarised in Table 1 below, with exceptions detailed in the following subsections.

Table 1 Summary of fieldwork QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information / data acceptable
Sampling methods	All sampling methods outlined in the HMAS Stirling OMP SAQP (GHD 2025) were adhered to.	Yes	Yes
Recording keeping	Detailed records of field activities were maintained with the use of electronic or paper field sheets and quality control sample registers.	Yes	Yes, see Appendix F
CoC documentation	The CoC documentation was completed for each batch of samples, identifying the names of the samplers, the type of sample, the collection date, the analyses to be performed, sample preservation methods, and time the samples were relinquished to the courier.	Yes	Yes, see Appendix E
Sample labelling	Samples were properly labelled, showing reference number, sample ID, date of collection, sampler name and preservation techniques.	Yes	Yes
Sample containers	Samples were collected in appropriate laboratory supplied containers with suitable preservation methods (where required).	Yes	Yes
Sample storage and transport	Samples were stored in a chilled esky immediately after sampling prior to submission to the laboratory. Samples were kept in a chilled esky during delivery with CoC documentation. Samples were received at the laboratory at the recommended temperature (4 °C).	Yes, with exceptions	Yes, see Section B-1.1.
Decontamination	Reusable field equipment (e.g. interface meter) were appropriately decontaminated using Liquinox between each sampling location.	Yes	Yes
Rinsate blanks	Rinsate samples were collected by the sampler on each day following decontamination of reusable sampling equipment. Analysis of rinsate blanks reported concentrations below laboratory LOR	Yes	Yes, see Section B-1.2.

QA/QC element	Requirement	Requirement adhered to?	Information / data acceptable
	indicating equipment was decontaminated appropriately.		
Field blanks	Field blanks were collected by the sampler on each day to estimate potential contamination of a sample during the collection procedure. Analysis of field blanks reported concentrations below laboratory LOR indicating no cross contamination occurred as a result of ambient conditions during sampling.	Yes	Yes, see Section B-1.2.
Duplicate blanks	Blind and split duplicate samples were collected for analysis by the primary and secondary laboratories, respectively (at a frequency of at least one pair per 10 primary samples). RPDs calculated for the duplicate samples were at or below 30%.	Yes, with exceptions	Yes, see Section B-1.3.

B-1.1 Sample containers, storage, and transport

All samples were collected in appropriate laboratory supplied containers with suitable preservation methods (where applicable).

To aid sample integrity, all samples were promptly placed into a chilled esky (with double bagged ice) following the completion of sampling. Eskies were delivered to the primary laboratory (ALS Environmental) and secondary laboratory (Eurofins) as soon as practicable via courier.

As summarised in Table 2, the sample receipts noted the Eurofins sample was higher than the recommended temperature (4 °C). However, the receipt also noted evidence of an attempt to keep the samples chilled and therefore it is considered that reasonable attempt to maintain the recommended sample temperature was made.

Table 2 Summary of sample receipt temperatures

Lab report number	Temperature (°C)	Earliest Sample Date	Lab Received Date	Comments
EP2509632	3.6	03/06/25	18/06/2025	“Ice present”
1233380	8.0	03/06/25	17/06/2025	“Attempt to chill was evident”

B-1.2 Quality assurance – blank samples

The groundwater QA samples collected during this sampling event were:

– **Rinsate blanks**: Rinsate blank samples are water samples collected from decontaminated, reused field equipment and were used primarily to assess whether the decontamination procedure was effective and if cross contamination has led to positive observations in subsequent samples. Rinsate samples were collected by pouring laboratory supplied rinsate water over reusable sampling equipment (e.g. interface probe) and collecting it in laboratory supplied containers. Rinsate samples were then transferred to a chilled cooler for sample preservation prior to and during transport to the testing laboratory.

– **Field blanks**: Field blank samples were used to estimate contamination of a sample during the collection procedure. Field blank samples were collected by pouring laboratory supplied rinsate water into laboratory supplied bottles onsite and sent to the laboratory for analysis along with other samples.

The blank samples collected and analysed as part of the quality assurance program are summarised in Table 3 . All analyte concentrations for the transport, field, and rinsate blanks were below the laboratory LOR. The tabulated blank sample results are shown in Table QC.1 in Attachment 1.

Table 3 Summary of rinsate, field and transport blanks

Lab report number	Sample type	Sample ID	Below LOR
EP2509632	Rinsate Blank	0089_QC300_250603	Yes
		0089_QC301_250604	
		0089_QC302_250605	
		0089_QC303_250606	
		0089_QC304_250609	
		0089_QC305_250610	
		0089_QC306_250611	
		0089_QC307_250612	
		0089_QC308_250613	
		0089_QC309_250616	
	Field Blank	0089_QC400_250603	Yes
		0089_QC401_250604	
		0089_QC402_250605	
		0089_QC403_250606	
		0089_QC404_250609	
		0089_QC405_250610	
		0089_QC406_250611	
		0089_QC407_250612	
		0089_QC408_250613	
		0089_QC409_250616	

B-1.3 Quality control – duplicate samples

The QC samples collected during the investigation were:

– **Blind duplicates**: Blind duplicate samples were used to identify the variation in the analyte concentration between samples from the same sampling point and the repeatability of the laboratory's analysis.
– **Split duplicates**: Split duplicate samples were used to provide an indication of the repeatability of the results between laboratories.

Field duplicate samples (blind and split) were collected in replicate bottles during sampling. The required analyses were performed by ALS Laboratory group (primary laboratory) and Eurofins (secondary laboratory), both of whom are NATA accredited.

B-1.3.1 Sample collection frequency

Based on the OMP (GHD 2019), one pair of duplicates (blind and split) was required to be collected and analysed per 10 primary PFAS samples. The frequency of groundwater duplicates collected for this assessment is summarised in Table 4.

Table 4 Duplicate sampling frequency summary

Matrix	Rate	Expected number of duplicate pairs	Number of blind duplicate samples collected	Number of split duplicate samples collected
Water	1 duplicate pair per 10 primary samples	13 (125 primary samples)	13	13

Matrix	Rate	Expected number of duplicate pairs	Number of blind duplicate samples collected	Number of split duplicate samples collected
Sediment	1 duplicate pair per 10 primary samples	4 (38 primary samples)	4	4

B-1.3.2 Relative percentage difference calculations

RPD calculations are used to assess how closely primary, blind duplicate and split duplicate sample results match. RPDs are a quantitative measure of the accuracy of the analytical results and are calculated in accordance with the procedure described in AS 4482.1 – 2005 (Standards Australia 2005). According to AS 4482.1 – 2005, typical RPDs are expected to range between 30% and 50%; however, this may be higher for organics and for low concentrations of analytes.

RPD results were considered acceptable if they were less than or equal to 30%. The only exception to this was when concentrations within the primary and blind or split sample were less than ten times the laboratory LOR. In this case, a greater RPD value is considered acceptable.

Where a result is reported below the laboratory LOR for one of the paired samples, the sample was assigned a concentration equal to the LOR for RPD calculation purposes. This is based on the consideration that the chemical may be present at a concentration just below the laboratory LOR or not present at all (i.e. the concentration is zero). Where both results are reported below laboratory LOR, the RPD is not calculated.

Water RPDs

For the water monitoring (including groundwater, surface water and potable water), a total of 990 RPDs were calculated, and 38 RPDs (i.e., 3.83%) exceeded the adopted (conservative) 30% RPD acceptable limit, where the primary and/or duplicate sample concentrations were greater than ten times the laboratory LOR. 879 RPDs were expressed as zero as both the primary and duplicate/split sample concentrations were less than the laboratory LOR. A summary of these exceedances is detailed in Table 5 and full calculations are provided in the attached Table QC.2.

The RPD values greater than the adopted threshold of 30% (where the primary and/or duplicate sample concentrations were greater than 10 times the applied LOR) are considered to have limited impact on the overall data quality given the low proportion of outliers relative to the wider dataset and noting that in these cases, the reported concentrations were within generally the same order of magnitude.

Table 5 Summary of water RPD exceedances

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Concentrations within 10 x LOR?
0089_MW269_250603 / 0089_QC201_250603	Perfluorobutane sulfonic acid (PFBS)	33%	0.05 µg/L	0.07 µg/L	Yes
	Perfluorooctane sulfonic acid (PFOS)	34%	0.36 µg/L	0.51 µg/L	No
	Perfluoropentane sulfonic acid (PFPeS)	33%	0.05 µg/L	0.07 µg/L	Yes
	Perfluorohexane sulfonic acid (PFHxS)	32%	0.52 µg/L	0.72 µg/L	No
	PFAS (Sum of Total)	34%	1.12 µg/L	1.58 µg/L	No
	PFAS (Sum of Total)(WA DER List	32%	1.07 µg/L	1.48 µg/L	No
	Sum of PFHxS and PFOS	33%	0.88 µg/L	1.23 µg/L	No
0089_MW010_250603 /	Perfluorohexane sulfonic acid (PFHxS)	33%	0.05 µg/L	0.07 µg/L	Yes

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Concentrations within 10 x LOR?
0089_QC200_250603	PFAS (Sum of Total)(WA DER List)	46%	0.05 µg/L	0.08 µg/L	Yes
	Sum of PFHxS and PFOS	46%	0.05 µg/L	0.08 µg/L	Yes
0089_MW288_250604 / 0089_QC103_250604	Perfluorooctane sulfonic acid (PFOS)	51%	0.16 µg/L	0.27 µg/L	No
	Perfluorohexane sulfonic acid (PFHxS)	133%	0.05 µg/L	0.25 µg/L	No
	PFAS (Sum of Total)	85%	0.21 µg/L	0.52 µg/L	No
	PFAS (Sum of Total)(WA DER List)	85%	0.21 µg/L	0.52 µg/L	No
	Sum of PFHxS and PFOS	85%	0.21 µg/L	0.52 µg/L	No
0089_MW288_250604 / 0089_QC203_250604	Perfluorooctane sulfonic acid (PFOS)	84%	0.16 µg/L	0.39 µg/L	No
	Perfluorohexane sulfonic acid (PFHxS)	146%	0.05 µg/L	0.32 µg/L	No
	PFAS (Sum of Total)	115%	0.21 µg/L	0.78 µg/L	No
	PFAS (Sum of Total)(WA DER List)	112%	0.21 µg/L	0.74 µg/L	No
	Sum of PFHxS and PFOS	109%	0.21 µg/L	0.71 µg/L	No
0089_MW249_250604 / 0089_QC202_250604	Perfluorooctane sulfonic acid (PFOS)	190%	0.02 µg/L	0.77 µg/L	No
	Perfluorohexanoic acid (PFHxA)	67%	0.02 µg/L	0.04 µg/L	Yes
	6:2 Fluorotelomer Sulfonate (6:2 FTS)	183%	<0.05 µg/L	1.1 µg/L	No
	PFAS (Sum of Total)	169%	0.18 µg/L	2.15 µg/L	No
	PFAS (Sum of Total)(WA DER List)	169%	0.18 µg/L	2.13 µg/L	No
	Sum of PFHxS and PFOS	143%	0.16 µg/L	0.96 µg/L	No
0089_MW282_250605 / 0089_QC104_250605	Perfluorooctane sulfonic acid (PFOS)	45%	73.0 µg/L	46.5 µg/L	No
	Perfluoropentane sulfonic acid (PFPeS)	66%	4.59 µg/L	9.11 µg/L	No
	Perfluorohexanoic acid (PFHxA)	37%	9.21 µg/L	13.4 µg/L	No
	Perfluorononanoic acid (PFNA)	40%	<0.02 µg/L	0.03 µg/L	Yes
0089_MW282_250605 / 0089_QC204_250605	Perfluoropentane sulfonic acid (PFPeS)	39%	4.59 µg/L	6.8 µg/L	No
0089_MW120_250606 / 0089_QC205_250606	Perfluorobutane sulfonic acid (PFBS)	40%	<0.02 µg/L	0.03 µg/L	Yes
	Perfluoroheptane sulfonic acid (PFHpS)	36%	0.37 µg/L	0.53 µg/L	No
0089_MW121_250606 / 0089_QC206_250609	Perfluorobutane sulfonic acid (PFBS)	188%	0.08 µg/L	2.5 µg/L	No
	Perfluoroheptane sulfonic acid (PFHpS)	158%	0.13 µg/L	1.1 µg/L	No

Primary & Duplicate Field IDs (Type)	Analyte	RPD	Primary Concentration	Duplicate Concentration	Concentrations within 10 x LOR?
	Perfluorooctane sulfonic acid (PFOS)	89%	9.08 µg/L	3.5 µg/L	No
	Perfluoropropanesulfonic acid (PFPrS)	196%	<0.02 µg/L	1.8 µg/L	No
	Perfluoropentane sulfonic acid (PFPeS)	168%	0.13 µg/L	1.5 µg/L	No
	Perfluorohexane sulfonic acid (PFHxS)	129%	1.99 µg/L	9.2 µg/L	No
	Perfluorobutanoic acid (PFBA)	164%	<0.1 µg/L	1.0 µg/L	No
	Perfluoroheptanoic acid (PFHpA)	88%	0.12 µg/L	0.31 µg/L	No
	Perfluorohexanoic acid (PFHxA)	159%	0.34 µg/L	3.0 µg/L	No
	Perfluorooctanoic acid (PFOA)	132%	0.12 µg/L	0.59 µg/L	No
	Perfluoropentanoic acid (PFPeA)	135%	0.16 µg/L	0.83 µg/L	No
	PFAS (Sum of Total)	70%	12.2 µg/L	25.33 µg/L	No
	PFAS (Sum of Total)(WA DER List)	55%	11.9 µg/L	20.93 µg/L	No

Sediment RPDs

For the sediment monitoring, a total 261 RPDs were calculated, and none exceeded the adopted (conservative) 30% RPD acceptable limit. All RPDs were expressed as zero as both the primary and duplicate/split sample concentrations were less than the laboratory LOR. The full calculations are provided in the attached Table QC.3.

B-2 Laboratory program

Laboratory QA/QC procedures and compliance during the investigation are summarised in Table 7, with exceptions detailed in the following subsections.

Table 6 Summary of laboratory QA/QC compliance

QA/QC element	Requirement	Requirement adhered to?	Information/ data acceptable?
NATA accreditation	Analysis of CoPC performed under NATA accreditation or equivalent government endorsed provider of accreditation.	Yes	Yes
Holding times	Laboratory to complete sample extraction and analysis of CoPC within method specifications.	Yes, with exceptions	Yes, see Section B-2.4.
Analytical methods	Sample analyses are to use appropriate methods for each CoPC with regard to Schedule B (3) of the *ASC NEPM* and in accordance with the laboratory's NATA accreditation.	Yes	Yes
Laboratory LORs	Laboratory LORs are below adopted assessment criteria.	Yes, per agreed SAQP	Yes
Laboratory QC results	No method blank, laboratory duplicates, laboratory controls, matrix spike or surrogate spike recovery outliers were identified. Sufficient quantities of laboratory QC analysis was undertaken.	Yes, with exceptions	Yes, see Section B-2.3.

B-2.1 Laboratory quality control procedures

Laboratory QC samples incorporated in the analytical process included:

- **Laboratory blind duplicates**: A laboratory blind duplicate provides data on the analytical precision and reproducibility of the analytical result. The laboratory blind duplicate is created by subsampling from one of the primary samples submitted for analysis. Laboratory blind duplicates are analysed at a rate equivalent to one in ten per analytical batch, or one sample per batch if less than 10 samples are analysed in a batch.
- **LCS:** The LCS analysis of either a reference material or a control matrix fortified with analytes representative of the analyte class. The purpose of LCS is to monitor method precision and accuracy independent of the sample matrix. Typically, the percentage recovery of the LCS is compared to the dynamic recovery limit based on the statistical analysis of the processed LCS analysis.
- **Matrix spikes**: Matrix spike sample analysis is the analysis of one or more replicate portions of samples from the batch, after fortifying the additional portion(s) with known quantities of the analyte(s) of interest. The percentage recovery of target analyte(s) from matrix spike samples is used to determine the bias of the method in the specific sample matrix.
- **Surrogate spikes**: Surrogate spikes provide a means of checking that no gross errors have occurred during any stage of the analytical method leading to significant analyte loss. Surrogate recoveries are similar to the analyte of interest in terms of chemical composition, extractability, and chromatographic conditions (retention time), but which are not normally found in environmental samples. Surrogate compounds are spiked into blanks, standards and samples submitted for organic analyses by gas-chromatographic techniques prior to sample extraction.
- **Method blanks**: Method or analysis blank sample analysis is the analysis of a sample that is as free as possible of the analytes of interest but has been prepared the same as the samples under investigation. The analysis is to ascertain if laboratory reagents, glassware and other laboratory consumables contribute to the observed concentration of analytes in the process batch. If below the maximum acceptable method blank (20% of the practical quantisation limit), the contribution is subtracted from the gross analytical signal for each analysis before calculating the sample analyte concentration. The method blank should return analyte concentrations as ‘not detected’.

B-2.2 Laboratory quality control results

Laboratory quality control results were compared against criteria set by ALS Environmental and Eurofins, which are largely based on the *ASC NEPM* and US EPA (2006) methods. The individual testing laboratories conducted an assessment of the laboratory QC program internally; however, the results were also independently reviewed and assessed by GHD. All laboratory quality control measures were within the adopted acceptance criteria with the exception of those described in the subsections below.

The exceptions were limited and comprised a very small proportion of the large number of quality control measures completed for the investigation. Based on this, the exceptions described in the subsections below are not considered to significantly influence data quality.

B-2.3 QC sample frequency – outliers

All laboratory QC samples were tested within the expected frequency, No quality control sample frequency outliers exist.

B-2.3.1 Matrix spike – outliers

All matrix spikes were of an acceptable recovery except for those summarised in Table 8. These outliers only represent a small portion of the internal lab QC program conducted. Therefore, these minor non-compliances are not considered to have materially affected the conclusions of this report.

Table 7 Matrix spike outliers

Lab report	Sample ID	Analyte	Data	Limits	Comment
EP2509632	0089_MW128_250606	PFOS	-	-	MS recovery not determined, background level greater than or equal to 4x spike level
	0089_MW125_250606	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	197%	67.0 – 138%	Recovery greater than upper data quality objective
	0089_MW125_250606	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	136%	70.0 – 130%	Recovery greater than upper data quality objective

B-2.3.2 Laboratory control spike – outliers

All laboratory control spike outliers were of an acceptable recovery except for the one summarised in Table 9. This outlier only represents a small portion of the internal lab QC program conducted. Therefore, this minor non-compliance is not considered to have materially affected the conclusions of the report.

Table 8 Laboratory control spike outliers

Lab report	Sample ID	Analyte	Data	Limits	Comment
EP2509632	QC-6662606-002	8:2 FTS	144%	67 – 138%	Recovery greater than upper control limit

B-2.3.3 Surrogate recovery – outliers

All laboratory surrogates were an acceptable recovery

B-2.3.4 Duplicate – outliers

Samples were analysed and received acceptable RPDs

B-2.4 Holding time – outliers

Samples were analysed within appropriate holding times, No holding time outliers exist.

B-3 Data quality indicator evaluation

An evaluation of the DQIs set for this assessment was undertaken subsequent to field works and laboratory analysis, this evaluation is presented in Table 10.

Table 9 Data quality indicator evaluation

DQI	Evaluation criteria	Acceptable?
Completeness	All locations that were proposed to be sampled were sampled where possible. Samples were analysed according to the OMP SAQP (GHD, 2025).	Yes
	All field documentation is complete and correct, including chain of custody documentation for samples.	Yes
	Field forms and documentation capture all relevant important information.	Yes
	Samples were analysed within appropriate holding times.	Yes
	Appropriate laboratory limits of reporting for comparison to relevant assessment criteria.	Yes

DQI	Evaluation criteria	Acceptable?
Comparability	Standardised operating procedure for groundwater sampling was adhered to and is in line with relevant guidelines.	Yes
	Field staff were experienced in the sampling of groundwater and were appropriately trained.	Yes
	Consistent laboratory use with consistent analytical methods used.	Yes
	Climatic conditions consistent and considered representative of region.	Yes
Representativeness	Samples were collected in a uniform and consistent manner, therefore representative of the media in the field.	Yes
Precision	Sufficient quantities of field blind and split duplicates were collected to enable comparison within and between laboratories.	Yes
	Sufficient quantities of internal laboratory duplicates were analysed to enable comparison within laboratories.	Yes
	Relative percentage difference calculations show that a large majority of duplicate sample concentrations are within defined difference limits.	Yes
	Field equipment was calibrated by equipment supplier (Appendix D).	Yes
Accuracy	Sufficient quantities of field blanks, rinsate blanks and transport blanks were collected and analysed, with no results indicating cross contamination.	Yes
	Sufficient quantities of internal laboratory method blanks, surrogate spikes and laboratory control samples were analysed to determine laboratory accuracy, with the large majority of samples within defined limits.	Yes

Based on the results of the evaluation of the QA/QC data described in the previous sections, the reported QA/QC non-compliances are not considered likely to significantly influence the reliability of the analytical data. It is further considered that:

– The field and laboratory quality assurance measures implemented provide a reasonable level of confidence that the data collected and reported is appropriately complete, comparable and representative.
– The field and laboratory quality control measures implemented provide a reasonable level of confidence that the data collected and reported is appropriately accurate and precise.
– The overall review of the QA/QC results indicates that the data collected for the investigation is of acceptable quality upon which to provide an adequate and reliable assessment of the property.

Appendix B
Table QC.1
Blank Analytical Results

	Sample Type		Field Blank									
	Field ID		0089_QC400_250603	0089_QC401_250604	0089_QC402_250605	0089_QC403_250606	0089_QC404_250609	0089_QC405_250610	0089_QC406_250611	0089_QC407_250612	0089_QC408_250613	0089_QC409_250616
	Date		04 Jun 2025	04 Jun 2025	05 Jun 2025	06 Jun 2025	09 Jun 2025	10 Jun 2025	11 Jun 2025	12 Jun 2025	13 Jun 2025	16 Jun 2025
	Lab Report Number		EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**										
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide												
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids												
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums												
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

			Sample Type	Rinsate								
			Field ID	0089_QC300_250603	0089_QC301_250604	0089_QC302_250605	0089_QC303_250606	0089_QC304_250609	0089_QC305_250610	0089_QC306_250611	0089_QC307_250612	0089_QC308_250613	0089_QC309_250616
			Date	03 Jun 2025	04 Jun 2025	05 Jun 2025	06 Jun 2025	09 Jun 2025	10 Jun 2025	11 Jun 2025	12 Jun 2025	13 Jun 2025	16 Jun 2025
			Lab Report Number	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**											
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

	Location Code		0089_MW269	0089_MW269		0089_MW269	0089_MW269		0089_MW010	0089_MW010		0089_MW010	0089_MW010		0089_MW288	0089_MW288		0089_MW288	0089_MW288		0089_MW249	0089_MW249		0089_MW249	0089_MW249	
	Date		03 Jun 2025	03 Jun 2025		03 Jun 2025	03 Jun 2025		03 Jun 2025	04 Jun 2025		03 Jun 2025	03 Jun 2025		04 Jun 2025	04 Jun 2025		04 Jun 2025	04 Jun 2025		04 Jun 2025	04 Jun 2025		04 Jun 2025	04 Jun 2025	
	Field ID		0089_MW269_250603	0089_QC101_2 50603	RPD (%)	0089_MW269_250603	0089_QC201_2 50603	RPD (%)	0089_MW010_250603	0089_QC100_2 50603	RPD (%)	0089_MW010_250603	0089_QC200_2 50603	RPD (%)	0089_MW288_250604	0089_QC103_2 50604	RPD (%)	0089_MW288_250604	0089_QC203_2 50604	RPD (%)	0089_MW249_250604	0089_QC102_2 50604	RPD (%)	0089_MW249_250604	0089_QC202_2 50604	RPD (%)
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																								
PFAS - Perfluoroalkyl Sulfonic Acids																										
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.05	0.04	22	0.05	0.07	**33**	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.01	0	<0.02	<0.02	0	<0.02	0.02	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	0.01#1	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.36	0.35	3	0.36	0.51#1	**34**	<0.01	0.01	0	<0.01	0.01#1	0	0.16	0.27	**51**	0.16	0.39	**84**	0.02	0.02	0	0.02	0.77#1	**190**
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	0.02	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.05	0.05	0	0.05	0.07#1	**33**	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.02	0	<0.02	<0.02	0	<0.02	0.02#1	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.52	0.51	2	0.52	0.72#1	**32**	0.05	0.05	0	0.05	0.07#1	**33**	0.05	0.25	**133**	0.05	0.32	**146**	0.14	0.13	7	0.14	0.19#1	30
PFAS - Perfluoroalkyl Carboxylic Acids																										
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.09	0.09	0	0.09	0.12	29	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.02	0	0.02	0.02	0	0.02	0.04	**67**
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.02	0.02	0	0.02	0.02#1	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	0.01#1	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	0.03	0.03	0	0.03	0.04	29	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																										
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																										
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	1.1	**183**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																										
PFAS (Sum of Total)	µg/L	0.01	1.12	1.09	3	1.12	1.58	**34**	0.05	0.06	18	0.05	<0.1	0	0.21	0.52	**85**	0.21	0.78	**115**	0.18	0.17	6	0.18	2.15	**169**
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	1.07	1.04	3	1.07	1.48	**32**	0.05	0.06	18	0.05	0.08	**46**	0.21	0.52	**85**	0.21	0.74	**112**	0.18	0.17	6	0.18	2.13	**169**
Sum of PFHxS and PFOS	µg/L	0.01	0.88	0.86	2	0.88	1.23	**33**	0.05	0.06	18	0.05	0.08	**46**	0.21	0.52	**85**	0.21	0.71	**109**	0.16	0.15	6	0.16	0.96	**143**

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
#2 Reported Analyte LOR is higher than Requested Analyte LOR
#3 The LORs have been raised due to matrix interference

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**
*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

	Location Code		0089_MW282	0089_MW282		0089_MW282	0089_MW282		0089_MW120	0089_MW120		0089_MW120	0089_MW120		0089_MW121	0089_MW121		0089_MW171	0089_MW171		0089_MW139	0089_MW139		0089_MW139	0089_MW139	
	Date		05 Jun 2025	05 Jun 2025		05 Jun 2025	16 Jun 2025		06 Jun 2025	06 Jun 2025		06 Jun 2025	06 Jun 2025		06 Jun 2025	09 Jun 2025		09 Jun 2025	09 Jun 2025		11 Jun 2025	11 Jun 2025		11 Jun 2025	11 Jun 2025	
	Field ID		0089_MW282_250605	0089_QC104_2 50605	RPD (%)	0089_MW282_250605	0089_QC204_2 50605	RPD (%)	0089_MW120_250606	0089_QC105_2 50606	RPD (%)	0089_MW120_250606	0089_QC205_2 50606	RPD (%)	0089_MW121_250606	0089_QC206_2 50609	RPD (%)	0089_MW171_250609	0089_QC106_2 50609	RPD (%)	0089_MW139_250611	0089_QC107_2 50611	RPD (%)	0089_MW139_250611	0089_QC207_2 50611	RPD (%)
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	1233380		EP2509632	EP2509632		EP2509632	EP2509632		EP2509632	1233380	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																								
PFAS - Perfluoroalkyl Sulfonic Acids																										
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	2.43	2.9	18	2.43	3.2	27	<0.02	<0.02	0	<0.02	0.03	**40**	0.08	2.5	**188**	1.61	1.55	4	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.04 #2	<0.04 #2	0	<0.04 #2	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	0.02	<0.01	67	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	5.77	6.41	11	5.77	5.2 #1	10	0.37	0.4	8	0.37	0.53	**36**	0.13	1.1	**158**	1.04	0.94	10	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	73	46.4	**45**	73	63 #1	15	3.34	3.53	6	3.34	4.3	25	9.08	3.5	**89**	2.65	2.73	3	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	0.58	0.71	20	0.58	0.74	24	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	1.8	**196**	0.96	1.12	15	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	4.59	9.11	**66**	4.59	6.8 #1	**39**	0.04	0.04	0	0.04	0.05	22	0.13	1.5	**168**	1.21	1.02	17	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	55.1	59.4	8	55.1	67 #1	19	1.25	1.3	4	1.25	1.5	18	1.99	9.2	**129**	6.95	7.26	4	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																										
Perfluorobutanoic acid (PFBA)	µg/L	0.05	0.9	1.2	29	0.9	1.1	20	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	1	**164**	0.8	0.7	13	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	2.3	2.98	26	2.3	3.0 #1	26	<0.02	<0.02	0	<0.02	<0.05	0	0.12	0.31	**88**	0.21	0.21	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	9.21	13.4	**37**	9.21	12	26	0.08	0.08	0	0.08	0.1	22	0.34	3	**159**	2.44	2.32	5	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	0.03	**40**	<0.02	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	7.57	7.34	3	7.57	7.9 #1	4	0.1	0.1	0	0.1	0.13	26	0.12	0.59	**132**	0.39	0.41	5	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	1.86	2.08	11	1.86	1.9	2	<0.02	<0.02	0	<0.02	0.01	0	0.16	0.83	**135**	0.54	0.65	18	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.1 #3	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.1 #3	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																										
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.5 #3	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.5 #3	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.5 #3	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.5 #3	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.5 #3	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.5 #3	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.5 #3	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																										
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.1 #3	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.5 #3	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.1 #3	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.1 #3	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																										
PFAS (Sum of Total)	µg/L	0.01	163	152	7	163	171.84	5	5.18	5.45	5	5.18	6.65	25	12.2	25.33	**70**	18.8	18.9	1	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	152	136	11	152	159.1	5	4.77	5.01	5	4.77	6.07	24	11.9	20.93	**55**	15.6	15.8	1	<0.01	<0.01	0	<0.01	<0.05	0
Sum of PFHxS and PFOS	µg/L	0.01	128	106	19	128	130	2	4.59	4.83	5	4.59	5.8	23	11.1	12.7	13	9.6	9.99	4	<0.01	<0.01	0	<0.01	<0.01	0

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
#2 Reported Analyte LOR is higher than Requested Analyte LOR
#3 The LORs have been raised due to matrix interference

***RPDs have only been considered where a concentration is greater than 1 times t**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs**
*****Interlab Duplicates are matched on a per compound basis as methods vary be**

	Location Code		0089_PW329	0089_PW329		0089_PW329	0089_PW329		0089_PW378	0089_PW378		0089_PW378	0089_PW378		0089_SW130	0089_SW130		0089_SW130	0089_SW130		0089_PW306	0089_PW306		0089_PW306	0089_PW306	
	Date		11 Jun 2025	11 Jun 2025		11 Jun 2025	11 Jun 2025		12 Jun 2025	12 Jun 2025		12 Jun 2025	12 Jun 2025		13 Jun 2025	13 Jun 2025		13 Jun 2025	13 Jun 2025		16 Jun 2025	16 Jun 2025		16 Jun 2025	16 Jun 2025	
	Field ID		0089_PW329_250611	0089_QC108_2 50611	RPD (%)	0089_PW329_250611	0089_QC208_2 50611	RPD (%)	0089_PW378_250612	0089_QC111_2 50612	RPD (%)	0089_PW378_250612	0089_QC211_2 50612	RPD (%)	0089_SW130_250613	0089_QC112_2 50613	RPD (%)	0089_SW130_250613	0089_QC212_2 50613	RPD (%)	0089_PW306_250616	0089_QC115_2 50616	RPD (%)	0089_PW306_250616	0089_QC215_2 50616	RPD (%)
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																								
PFAS - Perfluoroalkyl Sulfonic Acids																										
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																										
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																										
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																										
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																										
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
#2 Reported Analyte LOR is higher than Requested Analyte LOR
#3 The LORs have been raised due to matrix interference

***RPDs have only been considered where a concentration is greater than 1 times t**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs**
*****Interlab Duplicates are matched on a per compound basis as methods vary be**

Appendix B
Table QC.2
Relative Percentage Differences - Water

	Location Code		0089_SW310	0089_SW310		0089_SW310	0089_SW310		0089_PW415	0089_PW415		0089_PW415	0089_PW415		0089_PW405	0089_PW405		0089_PW405	0089_PW405	
	Date		16 Jun 2025	16 Jun 2025		16 Jun 2025	16 Jun 2025		16 Jun 2025	16 Jun 2025		16 Jun 2025	16 Jun 2025		16 Jun 2025	16 Jun 2025		16 Jun 2025	16 Jun 2025	
	Field ID		0089_SW310_250616	0089_QC116_250616	RPD (%)	0089_SW310_250616	0089_QC216_250616	RPD (%)	0089_PW415_250616	0089_QC117_250616	RPD (%)	0089_PW415_250616	0089_QC217_250616	RPD (%)	0089_PW405_250616	0089_QC118_250616	RPD (%)	0089_PW405_250616	0089_QC218_250616	RPD (%)
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380	
	Matrix Type		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water		Water	Water	
Analyte	**Unit**	**LOR**																		
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0

Comments
#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
#2 Reported Analyte LOR is higher than Requested Analyte LOR
#3 The LORs have been raised due to matrix interference

***RPDs have only been considered where a concentration is greater than 1 times t**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs**
*****Interlab Duplicates are matched on a per compound basis as methods vary be**

Appendix B
Table QC.3
Relative Percentage Differences - Sediment

	Location Code		0089_SD329	0089_SD329		0089_SD329	0089_SD329		0089_SD378	0089_SD378		0089_SD378	0089_SD378		0089_SD335	0089_SD335		0089_SD335	0089_SD335		0089_SD345	0089_SD345		0089_SD345	0089_SD345	
	Date		11 Jun 2025	11 Jun 2025		11 Jun 2025	11 Jun 2025		12 Jun 2025	12 Jun 2025		12 Jun 2025	12 Jun 2025		13 Jun 2025	13 Jun 2025		13 Jun 2025	13 Jun 2025		13 Jun 2025	13 Jun 2025		13 Jun 2025	13 Jun 2025	
	Field ID		0089_SD329_2 50611	0089_QC109_2 50611	RPD (%)	0089_SD329_2 50611	0089_QC209_2 50611	RPD (%)	0089_SD378_2 50612	0089_QC110_2 50612	RPD (%)	0089_SD378_2 50612	0089_QC210_2 50612	RPD (%)	0089_SD335_2 50613	0089_QC113_2 50613	RPD (%)	0089_SD335_2 50613	0089_QC213_2 50613	RPD (%)	0089_SD345_2 50613	0089_QC114_2 50613	RPD (%)	0089_SD345_2 50613	0089_QC214_2 50613	RPD (%)
	Sample Type		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate		Primary	Blind Duplicate		Primary	Split Duplicate	
	Lab Report Number		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380		EP2509632	EP2509632		EP2509632	1233380	
	Matrix Type		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Analyte	**Unit**	**LOR**																									
PFAS - Perfluoroalkyl Sulfonic Acids																											
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids																											
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide																											
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids																											
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
PFAS - Sums																											
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**
*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Appendix C

Results tables

			Well Data			Field data			Field Parameters						
			TOC Elevation	Groundwater Elevation	Screen Interval	Total Well Depth	Standing Water Level	Sample Depth	pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			m AHD		m BGL	m bTOC	m bTOC	m bTOC	pH units	µS/cm	mg/L	mV	°C	mg/L	
Location Code	Date	Sampling Method													Sample Comments
0089_MW010	03 Jun 2025	HydraSleeve	4.167	0.586	-	8.43	3.581	7.5	7.43	2,832	1.15	-210.8	20.5	1,842	*clear, colourless, low turbidity, some sediment, no sheen, distinct hydrocarbon odour*
0089_MW109	06 Jun 2025	HydraSleeve	4.446	0.59	2.5 - 5.5	5.786	3.856	4.5	7.49	929	15.79	-85.2	21	604	*clear, colourless,low turbidity, low sediment, no sheen, no odour*
0089_MW112	06 Jun 2025	HydraSleeve	3.973	0.77	3 - 6	5.846	3.203	4.5	7.59	500	14.52	-160.4	22	325.5	*clear, yellow tinge, low turbidity, low sediment, no sheen, no odour*
0089_MW120	06 Jun 2025	HydraSleeve	4.409	0.635	2.5 - 5.5	5.738	3.774	4.5	7.7	695	27.3	-161.2	19.1	451.1	*cloudy white, medium turbidity, some light grey sediment, no sheen, no odour*
0089_MW121	06 Jun 2025	HydraSleeve	3.7	0.637	2.7 - 5.7	3.961	3.063	3.5	7.99	529	19.46	-82.3	20.8	343.8	*cloudy white, low turbidity, some sediment, no sheen, no odour*
0089_MW123	06 Jun 2025	HydraSleeve	6.62	0.582	4.5 - 8	7.716	6.038	7	7.55	882	12.4	-130.8	21.4	573	*clear, colourless, low turbidity, some white sediment at base of Hydrasleeve, no sheen or odour*
0089_MW124	06 Jun 2025	HydraSleeve	1.899	0.305	0.75 - 4	4.136	1.594	3.5	7.21	41,269	13.33	-95.6	20.6	26,834	*clear, colourless, low turbidity, no sediment load, no sheen, faint seawater odour*
0089_MW125	06 Jun 2025	HydraSleeve	1.882	0.348	0.9 - 3.9	4.334	1.534	3	7.24	40,696	8.8	-104.5	20.1	26,449	*clear, colourless, low turbidity, low sediment, no sheen, salt water odour*
0089_MW126	06 Jun 2025	HydraSleeve	1.948	0.366	0.9 - 3.9	4.203	1.582	3	7.22	35,393	9.53	-122.2	20.4	23,038	*clear, colourless, low turbidity, low sediment, black staining on Hydrasleeve, dead organic matter odour*
0089_MW127	06 Jun 2025	HydraSleeve	1.771	0.367	0.9 - 3.9	4.107	1.404	3	7.18	63,112	5.33	-95.1	21.1	23,482	*clear, colourless, low turbidity, some grey sediment, no sheen, saltwater odour*
0089_MW128	06 Jun 2025	HydraSleeve	4.537	0.554	2.5 - 5.5	5.818	3.983	5.5	7.56	788	15.35	-152.6	18.4	513	*cloudy white, low turbidity, some grey sediment, no sheen, no disticnt odour, rootlets at top of Hydrasleeve*
0089_MW139	11 Jun 2025	HydraSleeve	2.273	0.471	2 - 5	4.796	1.802	4	6.67	3,976	14.32	-177	19.8	2,586	*clear, colourless, low turbidty, some pale yellow sediment at base of Hydrasleeve, no sheen, no odour*
0089_MW141	11 Jun 2025	HydraSleeve	3.025	0.541	2 - 5	5.152	2.484	4.5	7.55	29,344	13	-219.2	20.9	19,094	*clear, colourless, low turbidty, low sediment, no sheen, no odour*
0089_MW142	11 Jun 2025	HydraSleeve	2.573	0.622	0.25 - 4	3.746	1.951	3	7.44	47,174	12.98	-213.5	20.6	30,747	*clear, colourless, low turbidity, some pale yellow sediment, no sheen, no odour*
0089_MW147	11 Jun 2025	HydraSleeve	3.423	0.571	2 - 5	5.495	2.852	5	7.03	25,153	9.72	-180.6	18.7	16,358	*clear, colourless, no turbidty, some brown sediment, no sheen, no odour, some rootlets at top of Hydrasleeve*
0089_MW149	11 Jun 2025	HydraSleeve	2.303	0.78	1 - 4	4.387	1.523	4	7.06	51,373	9.87	-188.7	18.1	33,387	*clear, colourless, low turbidty, no sediment, no sheen, salt water odour, rust on bottom of weight*
0089_MW158	09 Jun 2025	HydraSleeve	14.541	0.557	-	15.861	13.984	15	7.38	13,926	14	-190.3	19.4	9,055	*clear, colourless, low turbidity, low sediment, no sheen, strong dead organic matter odour*
0089_MW161	09 Jun 2025	HydraSleeve	17.225	0.698	-	18.335	16.527	17	7.53	3,174	6.52	-121.4	20.4	2,064	*Clear, colourless, low turbidity, no sediment, no sheen, no odour*
0089_MW166	09 Jun 2025	HydraSleeve	11.89	0.798	10 - 13	12.605	11.092	12	7.42	5,935	8.26	-100.6	19.7	3,858	*clear, slight yellow tinger, low turbidity, low sediment, no sheen, no odour*
0089_MW171	09 Jun 2025	HydraSleeve	29.238	0.671	28.5 - 31.5	31.924	28.567	30	7.44	7,388	6.66	-92.5	20.6	4,804	*clear, colourless, no turbidity, no sediment, no odour or sheen*
0089_MW173	10 Jun 2025	HydraSleeve	10.08	0.653	-	11.386	9.427	10	7.23	4,806	8.19	-635.2	19.8	3,125	*clear, very pale yellow, low turbidity, no sediment, no sheen, no odour, small rootlets*
0089_MW193	10 Jun 2025	HydraSleeve	11.86	0.789	10.5 - 13.5	12.412	11.071	12	7.49	2,341	6.88	-622.9	19.8	1,522	*clear, colourless, low turbidity, some sediment, no sheen, no odour*
0089_MW195D	10 Jun 2025	HydraSleeve	4.363	0.605	10 - 13	12.375	3.758	11.8	6.71	24,123	6.66	-183.9	20.5	15,689	*clear colourless, no turbidty, light grey sediment at base of Hydrasleeve, no sheen, no odour*
0089_MW199	10 Jun 2025	HydraSleeve	11.8	0.419	-	17.682	11.381	16.5	6.82	18,290	9.3	-147.6	18.3	11,891	*clear, colourless, low turbidity, no sediment, no sheen, strong organic odour*
0089_MW200	10 Jun 2025	HydraSleeve	2.07	0.447	-	2.641	1.623	2	7.73	9,386	16.02	-128.1	22	6,102	*clear, colourless, no turbidity, no sediment, no sheen, no odour*
0089_MW202	10 Jun 2025	HydraSleeve	2.12	0.606	-	2.927	1.514	2	7.22	2,232	16.35	-90.7	19.4	1,465	*clear, colourless, low turbidty, no sediment, no sheen, no odour*
0089_MW203	10 Jun 2025	HydraSleeve	10.855	0.509	-	12.849	10.346	11	6.86	903	9.66	-119.1	19.5	588	*clear, colourless, low turbidity, some brown sediment, no sheen, no odour*
0089_MW214	05 Jun 2025	HydraSleeve	8.075	0.794	5.5 - 9	9.068	7.281	8	7.22	3,727	3.86	-124.7	19.5	2,423	*clear, low turbidity, some dark grey sediment, no sheen, distinct hydrocarbon odour*
0089_MW215	05 Jun 2025	HydraSleeve	3.794	0.682	1.5 - 4.5	4.802	3.112	3.5	7.34	3,986	6.6	-163.8	20.7	2,591	*clear dark grey, medium turbidity, some sediment, small sheen, distinct hydrocarbon odour*
0089_MW216	05 Jun 2025	HydraSleeve	8.329	0.806	6 - 9	9.431	7.523	9	7.52	2,017	5.67	82	19.8	1,311	*clear, low turbidity, no sediment, no sheen, no odour*
0089_MW217	05 Jun 2025	HydraSleeve	8.847	0.793	6.5 - 9.5	9.689	8.054	8.5	7.62	765	9.37	57.7	19.6	497	*cloudy light grey, medium turbidity, some sediment, no sheen, no odour*
0089_MW220	05 Jun 2025	HydraSleeve	7.054	0.649	-	8.258	6.405	7	7.58	663	5.36	-58.5	19.2	430.7	*cloudy grey, medium turbidity, moderate dark grey sediment load, no sheen, distinct organic odour, some rootlets at top of Hydrasleeve*
0089_MW224	05 Jun 2025	HydraSleeve	13.372	0.551	11.25 - 14.25	14.216	12.821	13	7.85	834	12.43	88.3	18.9	542	*slightly cloudy white, some turbidity, some sediment, no sheen, no odour*
0089_MW225	05 Jun 2025	HydraSleeve	4.066	0.557	2 - 5	5.416	3.509	4	7.42	2,771	3.57	-157.4	20.7	1,801	*clear, slight pale yellow tinge, some grey sediment, no sheen, faint organic odour*
0089_MW226	05 Jun 2025	HydraSleeve	1.749	0.423	0.75 - 3.8	4.024	1.326	3	7.25	41,315	4.18	-10.3	20.7	26,863	*clear, yellow tinge, low turbidity, no sediment, no sheen, no odour*
0089_MW227	05 Jun 2025	HydraSleeve	2.961	0.463	1.25 - 4.2	4.105	2.498	3	7.53	4,452	3.21	-196.3	19.9	2,888	*clear, moderate turbidity, low sediment, light sheen, distinctive hydrocarbon odour*
0089_MW228	05 Jun 2025	HydraSleeve	2.23	0.474	0.75 - 3.75	4.055	1.756	3	7.69	10,293	11.14	-39.8	19.6	6,690	*clear, yellow tinge, low turbidity, no sediment, no sheen, no odour*
0089_MW233	12 Jun 2025	HydraSleeve	3.705	1.609	-	4.48	2.096	4	7.59	308.1	11.89	-370.5	18.3	203.5	*clear, colourless, low turbidity, no sediment, no sheen, no odour*
0089_MW236	12 Jun 2025	HydraSleeve	4.642	0.735	-	5.068	3.907	4	8.33	665	12.23	-417.5	21.1	432.9	*clear, pale yellow, low turbidity, some brown sediment, no sheen, no odour*
0089_MW238	12 Jun 2025	HydraSleeve	4.827	0.616	-	7.032	4.211	5.5	8.16	815	8.63	-404.8	20.3	531	*clear, colourless, low turbidity, no sediment, no sheen, no odour, some floating organic matter and rootlets at top of Hydrasleeve*
0089_MW240	12 Jun 2025	HydraSleeve	4.483	0.631	-	6.799	3.852	6	9.01	954	9.01	-375.6	20.1	619	*clear, colourless, low turbidity, some brown sediment, no sheen, no odour*
0089_MW242	04 Jun 2025	Low flow/peri pump	3.539	0.56	-	4.259	2.979	3.5	7.73	552	26.2	4.2	24.2	358.2	*clear, low turbidity, no sediment, no sheen, no odour*
0089_MW243	12 Jun 2025	HydraSleeve	4.892	0.614	-	6.948	4.278	5.5	7.44	933	10.91	-419	19.6	605	*clear, colourless, low turbidity, some brown sediment, no sheen, no odour*
0089_MW245	12 Jun 2025	HydraSleeve	4.551	0.603	-	6.327	3.948	5	7.07	792	8.84	-357.8	18.5	515	*clear, colourless, low turbidity, no sediment load, slight sheen, moderate to strong hydrocarbon odour*
0089_MW249	04 Jun 2025	HydraSleeve	5.227	0.463	3.5 - 6.5	6.236	4.764	5	7.43	1,532	13	-162	21.4	996	*clear, some black staining on Hydrasleeve, low turbidity, no sheen, distinct hydrocarbon odour, some rootlets at top of Hydrasleeve*
0089_MW255	03 Jun 2025	HydraSleeve	4.609	0.658	3 - 6	6.325	3.951	5.5	7.56	920	0.95	98.4	22.1	598	*clear colourless, low turbidity, no sediment, no sheen, no odour*
0089_MW256	03 Jun 2025	HydraSleeve	3.84	0.674	3 - 6	5.661	3.166	4.5	6.97	1,720	2.77	117.2	21.3	1,119	*clear, low turbidity, no sediment, no sheen, no odour, some rootlets in Hydrasleeve, low volume*
0089_MW257	03 Jun 2025	HydraSleeve	3.806	0.652	2.7 - 5.7	5.296	3.154	4.5	7.82	500	4.77	71.1	23.4	325	*clear, low turbidity, no sediment load, no sheen, no odour*
0089_MW258	03 Jun 2025	HydraSleeve	4.043	0.638	3 - 6	5.342	3.405	4.3	7.21	1,326	1.34	117.3	23.2	862	*clear, low turbidity, no sediment, no sheen, no odour, some root matter in Hydrasleeve*
0089_MW259	03 Jun 2025	HydraSleeve	3.8	0.641	2.5 - 5.5	5.413	3.159	4.5	7.32	635	1.05	102.1	21.5	412.8	*clear, slight yellow tinge, low turbidity, no sediment, no sheen, no odour, roots clustered at top of Hydrasleeve*
0089_MW268	03 Jun 2025	HydraSleeve	4.056	0.62	2.5 - 5.5	5.741	3.436	5	7.28	7,020	1.76	-31.9	21.6	4,562	*clear colourless, low turbidity, some sediment, no sheen, no odour*
0089_MW269	03 Jun 2025	HydraSleeve	4.153	0.613	2.5 - 5.5	5.852	3.54	4.5	7.43	2,133	3.06	-155.1	20.2	1,387	*clear, low turbidity, some sediment, no sheen, no odour, rootlets at top of Hydrasleeve*
0089_MW282	05 Jun 2025	Low flow/peri pump	5.78	0.644	4.5 - 7.5	6.432	5.136	6	7.08	1,154	19.85	100.5	21.8	750	*clear, low turbidity, no sediment, no sheen, faint hydrocarbon odour, 50ml/min*
0089_MW288	04 Jun 2025	HydraSleeve	4.003	0.742	2.25 - 5.25	5.832	3.261	4.5	7.55	796	22.18	-42.1	21	517	*clear colourless, low turbidity, low sediment, no sheen, no odour*
0089_MW289	04 Jun 2025	HydraSleeve	4.495	0.659	3.25 - 6.25	6.018	3.836	5	7.68	773	25.95	-35.2	22	503	*clear, low turbidity, some sediment, no sheen, no odour, some rootlets in Hydrasleeve*
0089_MW468	10 Jun 2025	HydraSleeve	-	-	0 - 1.2	2.864	1.934	2	6.97	22,000	6.37	-58.3	20.9	14,300	*pale orange, clear, low turbidity, some sediment, no sheen, no odour. No survey data available.*
0089_MW496	04 Jun 2025	HydraSleeve	5.092	0.559	3.5 - 8	8.187	4.533	6	7.43	1,475	12.24	-264.2	20.4	960	*clear, low turbidity, no sediment, no sheen, distinct hydrocarbon odour, some rootlets*
0089_MW500	06 Jun 2025	HydraSleeve	3.692	0.613	2 - 6.5	5.696	3.079	5	7.34	855	8.21	-42	22.4	556	*clear, medium turbidity, medium yellow sediment load, no sheen or odour, pale yellow sand on outside of Hydrasleeve*
0089_MW516	04 Jun 2025	HydraSleeve	6.37	0.538	4.5 - 7.5	7.861	5.832	7	7.07	1,310	15	-151.2	21.4	852	*clear, slight pale yellow tinge, low turbidity, no sediment, no sheen, distinct hydrocarbon odour*
0089_MW553	03 Jun 2025	HydraSleeve	3.801	0.538	3 - 6	5.704	3.263	5	7.43	847	1.8	-145.1	21	551	*clear, colourless, low turbidity, no sediment, no sheen, distinct hydrocarbon odour, rootlets on Hydrasleeve and some of Hydrasleeve twine stained black*

			Field Parameters						
			pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			pH units	µS/cm	mg/L	mV	°C	mg/L	
Location Code	Date	Sampling Method							Sample Comments
0089_PW304	13 Jun 2025	Purge/Peri pump	7.34	54,588	7.34	-339.5	16.7	35,467	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW306	16 Jun 2025	Purge/Peri pump	7.53	53,864	11.46	-314	18.2	35,019	*clear, colourless, low turbidity, no sheen, saltwater and seaweed odour*
0089_PW307	16 Jun 2025	Purge/Peri pump	7.72	53,742	12.23	-321.5	17.4	34,927	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW308	16 Jun 2025	Purge/Peri pump	7.96	53,360	12.6	-296.9	18.3	34,659	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW315	16 Jun 2025	Purge/Peri pump	7.59	54,041	12.64	-276.6	16.7	35,131	*clear, colourless, low turbidity, low sediment, no sheen, seawater and seaweed odour*
0089_PW316	16 Jun 2025	Purge/Peri pump	7.82	53,060	11.33	-309.6	19.2	34,490	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW329	11 Jun 2025	Purge/Peri pump	7.69	57,163	15.6	-225.1	18.4	33,678	*clear, colourless, low sediment, low turbidity, no sheen, saltwater odour*
0089_PW330	11 Jun 2025	Purge/Peri pump	8.04	53,829	13.28	-247.2	19	34,988	*clear, colourless, no turbidity, no sediment, no sheen, no odour*
0089_PW331	11 Jun 2025	Purge/Peri pump	8.69	52,267	11.84	-303.7	18	33,973	*clear, salty odour, no sheen, no sediment, no turbidity*
0089_PW335	13 Jun 2025	Purge/Peri pump	7.32	52,693	13.28	-454.4	16.3	34,244	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW340	13 Jun 2025	Purge/Peri pump	7.57	53,724	10.8	-420	16.5	34,918	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW341	13 Jun 2025	Purge/Peri pump	7.54	53,161	8.63	-435.7	16.2	34,553	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW345	13 Jun 2025	Purge/Peri pump	7.38	54,600	8.46	-387	16.7	35,487	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW346	13 Jun 2025	Purge/Peri pump	7.34	16,653	6.66	-329.5	18.9	10,803	*clear, colourless, no turbidity, no sediment, no sheen, salty odour*
0089_PW350	09 Jun 2025	No purge/Bailer	8.05	55,743	7.98	-86.4	20.3	36,258	*cloudy, high turbidity, high sediment load, no sheen, no odour*
0089_PW351	09 Jun 2025	No purge/Bailer	8.13	54,924	10.64	-88.5	20.5	35,742	*clear, slightly cloudy, medium turbidity, high sediment, no sheen, no odour*
0089_PW352	09 Jun 2025	No purge/Bailer	8.16	55,578	7.94	-80.4	21.4	36,135	*cloudy white, moderate turbidity, some sediment, no sheen, no odour*
0089_PW356	11 Jun 2025	Purge/Peri pump	9.72	53,691	13.5	-365.6	18.4	34,923	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW357	11 Jun 2025	Purge/Peri pump	8.45	53,671	12.26	-292.9	19.2	34,896	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW358	11 Jun 2025	Purge/Peri pump	8.28	53,785	13.23	-266.6	19	34,960	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW362	13 Jun 2025	Purge/Peri pump	7.47	52,744	7.74	-421.9	16.6	34,285	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW363	13 Jun 2025	Purge/Peri pump	7.51	54,083	12	-446.2	17.1	35,141	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW364	13 Jun 2025	Purge/Peri pump	7.54	54,183	10.98	-413.6	16.6	35,218	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW368	13 Jun 2025	Purge/Peri pump	7.45	39,098	7.45	-346.6	15.9	25,359	*clear, colourless, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW369	13 Jun 2025	Purge/Peri pump	7.13	20,572	7.12	-368.2	18.3	13,369	*clear, pale yellow/brown colour, no turbidity, no sediment, no sheen, saltwater odour*
0089_PW374	12 Jun 2025	Purge/Peri pump	7.6	54,071	10.96	-460.9	16.3	35,148	*clear, colourless, low turbidity, no sediment, no sheen, saltwater odour*
0089_PW375	12 Jun 2025	Purge/Peri pump	7.62	53,452	13.14	-461.9	16.4	34,803	*clear, no sediment, no turbidity, salty odour, no sheen*
0089_PW378	12 Jun 2025	Purge/Peri pump	7.73	53,825	13.66	-445.5	16.7	34,998	*clear, salty odour, no sheen, no sediment, no turbidity*
0089_PW380	09 Jun 2025	No purge/Bailer	7.97	50,938	13.68	-59.2	18.7	33,551	*cloudy, high turbidity, high seddiment, no sheen, no odour*
0089_PW381	09 Jun 2025	No purge/Bailer	8.15	54,777	9.32	-84.2	21.1	35,688	*clear, slightly cloudy, medium turbidity, high sediment, no sheen, faint saltwater odour*
0089_PW401	09 Jun 2025	No purge/Bailer	8.11	54,555	10.23	-50.2	20.7	35,436	*clear, no turbidity, salty odour, no sheen*
0089_PW405	16 Jun 2025	Purge/Peri pump	7.68	53,269	10.14	-277.1	15.8	34,622	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW407	16 Jun 2025	Purge/Peri pump	7.82	53,852	-	-263	17.2	34,974	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW409	16 Jun 2025	Purge/Peri pump	7.55	52,604	12.58	-308.1	16.5	34,184	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW411	16 Jun 2025	Purge/Peri pump	7.58	54,012	12.46	-290.7	17.1	35,103	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW413	16 Jun 2025	Purge/Peri pump	7.52	54,885	12.69	-302.5	17	35,667	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*
0089_PW415	16 Jun 2025	Purge/Peri pump	7.4	54,058	14.11	-319	17.9	35,137	*clear, colourless, low turbidity, low sediment, no sheen, salty odour*

Appendix C
Table C3
Surface Water Field Parameters

			Field Parameters							
			pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	DO (%S) (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			pH units	µS/cm	mg/L	%S	mV	°C	mg/L	
Location Code	Date	Sampling Method								Sample Comments
0089_SW130	13 Jun 2025	Grab	7.74	53,652	11.54	149.2	-454.4	17.7	34,882	
0089_SW132	13 Jun 2025	Grab	7.98	53,636	10.59	-	-423.1	18.7	34,865	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW134	13 Jun 2025	Grab	7.96	53,784	10.89	138.7	-435.5	17.8	34,975	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW150	11 Jun 2025	Grab	8.88	53,668	12.27	162.2	-303.6	18.7	34,923	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW152	11 Jun 2025	Grab	8.31	53,697	11.04	152.8	-264.9	20.4	-	*clear, colourless, low turbidity, no sheen, no odour*
0089_SW154	11 Jun 2025	Grab	8.68	53,982	11.9	162.1	-283.8	20.3	35,057	*clear, colourless, low turbidity, some sediment, no odour, no sheen*
0089_SW156	11 Jun 2025	Grab	7.9	53,788	12.96	172.3	-236.3	19.4	34,955	*clear, colourless, low turbidity, some sediment, no sheen, saltwater odour*
0089_SW305	13 Jun 2025	Grab	7.91	53,661	9.63	-	-353.1	17.6	34,885	*clear, colourless, low turbidity, no sheen, saltwater/seaweed odour*
0089_SW309	16 Jun 2025	Grab	7.88	29,658	12.02	140.8	-320.6	18.9	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW310	16 Jun 2025	Grab	7.96	53,814	8.75	116	-334.3	18.4	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW311	16 Jun 2025	Grab	7.99	53,794	14.13	143.5	-338.7	19.5	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW317	12 Jun 2025	Grab	7.93	53,146	12.45	160.2	-460.3	17.7	34,543	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW318	12 Jun 2025	Grab	7.9	52,893	12.54	160	-469.5	17.7	34,399	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW319	12 Jun 2025	Grab	7.91	53,740	11.91	153.8	-465.3	17.5	34,940	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW353	19 Jun 2025	Grab	8.14	53,977	10.19	132.5	-144.1	19.2	-	*clear, colourless, low turbidity, some sediment, no sheen, saltwater odour*
0089_SW370	13 Jun 2025	Grab	7.91	53,115	10.03	-	-387.5	19	34,589	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW371	13 Jun 2025	Grab	7.96	53,702	11.2	-	346.2	18.1	34,512	*clear, colourless, low turbidity, no sheen, saltwater/seaweed odour*
0089_SW372	13 Jun 2025	Grab	7.91	52,817	10.02	-	-338.4	18.1	34,341	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW373	13 Jun 2025	Grab	7.9	53,485	10.08	-	-347.1	18.2	34,765	*clear, colourless, low turbidity, no sheen, saltwater/seaweed odour*
0089_SW382	09 Jun 2025	Grab	8.18	54,140	9.84	131.8	-89.8	20.7	35,379	*clear, colourless, low turbidity, some sediment, no sheen, saltwater odour*
0089_SW383	09 Jun 2025	Grab	8.17	54,158	15.6	211.2	-53.6	21.9	-	*clear, colourless, low turbidity, some sediment, no sheen, no odour*
0089_SW384	09 Jun 2025	Grab	8.16	53,833	9.01	122.1	-77.5	20	-	*clear, colourless, low turbidity, no sediment, no sheen, saltwater odour*
0089_SW406	16 Jun 2025	Grab	8.07	53,535	9.87	130.2	-336	18.6	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW408	16 Jun 2025	Grab	8.05	53,785	11.1	147.8	-280.7	18.7	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW410	16 Jun 2025	Grab	8.02	53,900	10.61	140.9	-305.8	18.9	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW412	16 Jun 2025	Grab	8.08	53,683	10.72	142.8	-283.6	19.2	-	*clear, colourless, low turbidity, no sheen, saltwater odour*
0089_SW416	16 Jun 2025	Grab	8.02	54,045	13.44	179.4	-316.5	19.7	-	*clear, colourless, low turbidity, no sheen, saltwater odour*

Analyte	Unit	LOR	Monitoring Zone	Accomodation Area				Helicopter Support Facility									
			Location Code	0089_MW288	0089_MW288	0089_MW288	0089_MW289	0089_MW214	0089_MW215	0089_MW216	0089_MW217	0089_MW220	0089_MW224	0089_MW225	0089_MW226	0089_MW227	0089_MW228
			Sample Type	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
			Date	04 Jun 2025	04 Jun 2025	04 Jun 2025	04 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025	05 Jun 2025
			Field ID	0089_MW288_250604	0089_QC103_250604	0089_QC203_250604	0089_MW289_250604	0089_MW214_250605	0089_MW215_250605	0089_MW216_250605	0089_MW217_250605	0089_MW220_250605	0089_MW224_250605	0089_MW225_250605	0089_MW226_250605	0089_MW227_250605	0089_MW228_250605
			Lab Report Number	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	<0.02	<0.02	0.01	0.13	<0.02	0.57	0.16	<0.02	0.34	<0.02	<0.02	<0.02	<0.02	0.46
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	<0.01	0.02	<0.02	0.02	0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	0.16	0.27	0.39	1.19	<0.01	<0.01	0.23	0.07	7.39	0.02	<0.01	<0.01	<0.01	0.03
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.01	0.03	<0.02	0.06	0.05	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	0.10
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	<0.02	0.02	0.12	<0.02	0.98	0.14	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	0.28
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	0.05	0.25	0.32	0.76	<0.01	2.62	1.04	0.02	0.54	<0.01	<0.01	0.02	<0.01	0.86
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	<0.05	<0.1	<0.1	0.1	2.4	2.0	0.2	<0.1	<0.1	<0.1	<0.1	1.7
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		<0.02	<0.02	<0.05	0.03	<0.02	0.25	0.78	1.00	0.11	<0.02	<0.02	<0.02	<0.02	1.34
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	<0.02	0.02	0.15	<0.02	1.83	6.56	4.00	0.72	<0.02	<0.02	<0.02	<0.02	6.29
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	<0.01	<0.01	<0.01	0.05	<0.01	0.08	0.12	0.29	0.06	<0.01	<0.01	<0.01	<0.01	0.22
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		<0.02	<0.02	<0.01	0.03	<0.02	0.20	8.44	9.65	0.48	<0.02	<0.02	<0.02	<0.02	6.33
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.60	15.4	<0.05	<0.05	<0.05	<0.05	<0.05	0.38
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																	
PFAS (Sum of Total)	µg/L	0.01		0.21	0.52	0.78	2.51	<0.01	6.71	23.5	32.7	10.1	0.02	<0.01	0.02	<0.01	18.0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		0.21	0.52	0.74	2.34	<0.01	5.65	23.3	32.7	9.84	0.02	<0.01	0.02	<0.01	17.6
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	0.39	-	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		0.21	0.52	0.71	1.95	<0.01	2.62	1.27	0.09	7.93	0.02	<0.01	0.02	<0.01	0.89
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	0.71	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
#2 The LORs have been raised due to matrix interference
#3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Analyte	Unit	LOR	Monitoring Zone	Helicopter Support Facility			Dredged Sediments				WWTP						
			Location Code	0089_MW282	0089_MW282	0089_MW282	0089_MW268	0089_MW269	0089_MW269	0089_MW269	0089_MW158	0089_MW161	0089_MW166	0089_MW171	0089_MW171	0089_MW173	0089_MW193
			Sample Type	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Blind Duplicate	Primary	Primary
			Date	05 Jun 2025	05 Jun 2025	16 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	09 Jun 2025	09 Jun 2025	09 Jun 2025	09 Jun 2025	09 Jun 2025	10 Jun 2025	10 Jun 2025
			Field ID	0089_MW282_250605	0089_QC104_250605	0089_QC204_250605	0089_MW268_250603	0089_MW269_250603	0089_QC101_250603	0089_QC201_250603	0089_MW158_250606	0089_MW161_250609	0089_MW166_250609	0089_MW171_250609	0089_QC106_250609	0089_MW173_250610	0089_MW193_250610
			Lab Report Number	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
PFAS - Perfluoroalkyl Sulfonic Acids			ADWG 2011 Health (v4.0 updated June 2025)														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	2.43	2.90	3.2	0.25	0.05	0.04	0.07	<0.02	0.03	0.08	1.61	1.55	0.15	0.31
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.04[#1]	<0.04[#1]	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		5.77	6.41	5.2[#3]	<0.02	<0.02	<0.02	0.01[#3]	<0.02	0.02	0.89	1.04	0.94	0.28	0.52
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	73.0	46.4	63[#3]	0.02	0.36	0.35	0.51[#3]	<0.01	0.60	8.25	2.65	2.73	2.49	1.61
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.58	0.71	0.74	0.09	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	0.96	1.12	0.03	0.08
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		4.59	9.11	6.8[#3]	0.27	0.05	0.05	0.07[#3]	<0.02	<0.02	0.06	1.21	1.02	0.11	0.88
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	55.1	59.4	67[#3]	0.85	0.52	0.51	0.72[#3]	<0.01	0.18	2.52	6.95	7.26	1.53	7.23
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	µg/L	0.05		0.9	1.2	1.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	0.2	0.8	0.7	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		2.30	2.98	3.0[#3]	<0.02	<0.02	<0.02	<0.05	<0.02	0.02	0.18	0.21	0.21	0.06	0.19
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		9.21	13.4	12	0.26	0.09	0.09	0.12	<0.02	0.06	0.43	2.44	2.32	0.46	0.89
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	0.03	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.03
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	7.57	7.34	7.9[#3]	0.01	0.02	0.02	0.02[#3]	<0.01	0.02	0.24	0.39	0.41	0.18	0.41
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		1.86	2.08	1.9	0.05	0.03	0.03	0.04	<0.02	0.05	0.37	0.54	0.65	0.11	0.15
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.1[#2]	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.1[#2]	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.5[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.5[#2]	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.5[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.5[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.5[#2]	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.5[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.5[#2]	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.1[#2]	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.5[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.1[#2]	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.1[#2]	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																	
PFAS (Sum of Total)	µg/L	0.01		163	152	171.84	1.80	1.12	1.09	1.58	<0.01	0.98	13.2	18.8	18.9	5.40	12.3
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		152	136	159.1	1.44	1.07	1.04	1.48	<0.01	0.96	12.3	15.6	15.8	4.98	10.8
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	70.9	-	-	-	0.53	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		128	106	130	0.87	0.88	0.86	1.23	<0.01	0.78	10.8	9.60	9.99	4.02	8.84
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	137.9	-	-	-	1.25	-	-	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
#2 The LORs have been raised due to matrix interference
#3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

			Monitoring Zone	WWTP						Demolition Ground							AVCAT Storage and Fuel Farm
			Location Code	0089_MW195D	0089_MW199	0089_MW200	0089_MW202	0089_MW203	0089_MW468	0089_MW139	0089_MW139	0089_MW139	0089_MW141	0089_MW142	0089_MW147	0089_MW149	0089_MW238
			Sample Type	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary
			Date	10 Jun 2025	10 Jun 2025	10 Jun 2025	10 Jun 2025	10 Jun 2025	10 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	12 Jun 2025
			Field ID	0089_MW195D_250610	0089_MW199_250610	0089_MW200_250610	0089_MW202_250610	0089_MW203_250610	0089_MW468_250610	0089_MW139_250611	0089_QC107_250611	0089_QC207_250611	0089_MW141_250611	0089_MW142_250611	0089_MW147_250611	0089_MW149_250611	0089_MW238_250612
			Lab Report Number	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	ADWG 2011 Health (v4.0 updated June 2025)														
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.37	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.09	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.77	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	36.7	0.55	0.03	<0.01	0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.10	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.71	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	12.7	0.19	0.05	<0.01	0.04
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	0.2	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	0.25	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	8.78	0.06	0.03	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.16	0.02	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.97	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																	
PFAS (Sum of Total)	µg/L	0.01		<0.01	0.02	<0.01	0.03	0.04	<0.01	<0.01	<0.01	<0.1	62.8	0.82	0.11	<0.01	0.05
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		<0.01	0.02	<0.01	0.03	0.04	<0.01	<0.01	<0.01	<0.05	61.1	0.82	0.11	<0.01	0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		<0.01	0.02	<0.01	0.03	0.04	<0.01	<0.01	<0.01	<0.01	49.4	0.74	0.08	<0.01	0.05
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
#2 The LORs have been raised due to matrix interference
#3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

			Monitoring Zone	AVCAT Storage and Fuel Farm											Fire Training Area		
			Location Code	0089_MW240	0089_MW242	0089_MW243	0089_MW245	0089_MW249	0089_MW249	0089_MW249	0089_MW233	0089_MW236	0089_MW496	0089_MW516	0089_MW112	0089_MW109	0089_MW120
			Sample Type	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary
			Date	12 Jun 2025	04 Jun 2025	12 Jun 2025	12 Jun 2025	04 Jun 2025	04 Jun 2025	04 Jun 2025	12 Jun 2025	12 Jun 2025	03 Jun 2025	04 Jun 2025	06 Jun 2025	06 Jun 2025	06 Jun 2025
			Field ID	0089_MW240_2 50612	0089_MW242_2 50604	0089_MW243_2 50612	0089_MW245_2 50612	0089_MW249_2 50604	0089_QC102_25 0604	0089_QC202_25 0604	0089_MW233_2 50612	0089_MW236_2 50612	0089_MW496_2 50604	0089_MW516_2 50604	0089_MW112_2 50606	0089_MW109_2 50606	0089_MW120_2 50606
			Lab Report Number	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	ADWG 2011 Health (v4.0 updated June 2025)														
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	0.08	0.05	<0.02	0.08	0.10	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.04[#1]	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.04[#1]	<0.02	<0.02	0.25	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	0.53	0.10	0.03	2.26	0.30	0.37
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	0.01	0.03	0.15	0.01	0.02	0.02	0.77[#3]	0.06	50.7	7.59	10.4	31.5	2.07	3.34
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02[#3]	<0.02	0.16	0.07	0.04	0.30	0.35	0.04
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	0.11	<0.01	0.03	0.03	0.14	0.13	0.19[#3]	<0.01	10.8	1.10	0.93	7.70	6.51	1.25
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	0.15	0.03	<0.02	0.32	0.08	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	0.02	0.02	0.04	<0.02	0.46	0.15	0.05	1.12	0.77	0.08
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	1.74	<0.02	<0.02	0.03	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01[#3]	<0.01	2.21	0.10	0.03	1.40	0.20	0.10
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	0.09	<0.02	<0.02	0.20	0.10	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	0.35	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.1	<0.05	<0.05	<0.05	<0.05	0.10	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																	
PFAS (Sum of Total)	µg/L	0.01		0.12	0.03	0.18	0.04	0.18	0.17	2.15	0.06	66.9	9.19	11.5	45.6	10.5	5.18
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		0.12	0.03	0.18	0.04	0.18	0.17	2.13	0.06	64.5	9.02	11.4	42.4	9.83	4.77
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	0.78	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		0.12	0.03	0.18	0.04	0.16	0.15	0.96	0.06	61.5	8.69	11.3	39.2	8.58	4.59
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-	-	0.97	-	-	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
#2 The LORs have been raised due to matrix interference
#3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Analyte	Unit	LOR	Monitoring Zone	Fire Training Area											Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage		
			Location Code	0089_MW120	0089_MW120	0089_MW121	0089_MW121	0089_MW123	0089_MW124	0089_MW125	0089_MW126	0089_MW127	0089_MW128	0089_MW500	0089_MW255	0089_MW256	0089_MW257
			Sample Type	Blind Duplicate	Split Duplicate	Primary	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
			Date	06 Jun 2025	06 Jun 2025	06 Jun 2025	09 Jun 2025	06 Jun 2025	06 Jun 2025	06 Jun 2025	06 Jun 2025	06 Jun 2025	06 Jun 2025	06 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025
			Field ID	0089_QC105_250606	0089_QC205_250606	0089_MW121_250606	0089_QC206_250609	0089_MW123_250606	0089_MW124_250606	0089_MW125_250606	0089_MW126_250606	0089_MW127_250606	0089_MW128_250606	0089_MW500_250606	0089_MW255_250603	0089_MW256_250603	0089_MW257_250603
			Lab Report Number	EP2509632	1233380	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	<0.02	0.03	0.08	2.5	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	0.83	0.58	1.65	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.01	0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.10	<0.02	0.29	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		0.40	0.53	0.13	1.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	2.50	<0.02	0.35	0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	3.53	4.3	9.08	3.5	0.07	<0.01	0.01	0.02	<0.01	0.85	50.4	0.24	19.4	0.27
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.01	<0.02	1.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.27	0.19	0.37	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.04	0.05	0.13	1.5	0.07	<0.02	0.02	<0.02	<0.02	<0.02	1.12	0.53	2.82	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	1.30	1.5	1.99	9.2	0.48	0.01	0.15	0.02	0.02	0.03	13.2	2.46	10.2	0.27
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.05	<0.1	1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.2	0.4	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		<0.02	<0.05	0.12	0.31	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.32	0.07	0.43	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		0.08	0.10	0.34	3.0	0.07	<0.02	0.05	<0.02	<0.02	0.06	3.66	1.08	4.28	0.10
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	0.10	0.13	0.12	0.59	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	1.07	0.03	0.50	0.03
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		<0.02	0.01	0.16	0.83	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.60	0.24	0.83	0.13
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.01	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.01	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.27	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.01	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.01	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																	
PFAS (Sum of Total)	µg/L	0.01		5.45	6.65	12.2	25.33	0.78	0.01	0.23	0.04	0.02	0.94	74.4	5.62	41.9	0.82
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		5.01	6.07	11.9	20.93	0.71	0.01	0.21	0.04	0.02	0.94	70.4	4.90	38.0	0.80
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	4.43	-	4.09	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		4.83	5.8	11.1	12.7	0.55	0.01	0.16	0.04	0.02	0.88	63.6	2.70	29.6	0.54
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	5.93	-	13.29	-	-	-	-	-	-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
#2 The LORs have been raised due to matrix interference
#3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

Monitoring Zone				Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage					
Location Code				0089_MW258	0089_MW259	0089_MW010	0089_MW010	0089_MW010	0089_MW553
Sample Type				Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary
Date				03 Jun 2025	03 Jun 2025	03 Jun 2025	04 Jun 2025	03 Jun 2025	03 Jun 2025
Field ID				0089_MW258_250603	0089_MW259_250603	0089_MW010_250603	0089_QC100_250603	0089_QC200_250603	0089_MW553_250603
Lab Report Number				EP2509632	EP2509632	EP2509632	EP2509632	1233380	EP2509632
Analyte	**Unit**	**LOR**	ADWG 2011 Health (v4.0 updated June 2025)						
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	1	5.04	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		1.19	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.008	11.0	0.09	<0.01	0.01	0.01[#3]	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		1.70	0.03	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		4.68	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.03	16.2	0.05	0.05	0.05	0.07[#3]	0.02
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05		1.3	<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02		0.93	<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		9.08	0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.2	0.83	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		2.10	0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		0.13	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01		<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01		54.2	0.21	0.05	0.06	<0.1	0.02
PFAS (Sum of Total)(WA DER List)	µg/L	0.01		46.6	0.18	0.05	0.06	0.08	0.02
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	0.01	-
Sum of PFHxS and PFOS	µg/L	0.01		27.2	0.14	0.05	0.06	0.08	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	0.08	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
#2 The LORs have been raised due to matrix interference
#3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

				Monitoring Zone	**Accommodation Area**	**Demolition Ground**									**Dredged Sediments**					
				Location Code	0089_PW346	0089_PW329	0089_PW329	0089_PW329	0089_PW330	0089_PW331	0089_PW356	0089_PW357	0089_PW358	0089_PW374	0089_PW375	0089_PW378	0089_PW378	0089_PW378
				Sample Type	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate
				Date	17 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025
				Field ID	0089_PW346_250613	0089_PW329_2 50611	0089_QC108_2 50611	0089_QC208_2 50611	0089_PW330_2 50611	0089_PW331_2 50611	0089_PW356_2 50611	0089_PW357_2 50611	0089_PW358_2 50611	0089_PW374_2 50612	0089_PW375_2 50612	0089_PW378_2 50612	0089_QC111_2 50612	0089_QC211_2 50612
				Lab Report Number	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380
Analyte	**Unit**	**LOR**	PFAS NEMP / ANZH (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline														
PFAS - Perfluoroalkyl Sulfonic Acids																		
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	1.31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																		
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			0.14	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			0.10	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
PFAS - Perfluoroalkyl Sulfonamide																		
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids																		
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums																		
PFAS (Sum of Total)	µg/L	0.01			1.77	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			1.74	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	<0.01	-	-	-	-	-	-	-	-	-	<0.01
Sum of PFHxS and PFOS	µg/L	0.01		2	1.46	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	<0.01	-	-	-	-	-	-	-	-	-	<0.01

Monitoring Zone				Fire Training Area						Helicopter Support Facility								
Location Code				0089_PW335	0089_PW340	0089_PW341	0089_PW362	0089_PW363	0089_PW364	0089_PW306	0089_PW306	0089_PW306	0089_PW307	0089_PW308	0089_PW315	0089_PW316	0089_PW405	0089_PW405
Sample Type				Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Blind Duplicate
Date				13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025
Field ID				0089_PW335_2 50613	0089_PW340_2 50613	0089_PW341_2 50613	0089_PW362_2 5613	0089_PW363_2 50613	0089_PW364_2 50613	0089_PW306_2 50616	0089_QC115_2 50616	0089_QC215_2 50616	0089_PW307_2 50616	0089_PW308_2 50616	0089_PW315_2 50616	0089_PW316_2 50616	0089_PW405_2 50616	0089_QC118_2 50616
Lab Report Number				EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	PFAS NEMP / ANZH (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline														
PFAS - Perfluoroalkyl Sulfonic Acids																		
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																		
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																		
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																		
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																		
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-

Analyte	Unit	LOR	PFAS NEMP / ANZH (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline	Monitoring Zone	Helicopter Support Facility								WWTP						
					Location Code	0089_PW405	0089_PW407	0089_PW409	0089_PW411	0089_PW413	0089_PW415	0089_PW415	0089_PW415	0089_PW304	0089_PW345	0089_PW350	0089_PW351	0089_PW352	0089_PW368	0089_PW369
					Sample Type	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary
					Date	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	13 Jun 2025	13 Jun 2025	09 Jun 2025	09 Jun 2025	09 Jun 2025	13 Jun 2025	13 Jun 2025
					Field ID	0089_QC218_2	0089_PW407_2	0089_PW409_2	0089_PW411_2	0089_PW413_2	0089_PW415_2	0089_QC117_2	0089_QC217_2	0089_PW304_2	0089_PW345_2	0089_PW350_2	0089_PW351_2	0089_PW352_2	0089_PW368_2	0089_PW369_2
					Lab Report Number	50616 1233380	50616 EP2509632	50616 EP2509632	50616 EP2509632	50616 EP2509632	50616 EP2509632	50616 EP2509632	50616 1233380	50613 EP2509632	50613 EP2509632	50609 EP2509632	50609 EP2509632	50609 EP2509632	50613 EP2509632	50613 EP2509632
PFAS - Perfluoroalkyl Sulfonic Acids																				
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01				<0.01	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	0.03	0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01				<0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids																				
Perfluorobutanoic acid (PFBA)	µg/L	0.05				<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02				<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01				<0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01				<0.01	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01				<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01				<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide																				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02				<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02				<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02				<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids																				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01				<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01				<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01				<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums																				
PFAS (Sum of Total)	µg/L	0.01				<0.1	0.24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	0.04	<0.01	<0.01	0.03	0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01				<0.05	0.21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.04	<0.01	<0.01	0.03	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01				<0.01	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	0.03	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01				<0.01	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-

				Monitoring Zone	**WTP**		
				Location Code	0089_PW380	0089_PW381	0089_PW401
				Sample Type	Primary	Primary	Primary
				Date	09 Jun 2025	09 Jun 2025	09 Jun 2025
				Field ID	0089_PW380_250609	0089_PW381_250609	0089_PW401_250609
				Lab Report Number	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	PFAS NEMP / ANZH (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline			
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	0.01	<0.01	0.02
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05
PFAS - Sums							
PFAS (Sum of Total)	µg/L	0.01			0.01	<0.01	0.02
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.01	<0.01	0.02
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	0.01	<0.01	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-

Monitoring Zone				Demolition Ground				Dredged Sediments			Fire Training Area	
Location Code				0089_SW150	0089_SW152	0089_SW154	0089_SW156	0089_SW317	0089_SW318	0089_SW319	0089_SW130	0089_SW130
Sample Type				Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate
Date				11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025	13 Jun 2025	13 Jun 2025
Field ID				0089_SW150_250611	0089_SW152_250611	0089_SW154_250611	0089_SW156_250611	0089_SW317_250612	0089_SW318_250612	0089_SW319_250612	0089_SW130_250613	0089_QC112_250613
Lab Report Number				EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	PFAS NEMP / ANZG (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline								
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-

Monitoring Zone					Fire Training Area			Helicopter Support Facility					
Location Code					0089_SW130	0089_SW132	0089_SW134	0089_SW309	0089_SW310	0089_SW310	0089_SW310	0089_SW311	0089_SW406
Sample Type					Split Duplicate	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary
Date					13 Jun 2025	13 Jun 2025	13 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025
Field ID					0089_QC212_250613	0089_SW132_250613	0089_SW134_250613	0089_SW309_250616	0089_SW310_250616	0089_QC116_250616	0089_QC216_250616	0089_SW311_250616	0089_SW406_250616
Lab Report Number					1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	PFAS NEMP / ANZG (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline									
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-	-	<0.01	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-	-	<0.01	-	-

Monitoring Zone					Helicopter Support Facility					WWTP			
Location Code					0089_SW408	0089_SW410	0089_SW412	0089_SW414	0089_SW416	0089_SW305	0089_SW353	0089_SW370	0089_SW371
Sample Type					Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Date					16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	13 Jun 2025	09 Jun 2025	13 Jun 2025	13 Jun 2025
Field ID					0089_SW408_250616	0089_SW410_250616	0089_SW412_250616	0089_SW414_250616	0089_SW416_250616	0089_SW305_250613	0089_SW353_250609	0089_SW370_250613	0089_SW371_250613
Lab Report Number					EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**	PFAS NEMP / ANZG (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline									
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide													
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums													
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-	-	-	-	-

Analyte	Unit	LOR	PFAS NEMP / ANZG (2026) Interim Marine 99%	PFAS NEMP 2025 Recreational water quality guideline					
Monitoring Zone					WWTP				
Location Code					0089_SW372	0089_SW373	0089_SW382	0089_SW383	0089_SW384
Sample Type					Primary	Primary	Primary	Primary	Primary
Date					13 Jun 2025	13 Jun 2025	09 Jun 2025	09 Jun 2025	09 Jun 2025
Field ID					0089_SW372_250613	0089_SW373_250613	0089_SW382_250609	0089_SW383_250609	0089_SW384_250609
Lab Report Number					EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Monitoring Zone			**Accommodation Area**	**Demolition Ground**								**Dredged Sediments**				
Location Code			0089_SD346	0089_SD329	0089_SD329	0089_SD329	0089_SD330	0089_SD331	0089_SD356	0089_SD357	0089_SD358	0089_SD374	0089_SD375	0089_SD378	0089_SD378	0089_SD378
Sample Type			Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate
Date			17 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	11 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025	12 Jun 2025
Field ID			0089_SD346_250613	0089_SD329_250611	0089_QC109_250611	0089_QC209_250611	0089_SD330_250611	0089_SD331_250611	0089_SD356_250611	0089_SD357_250611	0089_SD358_250611	0089_SD374_250612	0089_SD375_250612	0089_SD378_250612	0089_QC110_250612	0089_QC210_250612
Lab Report Number			EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380
Analyte	**Unit**	**LOR**														
Inorganics																
Moisture (%)	%	0.1	30.4	15.3	16.3	17	19.6	20.4	34.7	21.8	25.2	21.0	9.6	16.4	11.5	18
PFAS - Perfluoroalkyl Sulfonic Acids																
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	0.0009	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.005
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Perfluoroalkyl Carboxylic Acids																
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Perfluoroalkyl Sulfonamide																
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
PFAS - Fluorotelomer Sulfonic Acids																
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005
PFAS - Sums																
PFAS (Sum of Total)	mg/kg	0.0002	0.0009	<0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	0.0009	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.005
Sum of PFHxS and PFOS	mg/kg	0.0002	0.0009	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.005

Statistics

* A Non Detect Multiplier of 0.5 has been applied.

Monitoring Zone			**Fire Training Area**								**Helicopter Support Facility**						
Location Code			0089_SD335	0089_SD335	0089_SD335	0089_SD340	0089_SD341	0089_SD362	0089_SD363	0089_SD364	0089_SD306	0089_SD307	0089_SD308	0089_SD314	0089_SD315	0089_SD316	0089_SD405
Sample Type			Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Date			13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025
Field ID			0089_SD335_250613	0089_QC113_250613	0089_QC213_250613	0089_SD340_250613	0089_SD341_250613	0089_SD362_250613	0089_SD363_250613	0089_SD364_250613	0089_SD306_250616	0089_SD307_250616	0089_SD308_250616	0089_SD314_250616	0089_SD315_250616	0089_SD316_250616	0089_SD405_250616
Lab Report Number			EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**															
Inorganics																	
Moisture (%)	%	0.1	15.8	31.2	15	21.1	21.3	11.3	23.8	20.6	20.3	22.0	9.6	13.2	17.4	18.4	22.0
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums																	
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

* A Non Detect Multiplier of 0.5 has been applied.

	Monitoring Zone		Helicopter Support Facility					WWTP									
	Location Code		0089_SD407	0089_SD409	0089_SD411	0089_SD413	0089_SD415	0089_SD304	0089_SD345	0089_SD345	0089_SD345	0089_SD350	0089_SD351	0089_SD352	0089_SD368	0089_SD369	0089_SD380
	Sample Type		Primary	Primary	Primary	Primary	Primary	Primary	Primary	Blind Duplicate	Split Duplicate	Primary	Primary	Primary	Primary	Primary	Primary
	Date		16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	16 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	13 Jun 2025	09 Jun 2025	09 Jun 2025	09 Jun 2025	13 Jun 2025	13 Jun 2025	09 Jun 2025
	Field ID		0089_SD407_ 250616	0089_SD409_ 250616	0089_SD411_ 250616	0089_SD413_ 250616	0089_SD415_ 250616	0089_SD304_ 250613	0089_SD345_ 250613	0089_QC114_ 250613	0089_QC214_ 250613	0089_SD350_ 250609	0089_SD351_ 250609	0089_SD352_ 250609	0089_SD368_ 250613	0089_SD369_ 250613	0089_SD380_ 250609
	Lab Report Number		EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	1233380	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632	EP2509632
Analyte	**Unit**	**LOR**															
Inorganics																	
Moisture (%)	%	0.1	12.7	17.4	10.2	13.8	10.4	24.1	25.7	22.9	25	23.2	16.2	14.9	32.7	25.7	11.7
PFAS - Perfluoroalkyl Sulfonic Acids																	
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids																	
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide																	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids																	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums																	
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.05	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-

Statistics

* A Non Detect Multiplier of 0.5 has been applied.

Monitoring Zone			**WWTP**	
Location Code			0089_SD381	0089_SD401
Sample Type			Primary	Primary
Date			09 Jun 2025	09 Jun 2025
Field ID			0089_SD381_250609	0089_SD401_250609
Lab Report Number			EP2509632	EP2509632
Analyte	**Unit**	**LOR**		
Inorganics				
Moisture (%)	%	0.1	16.5	16.4
PFAS - Perfluoroalkyl Sulfonic Acids				
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids				
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
PFAS - Sums				
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-

Statistics

* A Non Detect Multiplier of 0.5 has been applied.

Appendix D

Equipment calibration

Date of bump test	Site ID	Unit Brand/Model	Ambient Air Oxygen Calibration	Zero oxygen solution Calibration (%)	Standard Concentrations	Bump test reading	Bump test readings within ±3%?	Ambient Temperature (°C)	Comments	Test By (Name)	Tester's Signature
3/6/25	HMAS Shirley	YSI Pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: ~~4~~ 4.03 pH: 7.02 EC: ~~1408~~ 1453	pH 4.00: (± pH 0.12) Y N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	20°C	µS/cm very high still within range	[redacted]	[redacted]
4/6/25	HMAS Shirley	YSI pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: 4.11 pH: 7.08 EC: 1452	pH 4.00: (± pH 0.12) Y N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	18°C	Ms/cm very high still within range		
5/6/25	HMAS Shirley	YSI pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: 4.11 pH: 7.07 EC: 1499	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	19°C	Ms/cm outside 3%, approved SB 5/6/25 08:45		
6/6/25	HMAS Shirley	YSI pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: 4.10 pH: 7.11 EC: 1455	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	15°C	Bump test solution changed results lower but still out of range		
9/6/25	HMAS Shirley	YSI pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: 4.11 pH: 7.09 EC: 1420	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	13°C			
10/6/25	HMAS Shirley	YSI pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: 4.16 pH: 7.11 EC: 1443	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	18°C	pH 4 outside parameters pool cross contamination		
11/6/25	HMAS Shirley	YSI pro	100% Saturation Y N	0% Calibration Y N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: 4.05 pH: 7.10 EC: 1462	pH 4.00: (± pH 0.12) Y N pH 7.00: (± pH 0.12) Y N EC 1,413µS/cm (± 42.39µS/cm) Y / N	16°C	EC just outside 3%		

Date of bump test	Site ID	Unit Brand/Model	Ambient Air Oxygen Calibration	Zero oxygen solution Calibration (%)	Standard Concentrations	Bump test reading	Bump test readings within ±3%?	Ambient Temperature (°C)	Comments	Test By (Name)	Tester's Signature
12/6/25	HHAS Shirley	YSI Pro	100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 (Y) / N pH: 7.00 (Y) / N EC: 1,413µS/cm (Y) / N	pH: 4.01 pH: 7.01 EC: ~~1486~~ 1430	pH 4.00: (± pH 0.12) (Y) / N pH 7.00: (± pH 0.12) (Y) / N EC 1,413µS/cm (± 42.39µS/cm) (Y) / N	14°C		[redacted]	
13/6/25	HHAS Shirley	YSI Pro	100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 (Y) / N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) / N	pH: 4.02 pH: 7.07 EC: 1437	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) / N EC 1,413µS/cm (± 42.39µS/cm) (Y) N	15°C			
16/6/25	HHAS Shirley	YSI Pro	100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 (Y) / N pH: 7.00 (Y) / N EC: 1,413µS/cm (Y) / N	pH: 4.03 pH: 7.04 EC: 1439	pH 4.00: (± pH 0.12) (Y) / N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) Y / N	13°C	Just over on Ec		
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				

GK Environmental EQUIPMENT

Calibration Report

Multi-Parameter Water Quality Instrument

Customer:
Contact:

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 22F101914
Cable length: 1m (22B100428)

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	171.80 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 58.01
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 11 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (25B100392)	Check Temp NATA	Room Temp	18.3	0	°C	NA	18.3	°C
pH (25C)	pH 7.00	398528	7.01	-4.40	mV	7	7.01	pH
pH (25C)	pH 4.00	435813	4.00	167.40	mV	3.99	4.00	pH
Conductivity (25B100392)	2764 µs/cm at 25°C	25/2001	2764	GLP	4.94	2762	2764	µs/cm
ORP (22B)	Zobell A & B	24/1807	244	244	mV	234.3	232.8	mV
Zero DO (22A100300)	NaSO3 in distilled water	10175	0.0	NA	NA	0	0.0	%
100% DO (22A100300)	100% Air Saturation	Air	100.0	4.9	uA	99.7	100.0	%

Calibrated by: [redacted]

Calibration Date: 26-May-25
Next Due: 22-Nov-25

Appendix E

Laboratory certificates and chain of custody

CERTIFICATE OF ANALYSIS

Work Order	: **EP2509632**	Page	: 1 of 89
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Jun-2025 09:00
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 19-Jun-2025
C-O-C number	: 83715	Issue Date	: 28-Jun-2025 16:52
Sampler	: [redacted] [redacted]		
Site	: 0089		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 203		
No. of samples analysed	: 202		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: LOR has been raised for particular analytes on certain samples due to matrix interference.
- EP231X: High matrix spike and LCS recoveries deemed acceptable as all associated analytes are <LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250606	0089_MW112_250606	0089_MW500_250606	0089_MW120_250606	0089_MW121_250606
				Sampling date / time	06-Jun-2025 11:56	06-Jun-2025 09:37	06-Jun-2025 11:55	06-Jun-2025 09:35	06-Jun-2025 10:11
Compound	CAS Number	LOR	Unit		EP2509632-001	EP2509632-002	EP2509632-003	EP2509632-004	EP2509632-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	**0.27**	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.10**	**0.08**	**0.83**	<0.02	**0.08**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.35**	**0.30**	**1.12**	**0.04**	**0.13**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**6.51**	**7.70**	**13.2**	**1.25**	**1.99**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.30**	**2.26**	**2.50**	**0.37**	**0.13**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**2.07**	**31.5**	**50.4**	**3.34**	**9.08**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	**0.25**	**0.10**	<0.02	**0.02**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.04	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.3**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.10**	**0.20**	**0.60**	<0.02	**0.16**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.77**	**1.12**	**3.66**	**0.08**	**0.34**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.08**	**0.32**	**0.32**	<0.02	**0.12**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.20**	**1.40**	**1.07**	**0.10**	**0.12**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.03**	**0.02**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250606	0089_MW112_250606	0089_MW500_250606	0089_MW120_250606	0089_MW121_250606
				Sampling date / time	06-Jun-2025 11:56	06-Jun-2025 09:37	06-Jun-2025 11:55	06-Jun-2025 09:35	06-Jun-2025 10:11
Compound	CAS Number	LOR	Unit		EP2509632-001	EP2509632-002	EP2509632-003	EP2509632-004	EP2509632-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.35**	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.10**	**0.05**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**10.5**	**45.6**	**74.4**	**5.18**	**12.2**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**8.58**	**39.2**	**63.6**	**4.59**	**11.1**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**9.83**	**42.4**	**70.4**	**4.77**	**11.9**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**76.7**	**105**	**110**	**107**
13C8-PFOA	----	0.02	%		**88.4**	**101**	**99.5**	**88.9**	**84.1**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW123_250606	0089_MW124_250606	0089_MW125_250606	0089_MW126_250606	0089_MW127_250606
				Sampling date / time	06-Jun-2025 11:17	06-Jun-2025 13:16	06-Jun-2025 14:02	06-Jun-2025 14:20	06-Jun-2025 14:54
Compound	CAS Number	LOR	Unit		EP2509632-006	EP2509632-007	EP2509632-008	EP2509632-009	EP2509632-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.06**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.07**	<0.02	**0.02**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.48**	**0.01**	**0.15**	**0.02**	**0.02**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.07**	<0.01	**0.01**	**0.02**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	<0.02	**0.05**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW123_250606	0089_MW124_250606	0089_MW125_250606	0089_MW126_250606	0089_MW127_250606
				Sampling date / time	06-Jun-2025 11:17	06-Jun-2025 13:16	06-Jun-2025 14:02	06-Jun-2025 14:20	06-Jun-2025 14:54
Compound	CAS Number	LOR	Unit		EP2509632-006	EP2509632-007	EP2509632-008	EP2509632-009	EP2509632-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.78**	**0.01**	**0.23**	**0.04**	**0.02**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.55**	**0.01**	**0.16**	**0.04**	**0.02**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.71**	**0.01**	**0.21**	**0.04**	**0.02**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**115**	**108**	**107**	**107**	**108**
13C8-PFOA	----	0.02	%		**88.9**	**87.2**	**89.2**	**87.6**	**88.1**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW128_250606	0089_MW158_250606	0089_MW161_250609	0089_MW166_250609	0089_MW171_250609
				Sampling date / time	06-Jun-2025 08:26	09-Jun-2025 16:33	09-Jun-2025 16:03	09-Jun-2025 15:46	09-Jun-2025 15:25
Compound	CAS Number	LOR	Unit		EP2509632-011	EP2509632-012	EP2509632-013	EP2509632-014	EP2509632-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.96**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.03**	**0.08**	**1.61**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.06**	**1.21**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	<0.01	**0.18**	**2.52**	**6.95**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.02**	**0.89**	**1.04**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.85**	<0.01	**0.60**	**8.25**	**2.65**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.2**	**0.8**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.05**	**0.37**	**0.54**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.06**	<0.02	**0.06**	**0.43**	**2.44**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.02**	**0.18**	**0.21**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.02**	**0.24**	**0.39**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW128_250606	0089_MW158_250606	0089_MW161_250609	0089_MW166_250609	0089_MW171_250609
				Sampling date / time	06-Jun-2025 08:26	09-Jun-2025 16:33	09-Jun-2025 16:03	09-Jun-2025 15:46	09-Jun-2025 15:25
Compound	CAS Number	LOR	Unit		EP2509632-011	EP2509632-012	EP2509632-013	EP2509632-014	EP2509632-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.94**	<0.01	**0.98**	**13.2**	**18.8**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.88**	<0.01	**0.78**	**10.8**	**9.60**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.94**	<0.01	**0.96**	**12.3**	**15.6**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**89.8**	**102**	**108**	**101**	**104**
13C8-PFOA	----	0.02	%		**97.0**	**88.9**	**91.8**	**85.4**	**86.2**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW173_250610	0089_MW193_250610	0089_MW199_250610	0089_MW200_250610	0089_MW202_250610
				Sampling date / time	10-Jun-2025 08:58	10-Jun-2025 09:40	10-Jun-2025 14:40	10-Jun-2025 11:55	10-Jun-2025 14:10
Compound	CAS Number	LOR	Unit		EP2509632-016	EP2509632-017	EP2509632-018	EP2509632-019	EP2509632-020
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.03**	**0.08**	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.15**	**0.31**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.11**	**0.88**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.53**	**7.23**	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.28**	**0.52**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**2.49**	**1.61**	**0.02**	<0.01	**0.03**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.11**	**0.15**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.46**	**0.89**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.06**	**0.19**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.18**	**0.41**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW173_250610	0089_MW193_250610	0089_MW199_250610	0089_MW200_250610	0089_MW202_250610
				Sampling date / time	10-Jun-2025 08:58	10-Jun-2025 09:40	10-Jun-2025 14:40	10-Jun-2025 11:55	10-Jun-2025 14:10
Compound	CAS Number	LOR	Unit		EP2509632-016	EP2509632-017	EP2509632-018	EP2509632-019	EP2509632-020
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**5.40**	**12.3**	**0.02**	<0.01	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**4.02**	**8.84**	**0.02**	<0.01	**0.03**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**4.98**	**10.8**	**0.02**	<0.01	**0.03**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**106**	**112**	**107**	**102**
13C8-PFOA	----	0.02	%		**89.8**	**83.4**	**84.7**	**87.6**	**87.9**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW203_250610	0089_MW195D_250610	0089_MW468_250610	0089_MW288_250604	0089_MW289_250604
				Sampling date / time	10-Jun-2025 14:17	10-Jun-2025 10:31	10-Jun-2025 12:22	04-Jun-2025 16:24	04-Jun-2025 15:32
Compound	CAS Number	LOR	Unit		EP2509632-021	EP2509632-022	EP2509632-024	EP2509632-025	EP2509632-026
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.13**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.12**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	<0.01	<0.01	**0.05**	**0.76**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.16**	**1.19**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.15**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW203_250610	0089_MW195D_250610	0089_MW468_250610	0089_MW288_250604	0089_MW289_250604
				Sampling date / time	10-Jun-2025 14:17	10-Jun-2025 10:31	10-Jun-2025 12:22	04-Jun-2025 16:24	04-Jun-2025 15:32
Compound	CAS Number	LOR	Unit		EP2509632-021	EP2509632-022	EP2509632-024	EP2509632-025	EP2509632-026
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.04**	<0.01	<0.01	**0.21**	**2.51**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.04**	<0.01	<0.01	**0.21**	**1.95**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.04**	<0.01	<0.01	**0.21**	**2.34**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**108**	**106**	**106**	**93.5**	**93.1**
13C8-PFOA	----	0.02	%		**85.9**	**89.3**	**98.4**	**98.2**	**95.6**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250605	0089_MW215_250605	0089_MW216_250605	0089_MW217_250605	0089_MW220_250605
				Sampling date / time	05-Jun-2025 12:48	05-Jun-2025 13:09	05-Jun-2025 12:09	05-Jun-2025 11:39	05-Jun-2025 08:34
Compound	CAS Number	LOR	Unit		EP2509632-027	EP2509632-028	EP2509632-029	EP2509632-030	EP2509632-031
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	**0.06**	**0.05**	<0.02	**0.10**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.57**	**0.16**	<0.02	**0.34**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.98**	**0.14**	<0.02	**0.08**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**2.62**	**1.04**	**0.02**	**0.54**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.02**	**0.02**	<0.02	**0.03**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.23**	**0.07**	**7.39**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	**2.4**	**2.0**	**0.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.20**	**8.44**	**9.65**	**0.48**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**1.83**	**6.56**	**4.00**	**0.72**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.25**	**0.78**	**1.00**	**0.11**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.08**	**0.12**	**0.29**	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.03**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250605	0089_MW215_250605	0089_MW216_250605	0089_MW217_250605	0089_MW220_250605
				Sampling date / time	05-Jun-2025 12:48	05-Jun-2025 13:09	05-Jun-2025 12:09	05-Jun-2025 11:39	05-Jun-2025 08:34
Compound	CAS Number	LOR	Unit		EP2509632-027	EP2509632-028	EP2509632-029	EP2509632-030	EP2509632-031
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**3.60**	**15.4**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	**0.24**	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**6.71**	**23.5**	**32.7**	**10.1**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**2.62**	**1.27**	**0.09**	**7.93**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**5.65**	**23.3**	**32.7**	**9.84**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.7**	**118**	**95.5**	**93.3**	**102**
13C8-PFOA	----	0.02	%		**96.1**	**102**	**101**	**94.6**	**99.9**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW224_250605	0089_MW225_250605	0089_MW226_250605	0089_MW227_250605	0089_MW228_250605
				Sampling date / time	05-Jun-2025 08:42	05-Jun-2025 14:01	05-Jun-2025 14:55	05-Jun-2025 16:02	05-Jun-2025 15:46
Compound	CAS Number	LOR	Unit		EP2509632-032	EP2509632-033	EP2509632-034	EP2509632-035	EP2509632-036
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.46**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.28**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	**0.02**	<0.01	**0.86**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	<0.01	<0.01	<0.01	**0.03**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**1.7**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**6.33**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**6.29**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**1.34**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.22**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW224_250605	0089_MW225_250605	0089_MW226_250605	0089_MW227_250605	0089_MW228_250605
				Sampling date / time	05-Jun-2025 08:42	05-Jun-2025 14:01	05-Jun-2025 14:55	05-Jun-2025 16:02	05-Jun-2025 15:46
Compound	CAS Number	LOR	Unit		EP2509632-032	EP2509632-033	EP2509632-034	EP2509632-035	EP2509632-036
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.38**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	<0.01	**0.02**	<0.01	**18.0**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	<0.01	**0.02**	<0.01	**0.89**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	<0.01	**0.02**	<0.01	**17.6**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.6**	**97.8**	**96.7**	**102**	**99.0**
13C8-PFOA	----	0.02	%		**101**	**102**	**100**	**96.9**	**96.8**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW282_250605	0089_MW268_250603	0089_MW269_250603	0089_MW233_250612	0089_MW236_250612
				Sampling date / time	05-Jun-2025 08:44	03-Jun-2025 16:36	03-Jun-2025 16:27	12-Jun-2025 14:24	12-Jun-2025 14:11
Compound	CAS Number	LOR	Unit		EP2509632-037	EP2509632-038	EP2509632-039	EP2509632-040	EP2509632-041
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.58**	**0.09**	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**2.43**	**0.25**	**0.05**	<0.02	**0.08**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**4.59**	**0.27**	**0.05**	<0.02	**0.16**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**55.1**	**0.85**	**0.52**	<0.01	**10.8**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**5.77**	<0.02	<0.02	<0.02	**0.53**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**73.0**	**0.02**	**0.36**	**0.06**	**50.7**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.04	<0.02	<0.02	<0.02	<0.04
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.9**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**1.86**	**0.05**	**0.03**	<0.02	**0.09**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**9.21**	**0.26**	**0.09**	<0.02	**0.46**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**2.30**	<0.02	<0.02	<0.02	**0.15**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**7.57**	**0.01**	**0.02**	<0.01	**2.21**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**1.74**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW282_250605	0089_MW268_250603	0089_MW269_250603	0089_MW233_250612	0089_MW236_250612
				Sampling date / time	05-Jun-2025 08:44	03-Jun-2025 16:36	03-Jun-2025 16:27	12-Jun-2025 14:24	12-Jun-2025 14:11
Compound	CAS Number	LOR	Unit		EP2509632-037	EP2509632-038	EP2509632-039	EP2509632-040	EP2509632-041
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**163**	**1.80**	**1.12**	**0.06**	**66.9**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**128**	**0.87**	**0.88**	**0.06**	**61.5**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**152**	**1.44**	**1.07**	**0.06**	**64.5**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.0**	**99.8**	**102**	**99.3**	**104**
13C8-PFOA	----	0.02	%		**104**	**99.1**	**98.6**	**100**	**96.3**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW238_250612	0089_MW240_250612	0089_MW242_250604	0089_MW243_250612	0089_MW245_250612
				Sampling date / time	12-Jun-2025 14:09	12-Jun-2025 14:07	04-Jun-2025 16:20	12-Jun-2025 14:10	12-Jun-2025 14:10
Compound	CAS Number	LOR	Unit		EP2509632-042	EP2509632-043	EP2509632-044	EP2509632-045	EP2509632-046
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	**0.11**	<0.01	**0.03**	**0.03**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.01**	**0.03**	**0.15**	**0.01**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW238_250612	0089_MW240_250612	0089_MW242_250604	0089_MW243_250612	0089_MW245_250612
				Sampling date / time	12-Jun-2025 14:09	12-Jun-2025 14:07	04-Jun-2025 16:20	12-Jun-2025 14:10	12-Jun-2025 14:10
Compound	CAS Number	LOR	Unit		EP2509632-042	EP2509632-043	EP2509632-044	EP2509632-045	EP2509632-046
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.05**	**0.12**	**0.03**	**0.18**	**0.04**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**0.12**	**0.03**	**0.18**	**0.04**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.05**	**0.12**	**0.03**	**0.18**	**0.04**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**95.0**	**103**	**95.2**	**112**
13C8-PFOA	----	0.02	%		**99.0**	**95.3**	**98.2**	**99.3**	**98.5**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW249_250604	0089_MW496_250604	0089_MW516_250604	0089_MW255_250603	0089_MW256_250603
				Sampling date / time	04-Jun-2025 16:25	03-Jun-2025 16:29	04-Jun-2025 16:28	03-Jun-2025 16:31	03-Jun-2025 16:38
Compound	CAS Number	LOR	Unit		EP2509632-047	EP2509632-048	EP2509632-049	EP2509632-050	EP2509632-051
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.19**	**0.37**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.05**	<0.02	**0.58**	**1.65**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.07**	**0.04**	**0.53**	**2.82**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.14**	**1.10**	**0.93**	**2.46**	**10.2**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.10**	**0.03**	<0.02	**0.35**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**7.59**	**10.4**	**0.24**	**19.4**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.29**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.2**	**0.4**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.24**	**0.83**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	**0.15**	**0.05**	**1.08**	**4.28**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	<0.02	**0.07**	**0.43**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.10**	**0.03**	**0.03**	**0.50**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW249_250604	0089_MW496_250604	0089_MW516_250604	0089_MW255_250603	0089_MW256_250603
				Sampling date / time	04-Jun-2025 16:25	03-Jun-2025 16:29	04-Jun-2025 16:28	03-Jun-2025 16:31	03-Jun-2025 16:38
Compound	CAS Number	LOR	Unit		EP2509632-047	EP2509632-048	EP2509632-049	EP2509632-050	EP2509632-051
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.05**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.27**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.18**	**9.19**	**11.5**	**5.62**	**41.9**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.16**	**8.69**	**11.3**	**2.70**	**29.6**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.18**	**9.02**	**11.4**	**4.90**	**38.0**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**89.6**	**96.8**	**90.8**	**115**
13C8-PFOA	----	0.02	%		**99.7**	**94.4**	**93.5**	**96.5**	**108**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW257_250603	0089_MW258_250603	0089_MW259_250603	0089_MW553_250603	0089_MW010_250603
				Sampling date / time	03-Jun-2025 16:39	03-Jun-2025 16:37	03-Jun-2025 16:35	03-Jun-2025 16:33	03-Jun-2025 16:34
Compound	CAS Number	LOR	Unit		EP2509632-052	EP2509632-053	EP2509632-054	EP2509632-055	EP2509632-056
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	**1.70**	**0.03**	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**5.04**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**4.68**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.27**	**16.2**	**0.05**	**0.02**	**0.05**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.02**	**1.19**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.27**	**11.0**	**0.09**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**1.3**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.13**	**2.10**	**0.02**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.10**	**9.08**	**0.02**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.93**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	**0.83**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW257_250603	0089_MW258_250603	0089_MW259_250603	0089_MW553_250603	0089_MW010_250603
				Sampling date / time	03-Jun-2025 16:39	03-Jun-2025 16:37	03-Jun-2025 16:35	03-Jun-2025 16:33	03-Jun-2025 16:34
Compound	CAS Number	LOR	Unit		EP2509632-052	EP2509632-053	EP2509632-054	EP2509632-055	EP2509632-056
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.13**	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.82**	**54.2**	**0.21**	**0.02**	**0.05**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.54**	**27.2**	**0.14**	**0.02**	**0.05**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.80**	**46.6**	**0.18**	**0.02**	**0.05**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**87.5**	**95.6**	**112**	**86.5**	**89.8**
13C8-PFOA	----	0.02	%		**97.4**	**100**	**105**	**95.3**	**96.8**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW139_250611	0089_MW141_250611	0089_MW142_250611	0089_MW147_250611	0089_MW149_250611
				Sampling date / time	11-Jun-2025 08:49	11-Jun-2025 09:47	11-Jun-2025 10:03	11-Jun-2025 09:20	11-Jun-2025 09:50
Compound	CAS Number	LOR	Unit		EP2509632-057	EP2509632-058	EP2509632-059	EP2509632-060	EP2509632-061
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	**0.10**	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.37**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.71**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**12.7**	**0.19**	**0.05**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.77**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**36.7**	**0.55**	**0.03**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	**0.09**	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.97**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**8.78**	**0.06**	**0.03**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.25**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**1.16**	**0.02**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW139_250611	0089_MW141_250611	0089_MW142_250611	0089_MW147_250611	0089_MW149_250611
				Sampling date / time	11-Jun-2025 08:49	11-Jun-2025 09:47	11-Jun-2025 10:03	11-Jun-2025 09:20	11-Jun-2025 09:50
Compound	CAS Number	LOR	Unit		EP2509632-057	EP2509632-058	EP2509632-059	EP2509632-060	EP2509632-061
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**62.8**	**0.82**	**0.11**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**49.4**	**0.74**	**0.08**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**61.1**	**0.82**	**0.11**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.4**	**91.8**	**87.1**	**90.6**	**92.6**
13C8-PFOA	----	0.02	%		**106**	**96.4**	**97.3**	**96.4**	**94.0**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC100_250603	0089_QC101_250603	0089_QC102_250604	0089_QC103_250604	0089_QC104_250605
				Sampling date / time	04-Jun-2025 16:41	03-Jun-2025 16:43	04-Jun-2025 16:45	04-Jun-2025 16:48	05-Jun-2025 10:21
Compound	CAS Number	LOR	Unit		EP2509632-167	EP2509632-168	EP2509632-169	EP2509632-170	EP2509632-171
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.71**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.04**	<0.02	<0.02	**2.90**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.05**	<0.02	<0.02	**9.11**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	**0.51**	**0.13**	**0.25**	**59.4**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**6.41**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.35**	**0.02**	**0.27**	**46.4**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.04
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**1.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	**2.08**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.09**	**0.02**	<0.02	**13.4**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**2.98**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	**7.34**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC100_250603	0089_QC101_250603	0089_QC102_250604	0089_QC103_250604	0089_QC104_250605
				Sampling date / time	04-Jun-2025 16:41	03-Jun-2025 16:43	04-Jun-2025 16:45	04-Jun-2025 16:48	05-Jun-2025 10:21
Compound	CAS Number	LOR	Unit		EP2509632-167	EP2509632-168	EP2509632-169	EP2509632-170	EP2509632-171
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.06**	**1.09**	**0.17**	**0.52**	**152**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.06**	**0.86**	**0.15**	**0.52**	**106**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.06**	**1.04**	**0.17**	**0.52**	**136**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**107**	**110**	**103**	**101**
13C8-PFOA	----	0.02	%		**104**	**108**	**105**	**103**	**99.9**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC105_250606	0089_QC106_250609	0089_QC107_250611	0089_QC108_250611	0089_QC117_250616
				Sampling date / time	06-Jun-2025 09:36	09-Jun-2025 15:27	11-Jun-2025 08:50	11-Jun-2025 14:24	16-Jun-2025 14:22
Compound	CAS Number	LOR	Unit		EP2509632-174	EP2509632-179	EP2509632-182	EP2509632-183	EP2509632-198
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	**1.12**	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**1.55**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	**1.02**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.30**	**7.26**	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.40**	**0.94**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**3.53**	**2.73**	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.7**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.65**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.08**	**2.32**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.21**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.10**	**0.41**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC105_250606	0089_QC106_250609	0089_QC107_250611	0089_QC108_250611	0089_QC117_250616
				Sampling date / time	06-Jun-2025 09:36	09-Jun-2025 15:27	11-Jun-2025 08:50	11-Jun-2025 14:24	16-Jun-2025 14:22
Compound	CAS Number	LOR	Unit		EP2509632-174	EP2509632-179	EP2509632-182	EP2509632-183	EP2509632-198
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**5.45**	**18.9**	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**4.83**	**9.99**	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**5.01**	**15.8**	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**103**	**101**	**103**	**109**
13C8-PFOA	----	0.02	%		**106**	**105**	**103**	**104**	**101**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC118_250616	0089_PW346_250613	----	----	----
				Sampling date / time	16-Jun-2025 16:40	17-Jun-2025 16:56	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-199	EP2509632-202	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.02**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.03**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.15**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**1.31**	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.10**	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.14**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC118_250616	0089_PW346_250613	----	----	----
				Sampling date / time	16-Jun-2025 16:40	17-Jun-2025 16:56	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-199	EP2509632-202	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**1.77**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**1.46**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**1.74**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	**108**	----	----	----
13C8-PFOA	----	0.02	%		**106**	**101**	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC300_250603	0089_QC301_250604	0089_QC400_250603	0089_QC401_250604	0089_QC302_250605
				Sampling date / time	03-Jun-2025 16:10	04-Jun-2025 16:19	04-Jun-2025 16:16	04-Jun-2025 16:17	05-Jun-2025 16:59
Compound	CAS Number	LOR	Unit		EP2509632-163	EP2509632-164	EP2509632-165	EP2509632-166	EP2509632-172
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC300_250603	0089_QC301_250604	0089_QC400_250603	0089_QC401_250604	0089_QC302_250605
				Sampling date / time	03-Jun-2025 16:10	04-Jun-2025 16:19	04-Jun-2025 16:16	04-Jun-2025 16:17	05-Jun-2025 16:59
Compound	CAS Number	LOR	Unit		EP2509632-163	EP2509632-164	EP2509632-165	EP2509632-166	EP2509632-172
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**109**	**103**	**107**	**101**
13C8-PFOA	----	0.02	%		**102**	**110**	**112**	**99.7**	**107**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC402_250605	0089_QC303_250606	0089_QC403_250606	0089_QC304_250609	0089_QC404_250609
				Sampling date / time	05-Jun-2025 17:00	06-Jun-2025 15:21	06-Jun-2025 15:22	09-Jun-2025 14:41	09-Jun-2025 14:43
Compound	CAS Number	LOR	Unit		EP2509632-173	EP2509632-175	EP2509632-176	EP2509632-177	EP2509632-178
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC402_250605	0089_QC303_250606	0089_QC403_250606	0089_QC304_250609	0089_QC404_250609
				Sampling date / time	05-Jun-2025 17:00	06-Jun-2025 15:21	06-Jun-2025 15:22	09-Jun-2025 14:41	09-Jun-2025 14:43
Compound	CAS Number	LOR	Unit		EP2509632-173	EP2509632-175	EP2509632-176	EP2509632-177	EP2509632-178
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**105**	**102**	**101**	**103**
13C8-PFOA	----	0.02	%		**106**	**105**	**103**	**102**	**106**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC405_250610	0089_QC305_250610	0089_QC306_250611	0089_QC406_250611	0089_QC307_250612
				Sampling date / time	10-Jun-2025 15:02	10-Jun-2025 15:03	11-Jun-2025 15:07	11-Jun-2025 15:09	12-Jun-2025 16:34
Compound	CAS Number	LOR	Unit		EP2509632-180	EP2509632-181	EP2509632-185	EP2509632-186	EP2509632-189
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC405_250610	0089_QC305_250610	0089_QC306_250611	0089_QC406_250611	0089_QC307_250612
				Sampling date / time	10-Jun-2025 15:02	10-Jun-2025 15:03	11-Jun-2025 15:07	11-Jun-2025 15:09	12-Jun-2025 16:34
Compound	CAS Number	LOR	Unit		EP2509632-180	EP2509632-181	EP2509632-185	EP2509632-186	EP2509632-189
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**105**	**105**	**110**	**106**
13C8-PFOA	----	0.02	%		**103**	**106**	**102**	**104**	**106**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC407_250612	0089_QC308_250613	0089_QC408_250613	0089_QC309_250616	0089_QC409_250616
				Sampling date / time	12-Jun-2025 16:34	13-Jun-2025 15:35	13-Jun-2025 15:36	16-Jun-2025 17:08	16-Jun-2025 17:09
Compound	CAS Number	LOR	Unit		EP2509632-190	EP2509632-194	EP2509632-195	EP2509632-200	EP2509632-201
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0089_QC407_250612	0089_QC308_250613	0089_QC408_250613	0089_QC309_250616	0089_QC409_250616
				Sampling date / time	12-Jun-2025 16:34	13-Jun-2025 15:35	13-Jun-2025 15:36	16-Jun-2025 17:08	16-Jun-2025 17:09
Compound	CAS Number	LOR	Unit		EP2509632-190	EP2509632-194	EP2509632-195	EP2509632-200	EP2509632-201
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.2**	**108**	**108**	**106**	**110**
13C8-PFOA	----	0.02	%		**103**	**100**	**107**	**105**	**104**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_250613	0089_SD340_250613	0089_SD341_250613	0089_SD362_250613	0089_SD363_250613
				Sampling date / time	13-Jun-2025 08:48	13-Jun-2025 11:19	13-Jun-2025 11:19	13-Jun-2025 11:20	13-Jun-2025 11:20
Compound	CAS Number	LOR	Unit		EP2509632-062	EP2509632-063	EP2509632-064	EP2509632-065	EP2509632-066
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**15.8**	**21.1**	**21.3**	**11.3**	**23.8**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_250613	0089_SD340_250613	0089_SD341_250613	0089_SD362_250613	0089_SD363_250613
				Sampling date / time	13-Jun-2025 08:48	13-Jun-2025 11:19	13-Jun-2025 11:19	13-Jun-2025 11:20	13-Jun-2025 11:20
Compound	CAS Number	LOR	Unit		EP2509632-062	EP2509632-063	EP2509632-064	EP2509632-065	EP2509632-066
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**109**	**114**	**107**	**118**	**108**
13C8-PFOA	----	0.0002	%		**111**	**104**	**118**	**111**	**107**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_250613	0089_SD329_250611	0089_SD330_250611	0089_SD331_250611	0089_SD356_250611
				Sampling date / time	13-Jun-2025 11:21	11-Jun-2025 14:20	11-Jun-2025 14:21	11-Jun-2025 14:21	11-Jun-2025 14:22
Compound	CAS Number	LOR	Unit		EP2509632-067	EP2509632-068	EP2509632-069	EP2509632-070	EP2509632-071
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**20.6**	**15.3**	**19.6**	**20.4**	**34.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_250613	0089_SD329_250611	0089_SD330_250611	0089_SD331_250611	0089_SD356_250611
				Sampling date / time	13-Jun-2025 11:21	11-Jun-2025 14:20	11-Jun-2025 14:21	11-Jun-2025 14:21	11-Jun-2025 14:22
Compound	CAS Number	LOR	Unit		EP2509632-067	EP2509632-068	EP2509632-069	EP2509632-070	EP2509632-071
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**119**	**123**	**108**	**122**	**122**
13C8-PFOA	----	0.0002	%		**108**	**102**	**107**	**106**	**106**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD357_250611	0089_SD358_250611	0089_SD304_250613	0089_SD345_250613	0089_SD368_250613
				Sampling date / time	11-Jun-2025 14:22	11-Jun-2025 14:23	13-Jun-2025 15:23	13-Jun-2025 13:17	13-Jun-2025 15:24
Compound	CAS Number	LOR	Unit		EP2509632-072	EP2509632-073	EP2509632-074	EP2509632-075	EP2509632-076
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**21.8**	**25.2**	**24.1**	**25.7**	**32.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD357_250611	0089_SD358_250611	0089_SD304_250613	0089_SD345_250613	0089_SD368_250613
				Sampling date / time	11-Jun-2025 14:22	11-Jun-2025 14:23	13-Jun-2025 15:23	13-Jun-2025 13:17	13-Jun-2025 15:24
Compound	CAS Number	LOR	Unit		EP2509632-072	EP2509632-073	EP2509632-074	EP2509632-075	EP2509632-076
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**104**	**104**	**112**	**113**	**104**
13C8-PFOA	----	0.0002	%		**110**	**108**	**119**	**110**	**117**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD369_250613	0089_SD350_250609	0089_SD351_250609	0089_SD352_250609	0089_SD380_250609
				Sampling date / time	13-Jun-2025 13:16	09-Jun-2025 10:14	09-Jun-2025 12:15	09-Jun-2025 13:20	09-Jun-2025 11:53
Compound	CAS Number	LOR	Unit		EP2509632-077	EP2509632-078	EP2509632-079	EP2509632-080	EP2509632-081
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**25.7**	**23.2**	**16.2**	**14.9**	**11.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD369_250613	0089_SD350_250609	0089_SD351_250609	0089_SD352_250609	0089_SD380_250609
				Sampling date / time	13-Jun-2025 13:16	09-Jun-2025 10:14	09-Jun-2025 12:15	09-Jun-2025 13:20	09-Jun-2025 11:53
Compound	CAS Number	LOR	Unit		EP2509632-077	EP2509632-078	EP2509632-079	EP2509632-080	EP2509632-081
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**100**	**117**	**113**	**115**	**106**
13C8-PFOA	----	0.0002	%		**107**	**108**	**110**	**108**	**110**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD381_250609	0089_SD401_250609	0089_SD306_250616	0089_SD307_250616	0089_SD308_250616
				Sampling date / time	09-Jun-2025 12:57	09-Jun-2025 11:16	16-Jun-2025 08:55	16-Jun-2025 10:58	16-Jun-2025 12:04
Compound	CAS Number	LOR	Unit		EP2509632-082	EP2509632-083	EP2509632-084	EP2509632-085	EP2509632-086
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**16.5**	**16.4**	**20.3**	**22.0**	**9.6**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD381_250609	0089_SD401_250609	0089_SD306_250616	0089_SD307_250616	0089_SD308_250616
				Sampling date / time	09-Jun-2025 12:57	09-Jun-2025 11:16	16-Jun-2025 08:55	16-Jun-2025 10:58	16-Jun-2025 12:04
Compound	CAS Number	LOR	Unit		EP2509632-082	EP2509632-083	EP2509632-084	EP2509632-085	EP2509632-086
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**106**	**106**	**101**	**99.0**	**115**
13C8-PFOA	----	0.0002	%		**106**	**106**	**108**	**107**	**103**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD314_250616	0089_SD315_250616	0089_SD316_250616	0089_SD405_250616	0089_SD407_250616
				Sampling date / time	16-Jun-2025 09:54	16-Jun-2025 10:21	16-Jun-2025 11:40	16-Jun-2025 16:38	16-Jun-2025 16:18
Compound	CAS Number	LOR	Unit		EP2509632-087	EP2509632-088	EP2509632-089	EP2509632-090	EP2509632-091
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**13.2**	**17.4**	**18.4**	**22.0**	**12.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD314_250616	0089_SD315_250616	0089_SD316_250616	0089_SD405_250616	0089_SD407_250616
				Sampling date / time	16-Jun-2025 09:54	16-Jun-2025 10:21	16-Jun-2025 11:40	16-Jun-2025 16:38	16-Jun-2025 16:18
Compound	CAS Number	LOR	Unit		EP2509632-087	EP2509632-088	EP2509632-089	EP2509632-090	EP2509632-091
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**104**	**116**	**106**	**110**	**111**
13C8-PFOA	----	0.0002	%		**108**	**104**	**108**	**107**	**108**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD409_250616	0089_SD411_250616	0089_SD413_250616	0089_SD415_250616	0089_SD374_250612
				Sampling date / time	16-Jun-2025 15:25	16-Jun-2025 14:42	16-Jun-2025 14:20	16-Jun-2025 14:14	12-Jun-2025 16:25
Compound	CAS Number	LOR	Unit		EP2509632-092	EP2509632-093	EP2509632-094	EP2509632-095	EP2509632-096
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**17.4**	**10.2**	**13.8**	**10.4**	**21.0**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD409_250616	0089_SD411_250616	0089_SD413_250616	0089_SD415_250616	0089_SD374_250612
				Sampling date / time	16-Jun-2025 15:25	16-Jun-2025 14:42	16-Jun-2025 14:20	16-Jun-2025 14:14	12-Jun-2025 16:25
Compound	CAS Number	LOR	Unit		EP2509632-092	EP2509632-093	EP2509632-094	EP2509632-095	EP2509632-096
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**121**	**113**	**110**	**108**	**112**
13C8-PFOA	----	0.0002	%		**110**	**110**	**107**	**108**	**110**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD375_250612	0089_SD378_250612	0089_QC113_250613	0089_QC114_250613	0089_SD346_250613
				Sampling date / time	12-Jun-2025 16:24	12-Jun-2025 16:24	13-Jun-2025 08:50	13-Jun-2025 13:18	17-Jun-2025 17:10
Compound	CAS Number	LOR	Unit		EP2509632-097	EP2509632-098	EP2509632-191	EP2509632-193	EP2509632-203
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**9.6**	**16.4**	**31.2**	**22.9**	**30.4**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0009**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD375_250612	0089_SD378_250612	0089_QC113_250613	0089_QC114_250613	0089_SD346_250613
				Sampling date / time	12-Jun-2025 16:24	12-Jun-2025 16:24	13-Jun-2025 08:50	13-Jun-2025 13:18	17-Jun-2025 17:10
Compound	CAS Number	LOR	Unit		EP2509632-097	EP2509632-098	EP2509632-191	EP2509632-193	EP2509632-203
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0009**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0009**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0009**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**98.0**	**110**	**108**	**116**	**115**
13C8-PFOA	----	0.0002	%		**109**	**106**	**111**	**106**	**106**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0089_QC109_250611	0089_QC110_250612	----	----	----
				Sampling date / time	11-Jun-2025 14:26	12-Jun-2025 16:31	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-184	EP2509632-187	--------	--------	--------
					Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**16.3**	**11.5**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0089_QC109_250611	0089_QC110_250612	----	----	----
				Sampling date / time	11-Jun-2025 14:26	12-Jun-2025 16:31	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-184	EP2509632-187	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**104**	**106**	----	----	----
13C8-PFOA	----	0.0002	%		**108**	**106**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250613	0089_SW132_250613	0089_SW134_250613	0089_SW150_250611	0089_SW152_250611
				Sampling date / time	13-Jun-2025 08:51	13-Jun-2025 11:22	13-Jun-2025 11:22	11-Jun-2025 14:29	11-Jun-2025 14:28
Compound	CAS Number	LOR	Unit		EP2509632-099	EP2509632-100	EP2509632-101	EP2509632-102	EP2509632-103
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250613	0089_SW132_250613	0089_SW134_250613	0089_SW150_250611	0089_SW152_250611
				Sampling date / time	13-Jun-2025 08:51	13-Jun-2025 11:22	13-Jun-2025 11:22	11-Jun-2025 14:29	11-Jun-2025 14:28
Compound	CAS Number	LOR	Unit		EP2509632-099	EP2509632-100	EP2509632-101	EP2509632-102	EP2509632-103
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.3**	**90.9**	**97.6**	**94.0**	**90.5**
13C8-PFOA	----	0.02	%		**98.4**	**95.4**	**93.6**	**96.6**	**95.6**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW154_250611	0089_SW156_250611	0089_SW305_250613	0089_SW370_250613	0089_SW371_250613
				Sampling date / time	11-Jun-2025 14:28	11-Jun-2025 14:29	13-Jun-2025 15:25	13-Jun-2025 13:13	13-Jun-2025 15:26
Compound	CAS Number	LOR	Unit		EP2509632-104	EP2509632-105	EP2509632-106	EP2509632-107	EP2509632-108
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW154_250611	0089_SW156_250611	0089_SW305_250613	0089_SW370_250613	0089_SW371_250613
				Sampling date / time	11-Jun-2025 14:28	11-Jun-2025 14:29	13-Jun-2025 15:25	13-Jun-2025 13:13	13-Jun-2025 15:26
Compound	CAS Number	LOR	Unit		EP2509632-104	EP2509632-105	EP2509632-106	EP2509632-107	EP2509632-108
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**92.1**	**95.9**	**106**	**96.8**	**94.3**
13C8-PFOA	----	0.02	%		**93.8**	**94.3**	**105**	**93.7**	**94.0**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW372_250613	0089_SW373_250613	0089_SW353_250609	0089_SW382_250609	0089_SW383_250609
				Sampling date / time	13-Jun-2025 15:27	13-Jun-2025 15:26	09-Jun-2025 10:13	09-Jun-2025 13:19	09-Jun-2025 11:35
Compound	CAS Number	LOR	Unit		EP2509632-109	EP2509632-110	EP2509632-111	EP2509632-112	EP2509632-113
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW372_250613	0089_SW373_250613	0089_SW353_250609	0089_SW382_250609	0089_SW383_250609
				Sampling date / time	13-Jun-2025 15:27	13-Jun-2025 15:26	09-Jun-2025 10:13	09-Jun-2025 13:19	09-Jun-2025 11:35
Compound	CAS Number	LOR	Unit		EP2509632-109	EP2509632-110	EP2509632-111	EP2509632-112	EP2509632-113
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**98.2**	**94.0**	**97.8**	**92.1**
13C8-PFOA	----	0.02	%		**101**	**95.2**	**94.6**	**110**	**94.0**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW384_250609	0089_SW309_250616	0089_SW310_250616	0089_SW311_250616	0089_SW406_250616
				Sampling date / time	09-Jun-2025 11:09	16-Jun-2025 08:55	16-Jun-2025 10:22	16-Jun-2025 12:05	16-Jun-2025 16:58
Compound	CAS Number	LOR	Unit		EP2509632-114	EP2509632-115	EP2509632-116	EP2509632-117	EP2509632-118
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW384_250609	0089_SW309_250616	0089_SW310_250616	0089_SW311_250616	0089_SW406_250616
				Sampling date / time	09-Jun-2025 11:09	16-Jun-2025 08:55	16-Jun-2025 10:22	16-Jun-2025 12:05	16-Jun-2025 16:58
Compound	CAS Number	LOR	Unit		EP2509632-114	EP2509632-115	EP2509632-116	EP2509632-117	EP2509632-118
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.3**	**95.9**	**93.1**	**92.5**	**98.7**
13C8-PFOA	----	0.02	%		**94.2**	**95.4**	**94.7**	**93.9**	**95.9**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW408_250616	0089_SW410_250616	0089_SW412_250616	0089_SW414_250616	0089_SW416_250616
				Sampling date / time	16-Jun-2025 16:17	16-Jun-2025 15:26	16-Jun-2025 14:42	16-Jun-2025 14:20	16-Jun-2025 14:15
Compound	CAS Number	LOR	Unit		EP2509632-119	EP2509632-120	EP2509632-121	EP2509632-122	EP2509632-123
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW408_250616	0089_SW410_250616	0089_SW412_250616	0089_SW414_250616	0089_SW416_250616
				Sampling date / time	16-Jun-2025 16:17	16-Jun-2025 15:26	16-Jun-2025 14:42	16-Jun-2025 14:20	16-Jun-2025 14:15
Compound	CAS Number	LOR	Unit		EP2509632-119	EP2509632-120	EP2509632-121	EP2509632-122	EP2509632-123
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**92.1**	**101**	**91.3**	**94.6**	**95.4**
13C8-PFOA	----	0.02	%		**93.7**	**108**	**93.8**	**95.7**	**95.1**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW317_250612	0089_SW318_250612	0089_SW319_250612	0089_QC111_250612	0089_QC112_250613
				Sampling date / time	12-Jun-2025 16:26	12-Jun-2025 16:26	12-Jun-2025 16:27	12-Jun-2025 16:32	13-Jun-2025 08:52
Compound	CAS Number	LOR	Unit		EP2509632-124	EP2509632-125	EP2509632-126	EP2509632-188	EP2509632-192
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW317_250612	0089_SW318_250612	0089_SW319_250612	0089_QC111_250612	0089_QC112_250613
				Sampling date / time	12-Jun-2025 16:26	12-Jun-2025 16:26	12-Jun-2025 16:27	12-Jun-2025 16:32	13-Jun-2025 08:52
Compound	CAS Number	LOR	Unit		EP2509632-124	EP2509632-125	EP2509632-126	EP2509632-188	EP2509632-192
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**108**	**106**	**100**	**100**
13C8-PFOA	----	0.02	%		**108**	**104**	**106**	**102**	**104**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC116_250616	0089_QC115_250616	----	----	----
				Sampling date / time	16-Jun-2025 10:25	16-Jun-2025 10:32	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-196	EP2509632-197	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC116_250616	0089_QC115_250616	----	----	----
				Sampling date / time	16-Jun-2025 10:25	16-Jun-2025 10:32	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-196	EP2509632-197	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**106**	----	----	----
13C8-PFOA	----	0.02	%		**106**	**108**	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW335_250613	0089_PW340_250613	0089_PW341_250613	0089_PW362_25613	0089_PW363_250613
				Sampling date / time	13-Jun-2025 08:54	13-Jun-2025 11:25	13-Jun-2025 11:26	13-Jun-2025 11:35	13-Jun-2025 11:36
Compound	CAS Number	LOR	Unit		EP2509632-127	EP2509632-128	EP2509632-129	EP2509632-130	EP2509632-131
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW335_250613	0089_PW340_250613	0089_PW341_250613	0089_PW362_25613	0089_PW363_250613
				Sampling date / time	13-Jun-2025 08:54	13-Jun-2025 11:25	13-Jun-2025 11:26	13-Jun-2025 11:35	13-Jun-2025 11:36
Compound	CAS Number	LOR	Unit		EP2509632-127	EP2509632-128	EP2509632-129	EP2509632-130	EP2509632-131
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**102**	**105**	**106**	**99.2**
13C8-PFOA	----	0.02	%		**104**	**104**	**107**	**107**	**106**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW364_250613	0089_PW329_250611	0089_PW330_250611	0089_PW331_250611	0089_PW356_250611
				Sampling date / time	13-Jun-2025 11:38	11-Jun-2025 14:36	11-Jun-2025 14:36	11-Jun-2025 14:35	11-Jun-2025 14:34
Compound	CAS Number	LOR	Unit		EP2509632-132	EP2509632-133	EP2509632-134	EP2509632-135	EP2509632-136
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW364_250613	0089_PW329_250611	0089_PW330_250611	0089_PW331_250611	0089_PW356_250611
				Sampling date / time	13-Jun-2025 11:38	11-Jun-2025 14:36	11-Jun-2025 14:36	11-Jun-2025 14:35	11-Jun-2025 14:34
Compound	CAS Number	LOR	Unit		EP2509632-132	EP2509632-133	EP2509632-134	EP2509632-135	EP2509632-136
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**102**	**103**	**105**	**105**
13C8-PFOA	----	0.02	%		**105**	**107**	**109**	**106**	**109**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW357_250611	0089_PW358_250611	0089_PW304_250613	0089_PW345_250613	0089_PW368_250613
				Sampling date / time	11-Jun-2025 14:33	11-Jun-2025 14:32	13-Jun-2025 15:28	13-Jun-2025 13:15	13-Jun-2025 15:28
Compound	CAS Number	LOR	Unit		EP2509632-137	EP2509632-138	EP2509632-139	EP2509632-140	EP2509632-141
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.03**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW357_250611	0089_PW358_250611	0089_PW304_250613	0089_PW345_250613	0089_PW368_250613
				Sampling date / time	11-Jun-2025 14:33	11-Jun-2025 14:32	13-Jun-2025 15:28	13-Jun-2025 13:15	13-Jun-2025 15:28
Compound	CAS Number	LOR	Unit		EP2509632-137	EP2509632-138	EP2509632-139	EP2509632-140	EP2509632-141
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.03**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.03**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**104**	**103**	**102**	**102**
13C8-PFOA	----	0.02	%		**105**	**106**	**106**	**106**	**105**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW369_250613	0089_PW350_250609	0089_PW351_250609	0089_PW352_250609	0089_PW380_250609
				Sampling date / time	13-Jun-2025 13:14	09-Jun-2025 10:18	09-Jun-2025 12:14	09-Jun-2025 13:18	09-Jun-2025 11:53
Compound	CAS Number	LOR	Unit		EP2509632-142	EP2509632-143	EP2509632-144	EP2509632-145	EP2509632-146
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.04**	<0.01	<0.01	**0.01**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW369_250613	0089_PW350_250609	0089_PW351_250609	0089_PW352_250609	0089_PW380_250609
				Sampling date / time	13-Jun-2025 13:14	09-Jun-2025 10:18	09-Jun-2025 12:14	09-Jun-2025 13:18	09-Jun-2025 11:53
Compound	CAS Number	LOR	Unit		EP2509632-142	EP2509632-143	EP2509632-144	EP2509632-145	EP2509632-146
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.01**	**0.04**	<0.01	<0.01	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	**0.04**	<0.01	<0.01	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.01**	**0.04**	<0.01	<0.01	**0.01**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**109**	**104**	**110**	**112**
13C8-PFOA	----	0.02	%		**102**	**98.3**	**97.7**	**106**	**96.7**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW381_250609	0089_PW401_250609	0089_PW306_250616	0089_PW307_250616	0089_PW308_250616
				Sampling date / time	09-Jun-2025 12:58	09-Jun-2025 11:14	16-Jun-2025 08:56	16-Jun-2025 10:58	16-Jun-2025 12:08
Compound	CAS Number	LOR	Unit		EP2509632-147	EP2509632-148	EP2509632-149	EP2509632-150	EP2509632-151
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW381_250609	0089_PW401_250609	0089_PW306_250616	0089_PW307_250616	0089_PW308_250616
				Sampling date / time	09-Jun-2025 12:58	09-Jun-2025 11:14	16-Jun-2025 08:56	16-Jun-2025 10:58	16-Jun-2025 12:08
Compound	CAS Number	LOR	Unit		EP2509632-147	EP2509632-148	EP2509632-149	EP2509632-150	EP2509632-151
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**111**	**105**	**106**	**104**
13C8-PFOA	----	0.02	%		**103**	**109**	**102**	**105**	**108**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW315_250616	0089_PW316_250616	0089_PW405_250616	0089_PW407_250616	0089_PW409_250616
				Sampling date / time	16-Jun-2025 17:05	16-Jun-2025 11:37	16-Jun-2025 16:39	16-Jun-2025 16:19	16-Jun-2025 15:32
Compound	CAS Number	LOR	Unit		EP2509632-152	EP2509632-153	EP2509632-154	EP2509632-155	EP2509632-156
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.08**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.09**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW315_250616	0089_PW316_250616	0089_PW405_250616	0089_PW407_250616	0089_PW409_250616
				Sampling date / time	16-Jun-2025 17:05	16-Jun-2025 11:37	16-Jun-2025 16:39	16-Jun-2025 16:19	16-Jun-2025 15:32
Compound	CAS Number	LOR	Unit		EP2509632-152	EP2509632-153	EP2509632-154	EP2509632-155	EP2509632-156
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	**0.24**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	**0.21**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**109**	**107**	**106**	**108**	**110**
13C8-PFOA	----	0.02	%		**105**	**104**	**97.7**	**100**	**104**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_250616	0089_PW413_250616	0089_PW415_250616	0089_PW374_250612	0089_PW375_250612
				Sampling date / time	16-Jun-2025 14:43	16-Jun-2025 14:19	16-Jun-2025 14:19	12-Jun-2025 16:28	12-Jun-2025 16:29
Compound	CAS Number	LOR	Unit		EP2509632-157	EP2509632-158	EP2509632-159	EP2509632-160	EP2509632-161
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_250616	0089_PW413_250616	0089_PW415_250616	0089_PW374_250612	0089_PW375_250612
				Sampling date / time	16-Jun-2025 14:43	16-Jun-2025 14:19	16-Jun-2025 14:19	12-Jun-2025 16:28	12-Jun-2025 16:29
Compound	CAS Number	LOR	Unit		EP2509632-157	EP2509632-158	EP2509632-159	EP2509632-160	EP2509632-161
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**103**	**104**	**110**	**118**
13C8-PFOA	----	0.02	%		**108**	**104**	**102**	**113**	**110**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_250612	----	----	----	----
				Sampling date / time	12-Jun-2025 16:29	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-162	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_250612	----	----	----	----
				Sampling date / time	12-Jun-2025 16:29	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2509632-162	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**110**	----	----	----	----
13C8-PFOA	----	0.02	%		**109**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	76	136
13C8-PFOA	----	78	131

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	76	136
13C8-PFOA	----	78	131

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW109_250606		06/06/2025 11:56 AM	WATER	ALS: 2 Non ALS: 0	No			X						
002	0089_MW112_250606		06/06/2025 09:37 AM	WATER	ALS: 2 Non ALS: 0	No			X						
003	0089_MW500_250606		06/06/2025 11:55 AM	WATER	ALS: 2 Non ALS: 0	No			X						
004	0089_MW120_250606		06/06/2025 09:35 AM	WATER	ALS: 2 Non ALS: 0	No			X						
005	0089_MW121_250606		06/06/2025 10:11 AM	WATER	ALS: 2 Non ALS: 0	No			X						
006	0089_MW123_250606		06/06/2025 11:17 AM	WATER	ALS: 4 Non ALS: 0	No			X						
007	0089_MW124_250606		06/06/2025 01:16 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_MW125_250606		06/06/2025 02:02 PM	WATER	ALS: 6 Non ALS: 0	No			X						lab duplicate and MS taken
009	0089_MW126_250606		06/06/2025 02:20 PM	WATER	ALS: 2 Non ALS: 0	No			X						
010	0089_MW127_250606		06/06/2025 02:54 PM	WATER	ALS: 2 Non ALS: 0	No			X						
011	0089_MW128_250606		06/06/2025 08:26 AM	WATER	ALS: 6 Non ALS: 0	No			X						Lab Dup and Lab MS taken
012	0089_MW158_250606		09/06/2025 04:33 PM	WATER	ALS: 2 Non ALS: 0	No			X						
013	0089_MW161_250609		09/06/2025 04:03 PM	WATER	ALS: 2 Non ALS: 0	No			X						
014	0089_MW166_250609		09/06/2025 03:46 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_MW171_250609		09/06/2025 03:25 PM	WATER	ALS: 2 Non ALS: 0	No			X						
016	0089_MW173_250610		10/06/2025 08:58 AM	WATER	ALS: 2 Non ALS: 0	No			X						
017	0089_MW193_250610		10/06/2025 09:40 AM	WATER	ALS: 2 Non ALS: 0	No			X						
018	0089_MW199_250610		10/06/2025 02:40 PM	WATER	ALS: 2 Non ALS: 0	No			X						
019	0089_MW200_250610		10/06/2025 11:55 AM	WATER	ALS: 2 Non ALS: 0	No			X						
020	0089_MW202_250610		10/06/2025 02:10 PM	WATER	ALS: 2 Non ALS: 0	No			X						
021	0089_MW203_250610		10/06/2025 02:17 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_MW195D_250610		10/06/2025 10:31 AM	WATER	ALS: 2 Non ALS: 0	No			X						
023	0089_MW195S_250610		10/06/2025 10:14 AM	WATER	ALS: 6 Non ALS: 0	No			X						lab duplicate and MS taken
024	0089_MW468_250610		10/06/2025 12:22 PM	WATER	ALS: 2 Non ALS: 0	No			X						
025	0089_MW288_250604		04/06/2025 04:24 PM	WATER	ALS: 2 Non ALS: 0	No			X						
026	0089_MW289_250604		04/06/2025 03:32 PM	WATER	ALS: 2 Non ALS: 0	No			X						
027	0089_MW214_250605		05/06/2025 12:48 PM	WATER	ALS: 2 Non ALS: 0	No			X						
028	0089_MW215_250605		05/06/2025 01:09 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_MW216_250605		05/06/2025 12:09 PM	WATER	ALS: 2 Non ALS: 0	No			X						
030	0089_MW217_250605		05/06/2025 11:39 AM	WATER	ALS: 4 Non ALS: 0	No			X						
031	0089_MW220_250605		05/06/2025 08:34 AM	WATER	ALS: 2 Non ALS: 0	No			X						
032	0089_MW224_250605		05/06/2025 08:42 AM	WATER	ALS: 2 Non ALS: 0	No			X						
033	0089_MW225_250605		05/06/2025 02:01 PM	WATER	ALS: 6 Non ALS: 0	No			X						
034	0089_MW226_250605		05/06/2025 02:55 PM	WATER	ALS: 2 Non ALS: 0	No			X						
035	0089_MW227_250605		05/06/2025 04:02 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	0089_MW228_250605		05/06/2025 03:46 PM	WATER	ALS: 2 Non ALS: 0	No			X						
037	0089_MW282_250605		05/06/2025 08:44 AM	WATER	ALS: 2 Non ALS: 0	No			X						
038	0089_MW268_250603		03/06/2025 04:36 PM	WATER	ALS: 2 Non ALS: 0	No			X						
039	0089_MW269_250603		03/06/2025 04:27 PM	WATER	ALS: 2 Non ALS: 0	No			X						
040	0089_MW233_250612		12/06/2025 02:24 PM	WATER	ALS: 2 Non ALS: 0	No			X						
041	0089_MW236_250612		12/06/2025 02:11 PM	WATER	ALS: 2 Non ALS: 0	No			X						
042	0089_MW238_250612		12/06/2025 02:09 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0089_MW240_250612		12/06/2025 02:07 PM	WATER	ALS: 6 Non ALS: 0	No			X						
044	0089_MW242_250604		04/06/2025 04:20 PM	WATER	ALS: 2 Non ALS: 0	No			X						
045	0089_MW243_250612		12/06/2025 02:10 PM	WATER	ALS: 2 Non ALS: 0	No			X						
046	0089_MW245_250612		12/06/2025 02:10 PM	WATER	ALS: 2 Non ALS: 0	No			X						
047	0089_MW249_250604		04/06/2025 04:25 PM	WATER	ALS: 2 Non ALS: 0	No			X						
048	0089_MW496_250604		03/06/2025 04:29 PM	WATER	ALS: 2 Non ALS: 0	No			X						
049	0089_MW516_250604		04/06/2025 04:28 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0089_MW255_250603		03/06/2025 04:31 PM	WATER	ALS: 2 Non ALS: 0	No			X						
051	0089_MW256_250603		03/06/2025 04:38 PM	WATER	ALS: 2 Non ALS: 0	No			X						
052	0089_MW257_250603		03/06/2025 04:39 PM	WATER	ALS: 2 Non ALS: 0	No			X						
053	0089_MW258_250603		03/06/2025 04:37 PM	WATER	ALS: 2 Non ALS: 0	No			X						
054	0089_MW259_250603		03/06/2025 04:35 PM	WATER	ALS: 2 Non ALS: 0	No			X						
055	0089_MW553_250603		03/06/2025 04:33 PM	WATER	ALS: 2 Non ALS: 0	No			X						
056	0089_MW010_250603		03/06/2025 04:34 PM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

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Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

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PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
057	0089_MW139_250611		11/06/2025 08:49 AM	WATER	ALS: 2 Non ALS: 0	No			X						
058	0089_MW141_250611		11/06/2025 09:47 AM	WATER	ALS: 4 Non ALS: 0	No			X						lab dup taken
059	0089_MW142_250611		11/06/2025 10:03 AM	WATER	ALS: 2 Non ALS: 0	No			X						
060	0089_MW147_250611		11/06/2025 09:20 AM	WATER	ALS: 2 Non ALS: 0	No			X						
061	0089_MW149_250611		11/06/2025 09:50 AM	WATER	ALS: 2 Non ALS: 0	No			X						
062	0089_SD335_250613		13/06/2025 08:48 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
063	0089_SD340_250613		13/06/2025 11:19 AM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0089_SD341_250613		13/06/2025 11:19 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
065	0089_SD362_250613		13/06/2025 11:20 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
066	0089_SD363_250613		13/06/2025 11:20 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
067	0089_SD364_250613		13/06/2025 11:21 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
068	0089_SD329_250611		11/06/2025 02:20 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
069	0089_SD330_250611		11/06/2025 02:21 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
070	0089_SD331_250611		11/06/2025 02:21 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
071	0089_SD356_250611		11/06/2025 02:22 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
072	0089_SD357_250611		11/06/2025 02:22 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
073	0089_SD358_250611		11/06/2025 02:23 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
074	0089_SD304_250613		13/06/2025 03:23 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
075	0089_SD345_250613		13/06/2025 01:17 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
076	0089_SD368_250613		13/06/2025 03:24 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
077	0089_SD369_250613		13/06/2025 01:16 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
078	0089_SD350_250609		09/06/2025 10:14 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
079	0089_SD351_250609		09/06/2025 12:15 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
080	0089_SD352_250609		09/06/2025 01:20 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
081	0089_SD380_250609		09/06/2025 11:53 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
082	0089_SD381_250609		09/06/2025 12:57 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
083	0089_SD401_250609		09/06/2025 11:16 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
084	0089_SD306_250616		16/06/2025 08:55 AM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

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PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

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Other comments:

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
085	0089_SD307_250616		16/06/2025 10:58 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
086	0089_SD308_250616		16/06/2025 12:04 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
087	0089_SD314_250616		16/06/2025 09:54 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
088	0089_SD315_250616		16/06/2025 10:21 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
089	0089_SD316_250616		16/06/2025 11:40 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
090	0089_SD405_250616		16/06/2025 04:38 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
091	0089_SD407_250616		16/06/2025 04:18 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
092	0089_SD409_250616		16/06/2025 03:25 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
093	0089_SD411_250616		16/06/2025 02:42 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
094	0089_SD413_250616		16/06/2025 02:20 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
095	0089_SD415_250616		16/06/2025 02:14 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
096	0089_SD374_250612		12/06/2025 04:25 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
097	0089_SD375_250612		12/06/2025 04:24 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
098	0089_SD378_250612		12/06/2025 04:24 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

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099	0089_SW130_250613		13/06/2025 08:51 AM	WATER	ALS: 2 Non ALS: 0	No							X		
100	0089_SW132_250613		13/06/2025 11:22 AM	WATER	ALS: 2 Non ALS: 0	No							X		
101	0089_SW134_250613		13/06/2025 11:22 AM	WATER	ALS: 2 Non ALS: 0	No							X		
102	0089_SW150_250611		11/06/2025 02:29 PM	WATER	ALS: 2 Non ALS: 0	No							X		
103	0089_SW152_250611		11/06/2025 02:28 PM	WATER	ALS: 2 Non ALS: 0	No							X		
104	0089_SW154_250611		11/06/2025 02:28 PM	WATER	ALS: 2 Non ALS: 0	No							X		
105	0089_SW156_250611		11/06/2025 02:29 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
106	0089_SW305_250613		13/06/2025 03:25 PM	WATER	ALS: 4 Non ALS: 0	No							X		
107	0089_SW370_250613		13/06/2025 01:13 PM	WATER	ALS: 2 Non ALS: 0	No							X		
108	0089_SW371_250613		13/06/2025 03:26 PM	WATER	ALS: 2 Non ALS: 0	No							X		
109	0089_SW372_250613		13/06/2025 03:27 PM	WATER	ALS: 2 Non ALS: 0	No							X		
110	0089_SW373_250613		13/06/2025 03:26 PM	WATER	ALS: 2 Non ALS: 0	No							X		
111	0089_SW353_250609		09/06/2025 10:13 AM	WATER	ALS: 2 Non ALS: 0	No							X		
112	0089_SW382_250609		09/06/2025 01:19 PM	WATER	ALS: 4 Non ALS: 0	No							X		lab duplicate taken

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
113	0089_SW383_250609		09/06/2025 11:35 AM	WATER	ALS: 2 Non ALS: 0	No							X		
114	0089_SW384_250609		09/06/2025 11:09 AM	WATER	ALS: 2 Non ALS: 0	No							X		
115	0089_SW309_250616		16/06/2025 08:55 AM	WATER	ALS: 2 Non ALS: 0	No							X		
116	0089_SW310_250616		16/06/2025 10:22 AM	WATER	ALS: 2 Non ALS: 0	No							X		
117	0089_SW311_250616		16/06/2025 12:05 PM	WATER	ALS: 2 Non ALS: 0	No							X		
118	0089_SW406_250616		16/06/2025 04:58 PM	WATER	ALS: 2 Non ALS: 0	No							X		
119	0089_SW408_250616		16/06/2025 04:17 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
120	0089_SW410_250616		16/06/2025 03:26 PM	WATER	ALS: 6 Non ALS: 0	No							X		
121	0089_SW412_250616		16/06/2025 02:42 PM	WATER	ALS: 2 Non ALS: 0	No							X		
122	0089_SW414_250616		16/06/2025 02:20 PM	WATER	ALS: 2 Non ALS: 0	No							X		
123	0089_SW416_250616		16/06/2025 02:15 PM	WATER	ALS: 2 Non ALS: 0	No							X		
124	0089_SW317_250612		12/06/2025 04:26 PM	WATER	ALS: 2 Non ALS: 0	No							X		
125	0089_SW318_250612		12/06/2025 04:26 PM	WATER	ALS: 2 Non ALS: 0	No							X		
126	0089_SW319_250612		12/06/2025 04:27 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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SITE: 0089

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PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
127	0089_PW335_250613		13/06/2025 08:54 AM	WATER	ALS: 2 Non ALS: 0	No							X		
128	0089_PW340_250613		13/06/2025 11:25 AM	WATER	ALS: 2 Non ALS: 0	No							X		
129	0089_PW341_250613		13/06/2025 11:26 AM	WATER	ALS: 6 Non ALS: 0	No							X		
130	0089_PW362_25613		13/06/2025 11:35 AM	WATER	ALS: 2 Non ALS: 0	No							X		
131	0089_PW363_250613		13/06/2025 11:36 AM	WATER	ALS: 2 Non ALS: 0	No							X		
132	0089_PW364_250613		13/06/2025 11:38 AM	WATER	ALS: 2 Non ALS: 0	No							X		
133	0089_PW329_250611		11/06/2025 02:36 PM	WATER	ALS: 2 Non ALS: 0	No							X		

CHAIN OF CUSTODY

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
134	0089_PW330_250611		11/06/2025 02:36 PM	WATER	ALS: 2 Non ALS: 0	No							X		
135	0089_PW331_250611		11/06/2025 02:35 PM	WATER	ALS: 2 Non ALS: 0	No							X		
136	0089_PW356_250611		11/06/2025 02:34 PM	WATER	ALS: 2 Non ALS: 0	No							X		
137	0089_PW357_250611		11/06/2025 02:33 PM	WATER	ALS: 2 Non ALS: 0	No							X		
138	0089_PW358_250611		11/06/2025 02:32 PM	WATER	ALS: 2 Non ALS: 0	No							X		
139	0089_PW304_250613		13/06/2025 03:28 PM	WATER	ALS: 2 Non ALS: 0	No							X		
140	0089_PW345_250613		13/06/2025 01:15 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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141	0089_PW368_250613		13/06/2025 03:28 PM	WATER	ALS: 2 Non ALS: 0	No							X		
142	0089_PW369_250613		13/06/2025 01:14 PM	WATER	ALS: 2 Non ALS: 0	No							X		
143	0089_PW350_250609		09/06/2025 10:18 AM	WATER	ALS: 6 Non ALS: 0	No							X		Lab dup and lab ms taken
144	0089_PW351_250609		09/06/2025 12:14 PM	WATER	ALS: 2 Non ALS: 0	No							X		
145	0089_PW352_250609		09/06/2025 01:18 PM	WATER	ALS: 2 Non ALS: 0	No							X		
146	0089_PW380_250609		09/06/2025 11:53 AM	WATER	ALS: 2 Non ALS: 0	No							X		
147	0089_PW381_250609		09/06/2025 12:58 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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148	0089_PW401_250609		09/06/2025 11:14 AM	WATER	ALS: 2 Non ALS: 0	No							X		
149	0089_PW306_250616		16/06/2025 08:56 AM	WATER	ALS: 2 Non ALS: 0	No							X		
150	0089_PW307_250616		16/06/2025 10:58 AM	WATER	ALS: 6 Non ALS: 0	No							X		lab duplicate and MS taken
151	0089_PW308_250616		16/06/2025 12:08 PM	WATER	ALS: 6 Non ALS: 0	No							X		lab duplicate and MS taken
152	0089_PW315_250616		16/06/2025 05:05 PM	WATER	ALS: 6 Non ALS: 0	No							X		
153	0089_PW316_250616		16/06/2025 11:37 AM	WATER	ALS: 4 Non ALS: 0	No							X		lab duplicate taken
154	0089_PW405_250616		16/06/2025 04:39 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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155	0089_PW407_250616		16/06/2025 04:19 PM	WATER	ALS: 2 Non ALS: 0	No							X		
156	0089_PW409_250616		16/06/2025 03:32 PM	WATER	ALS: 2 Non ALS: 0	No							X		
157	0089_PW411_250616		16/06/2025 02:43 PM	WATER	ALS: 2 Non ALS: 0	No							X		
158	0089_PW413_250616		16/06/2025 02:19 PM	WATER	ALS: 2 Non ALS: 0	No							X		
159	0089_PW415_250616		16/06/2025 02:19 PM	WATER	ALS: 2 Non ALS: 0	No							X		
160	0089_PW374_250612		12/06/2025 04:28 PM	WATER	ALS: 2 Non ALS: 0	No							X		
161	0089_PW375_250612		12/06/2025 04:29 PM	WATER	ALS: 2 Non ALS: 0	No							X		

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162	0089_PW378_250612		12/06/2025 04:29 PM	WATER	ALS: 2 Non ALS: 0	No							X		
163	0089_QC300_250603		03/06/2025 04:10 PM	WATER	ALS: 4 Non ALS: 0	No		Partial 1/3							lap dup taken
164	0089_QC301_250604		04/06/2025 04:19 PM	WATER	ALS: 6 Non ALS: 0	No		Partial 1/3							lab duplicate and MS taken
165	0089_QC400_250603		04/06/2025 04:16 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
166	0089_QC401_250604		04/06/2025 04:17 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
167	0089_QC100_250603		04/06/2025 04:41 PM	WATER	ALS: 2 Non ALS: 0	No			X						
168	0089_QC101_250603		03/06/2025 04:43 PM	WATER	ALS: 1 Non ALS: 1	No			X						one bottle doesn't have sticker to scan in

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
169	0089_QC102_250604		04/06/2025 04:45 PM	WATER	ALS: 2 Non ALS: 0	No			X						
170	0089_QC103_250604		04/06/2025 04:48 PM	WATER	ALS: 2 Non ALS: 0	No			X						
171	0089_QC104_250605		05/06/2025 10:21 AM	WATER	ALS: 2 Non ALS: 0	No			X						
172	0089_QC302_250605		05/06/2025 04:59 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
173	0089_QC402_250605		05/06/2025 05:00 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
174	0089_QC105_250606		06/06/2025 09:36 AM	WATER	ALS: 2 Non ALS: 0	No			X						
175	0089_QC303_250606		06/06/2025 03:21 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
176	0089_QC403_250606		06/06/2025 03:22 PM	WATER	ALS: 2 Non ALS: 0	No		X							
177	0089_QC304_250609		09/06/2025 02:41 PM	WATER	ALS: 2 Non ALS: 0	No		X							
178	0089_QC404_250609		09/06/2025 02:43 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
179	0089_QC106_250609		09/06/2025 03:27 PM	WATER	ALS: 2 Non ALS: 0	No			X						
180	0089_QC405_250610		10/06/2025 03:02 PM	WATER	ALS: 2 Non ALS: 0	No		X							
181	0089_QC305_250610		10/06/2025 03:03 PM	WATER	ALS: 2 Non ALS: 0	No		X							
182	0089_QC107_250611		11/06/2025 08:50 AM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
183	0089_QC108_250611		11/06/2025 02:24 PM	WATER	ALS: 2 Non ALS: 0	No			X						
184	0089_QC109_250611		11/06/2025 02:26 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
185	0089_QC306_250611		11/06/2025 03:07 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
186	0089_QC406_250611		11/06/2025 03:09 PM	WATER	ALS: 6 Non ALS: 0	No		X							lab duplicate and MS taken
187	0089_QC110_250612		12/06/2025 04:31 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
188	0089_QC111_250612		12/06/2025 04:32 PM	WATER	ALS: 2 Non ALS: 0	No							X		
189	0089_QC307_250612		12/06/2025 04:34 PM	WATER	ALS: 2 Non ALS: 0	No				X					

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
190	0089_QC407_250612		12/06/2025 04:34 PM	WATER	ALS: 2 Non ALS: 0	No				X					
191	0089_QC113_250613		13/06/2025 08:50 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
192	0089_QC112_250613		13/06/2025 08:52 AM	WATER	ALS: 2 Non ALS: 0	No						X			
193	0089_QC114_250613		13/06/2025 01:18 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
194	0089_QC308_250613		13/06/2025 03:35 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
195	0089_QC408_250613		13/06/2025 03:36 PM	WATER	ALS: 2 Non ALS: 0	No		X							
196	0089_QC116_250616		16/06/2025 10:25 AM	WATER	ALS: 2 Non ALS: 0	No							X		

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - Major Ions SURFACE WATER	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
197	0089_QC115_250616		16/06/2025 10:32 AM	WATER	ALS: 2 Non ALS: 0	No							X		
198	0089_QC117_250616		16/06/2025 02:22 PM	WATER	ALS: 2 Non ALS: 0	No							X		
199	0089_QC118_250616		16/06/2025 04:40 PM	WATER	ALS: 2 Non ALS: 0	No							X		
200	0089_QC309_250616		16/06/2025 05:08 PM	WATER	ALS: 2 Non ALS: 0	No		X							
201	0089_QC409_250616		16/06/2025 05:09 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3							
202	0089_PW346_250613		17/06/2025 04:56 PM	WATER	ALS: 0 Non ALS: 0	No							X		
203	0089_SD346_250613		17/06/2025 05:10 PM	WATER	ALS: 0 Non ALS: 0	No	-								

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
163	0089_QC300_250603	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
164	0089_QC301_250604	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
165	0089_QC400_250603	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
166	0089_QC401_250604	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
172	0089_QC302_250605	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
173	0089_QC402_250605	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
178	0089_QC404_250609	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
185	0089_QC306_250611	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
194	0089_QC308_250613	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
201	0089_QC409_250616	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW109_250606	HDPE (no PTFE)	20 mL	00352407198010	Grey	No	
001	0089_MW109_250606	HDPE (no PTFE)	20 mL	00352407197551	Grey	No	
002	0089_MW112_250606	HDPE (no PTFE)	20 mL	00352407144864	Grey	No	
002	0089_MW112_250606	HDPE (no PTFE)	20 mL	00352407145046	Grey	No	
003	0089_MW500_250606	HDPE (no PTFE)	20 mL	00352407145132	Grey	No	
003	0089_MW500_250606	HDPE (no PTFE)	20 mL	00352407145015	Grey	No	
004	0089_MW120_250606	HDPE (no PTFE)	20 mL	00352407145139	Grey	No	
004	0089_MW120_250606	HDPE (no PTFE)	20 mL	00352407145315	Grey	No	
005	0089_MW121_250606	HDPE (no PTFE)	20 mL	00352312034626	Grey	No	
005	0089_MW121_250606	HDPE (no PTFE)	20 mL	00352312034746	Grey	No	
006	0089_MW123_250606	HDPE (no PTFE)	20 mL	00352407197787	Grey	No	
006	0089_MW123_250606	HDPE (no PTFE)	20 mL	00352407198114	Grey	No	
006	0089_MW123_250606	HDPE (no PTFE)	20 mL	00352407145221	Grey	No	
006	0089_MW123_250606	HDPE (no PTFE)	20 mL	00352407145146	Grey	No	
007	0089_MW124_250606	HDPE (no PTFE)	20 mL	00352407145320	Grey	No	
007	0089_MW124_250606	HDPE (no PTFE)	20 mL	00352407144812	Grey	No	
008	0089_MW125_250606	HDPE (no PTFE)	20 mL	00352407198004	Grey	No	
008	0089_MW125_250606	HDPE (no PTFE)	20 mL	00352407197907	Grey	No	
008	0089_MW125_250606	HDPE (no PTFE)	20 mL	00352407198028	Grey	No	
008	0089_MW125_250606	HDPE (no PTFE)	20 mL	00352407198110	Grey	No	
008	0089_MW125_250606	HDPE (no PTFE)	20 mL	00352407145168	Grey	No	
008	0089_MW125_250606	HDPE (no PTFE)	20 mL	00352407145154	Grey	No	
009	0089_MW126_250606	HDPE (no PTFE)	20 mL	00352407145163	Grey	No	
009	0089_MW126_250606	HDPE (no PTFE)	20 mL	00352407145306	Grey	No	
010	0089_MW127_250606	HDPE (no PTFE)	20 mL	00352407198027	Grey	No	
010	0089_MW127_250606	HDPE (no PTFE)	20 mL	00352407197975	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

011	0089_MW128_250606	HDPE (no PTFE)	20 mL	00352407145187	Grey	No	
011	0089_MW128_250606	HDPE (no PTFE)	20 mL	00352407144765	Grey	No	
011	0089_MW128_250606	HDPE (no PTFE)	20 mL	00352407145180	Grey	No	
011	0089_MW128_250606	HDPE (no PTFE)	20 mL	00352407144840	Grey	No	
011	0089_MW128_250606	HDPE (no PTFE)	20 mL	00352407145278	Grey	No	
011	0089_MW128_250606	HDPE (no PTFE)	20 mL	00352407145005	Grey	No	
012	0089_MW158_250606	HDPE (no PTFE)	20 mL	00352407197850	Grey	No	
012	0089_MW158_250606	HDPE (no PTFE)	20 mL	00352407197716	Grey	No	
013	0089_MW161_250609	HDPE (no PTFE)	20 mL	00352407197903	Grey	No	
013	0089_MW161_250609	HDPE (no PTFE)	20 mL	00352407197604	Grey	No	
014	0089_MW166_250609	HDPE (no PTFE)	20 mL	00352407197634	Grey	No	
014	0089_MW166_250609	HDPE (no PTFE)	20 mL	00352407197803	Grey	No	
015	0089_MW171_250609	HDPE (no PTFE)	20 mL	00352407197873	Grey	No	
015	0089_MW171_250609	HDPE (no PTFE)	20 mL	00352407197792	Grey	No	
016	0089_MW173_250610	HDPE (no PTFE)	20 mL	00352407197736	Grey	No	
016	0089_MW173_250610	HDPE (no PTFE)	20 mL	00352407197876	Grey	No	
017	0089_MW193_250610	HDPE (no PTFE)	20 mL	00352407197719	Grey	No	
017	0089_MW193_250610	HDPE (no PTFE)	20 mL	00352407197973	Grey	No	
018	0089_MW199_250610	HDPE (no PTFE)	20 mL	00352407197988	Grey	No	
018	0089_MW199_250610	HDPE (no PTFE)	20 mL	00352407198059	Grey	No	
019	0089_MW200_250610	HDPE (no PTFE)	20 mL	00352407197957	Grey	No	
019	0089_MW200_250610	HDPE (no PTFE)	20 mL	00352407197574	Grey	No	
020	0089_MW202_250610	HDPE (no PTFE)	20 mL	00352407198039	Grey	No	
020	0089_MW202_250610	HDPE (no PTFE)	20 mL	00352407197908	Grey	No	
021	0089_MW203_250610	HDPE (no PTFE)	20 mL	00352407145109	Grey	No	
021	0089_MW203_250610	HDPE (no PTFE)	20 mL	00352407144844	Grey	No	
022	0089_MW195D_250610	HDPE (no PTFE)	20 mL	00352407197791	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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022	0089_MW195D_250610	HDPE (no PTFE)	20 mL	00352407197927	Grey	No	
023	0089_MW195S_250610	HDPE (no PTFE)	20 mL	00352407197948	Grey	No	
023	0089_MW195S_250610	HDPE (no PTFE)	20 mL	00352407197881	Grey	No	
023	0089_MW195S_250610	HDPE (no PTFE)	20 mL	00352407144897	Grey	No	
023	0089_MW195S_250610	HDPE (no PTFE)	20 mL	00352407145239	Grey	No	
023	0089_MW195S_250610	HDPE (no PTFE)	20 mL	00352407197686	Grey	No	
023	0089_MW195S_250610	HDPE (no PTFE)	20 mL	00352407197992	Grey	No	
024	0089_MW468_250610	HDPE (no PTFE)	20 mL	00352407198043	Grey	No	
024	0089_MW468_250610	HDPE (no PTFE)	20 mL	00352407198100	Grey	No	
025	0089_MW288_250604	HDPE (no PTFE)	20 mL	00352312034471	Grey	No	
025	0089_MW288_250604	HDPE (no PTFE)	20 mL	00352312034271	Grey	No	
026	0089_MW289_250604	HDPE (no PTFE)	20 mL	00352312034327	Grey	No	
026	0089_MW289_250604	HDPE (no PTFE)	20 mL	00352312034939	Grey	No	
027	0089_MW214_250605	HDPE (no PTFE)	20 mL	00352309036932	Grey	No	
027	0089_MW214_250605	HDPE (no PTFE)	20 mL	00352309036918	Grey	No	
028	0089_MW215_250605	HDPE (no PTFE)	20 mL	00352407145344	Grey	No	
028	0089_MW215_250605	HDPE (no PTFE)	20 mL	00352407144803	Grey	No	
029	0089_MW216_250605	HDPE (no PTFE)	20 mL	00352312034409	Grey	No	
029	0089_MW216_250605	HDPE (no PTFE)	20 mL	00352312034288	Grey	No	
030	0089_MW217_250605	HDPE (no PTFE)	20 mL	00352312035086	Grey	No	
030	0089_MW217_250605	HDPE (no PTFE)	20 mL	00352312035016	Grey	No	
030	0089_MW217_250605	HDPE (no PTFE)	20 mL	00352312060905	Grey	No	
030	0089_MW217_250605	HDPE (no PTFE)	20 mL	00352312060900	Grey	No	
031	0089_MW220_250605	HDPE (no PTFE)	20 mL	00352312060824	Grey	No	
031	0089_MW220_250605	HDPE (no PTFE)	20 mL	00352312061041	Grey	No	
032	0089_MW224_250605	HDPE (no PTFE)	20 mL	00352312034270	Grey	No	
032	0089_MW224_250605	HDPE (no PTFE)	20 mL	00352312034475	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

033	0089_MW225_250605	HDPE (no PTFE)	20 mL	00352407197998	Grey	No	
033	0089_MW225_250605	HDPE (no PTFE)	20 mL	00352407197929	Grey	No	
033	0089_MW225_250605	HDPE (no PTFE)	20 mL	00352407145014	Grey	No	
033	0089_MW225_250605	HDPE (no PTFE)	20 mL	00352407145237	Grey	No	
033	0089_MW225_250605	HDPE (no PTFE)	20 mL	00352407145271	Grey	No	
033	0089_MW225_250605	HDPE (no PTFE)	20 mL	00352407145351	Grey	No	
034	0089_MW226_250605	HDPE (no PTFE)	20 mL	00352407198012	Grey	No	
034	0089_MW226_250605	HDPE (no PTFE)	20 mL	00352407144995	Grey	No	
035	0089_MW227_250605	HDPE (no PTFE)	20 mL	00352407197971	Grey	No	
035	0089_MW227_250605	HDPE (no PTFE)	20 mL	00352407145008	Grey	No	
036	0089_MW228_250605	HDPE (no PTFE)	20 mL	00352407145316	Grey	No	
036	0089_MW228_250605	HDPE (no PTFE)	20 mL	00352407145286	Grey	No	
037	0089_MW282_250605	HDPE (no PTFE)	20 mL	00352312034549	Grey	No	
037	0089_MW282_250605	HDPE (no PTFE)	20 mL	00352312034282	Grey	No	
038	0089_MW268_250603	HDPE (no PTFE)	20 mL	00352312034440	Grey	No	
038	0089_MW268_250603	HDPE (no PTFE)	20 mL	00352312034291	Grey	No	
039	0089_MW269_250603	HDPE (no PTFE)	20 mL	00352312034304	Grey	No	
039	0089_MW269_250603	HDPE (no PTFE)	20 mL	00352312034210	Grey	No	
040	0089_MW233_250612	HDPE (no PTFE)	20 mL	00352407197843	Grey	No	
040	0089_MW233_250612	HDPE (no PTFE)	20 mL	00352407197712	Grey	No	
041	0089_MW236_250612	HDPE (no PTFE)	20 mL	00352407197729	Grey	No	
041	0089_MW236_250612	HDPE (no PTFE)	20 mL	00352407197910	Grey	No	
042	0089_MW238_250612	HDPE (no PTFE)	20 mL	00352407145264	Grey	No	
042	0089_MW238_250612	HDPE (no PTFE)	20 mL	00352407145142	Grey	No	
043	0089_MW240_250612	HDPE (no PTFE)	20 mL	00352407198139	Grey	No	
043	0089_MW240_250612	HDPE (no PTFE)	20 mL	00352407197558	Grey	No	
043	0089_MW240_250612	HDPE (no PTFE)	20 mL	00352407197813	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

043	0089_MW240_250612	HDPE (no PTFE)	20 mL	00352407197582	Grey	No	
043	0089_MW240_250612	HDPE (no PTFE)	20 mL	00352407197636	Grey	No	
043	0089_MW240_250612	HDPE (no PTFE)	20 mL	00352407198005	Grey	No	
044	0089_MW242_250604	HDPE (no PTFE)	20 mL	00352407217154	Grey	No	
044	0089_MW242_250604	HDPE (no PTFE)	20 mL	00352407217220	Grey	No	
045	0089_MW243_250612	HDPE (no PTFE)	20 mL	00352407197860	Grey	No	
045	0089_MW243_250612	HDPE (no PTFE)	20 mL	00352407198058	Grey	No	
046	0089_MW245_250612	HDPE (no PTFE)	20 mL	00352407197858	Grey	No	
046	0089_MW245_250612	HDPE (no PTFE)	20 mL	00352407198045	Grey	No	
047	0089_MW249_250604	HDPE (no PTFE)	20 mL	00352312060493	Grey	No	
047	0089_MW249_250604	HDPE (no PTFE)	20 mL	00352312060501	Grey	No	
048	0089_MW496_250604	HDPE (no PTFE)	20 mL	00352312034225	Grey	No	
048	0089_MW496_250604	HDPE (no PTFE)	20 mL	00352312034479	Grey	No	
049	0089_MW516_250604	HDPE (no PTFE)	20 mL	00352312034776	Grey	No	
049	0089_MW516_250604	HDPE (no PTFE)	20 mL	00352312034267	Grey	No	
050	0089_MW255_250603	HDPE (no PTFE)	20 mL	00352407217298	Grey	No	
050	0089_MW255_250603	HDPE (no PTFE)	20 mL	00352407216794	Grey	No	
051	0089_MW256_250603	HDPE (no PTFE)	20 mL	00352407217240	Grey	No	
051	0089_MW256_250603	HDPE (no PTFE)	20 mL	00352407217202	Grey	No	
052	0089_MW257_250603	HDPE (no PTFE)	20 mL	00352407217055	Grey	No	
052	0089_MW257_250603	HDPE (no PTFE)	20 mL	00352407216779	Grey	No	
053	0089_MW258_250603	HDPE (no PTFE)	20 mL	00352407216769	Grey	No	
053	0089_MW258_250603	HDPE (no PTFE)	20 mL	00352407216959	Grey	No	
054	0089_MW259_250603	HDPE (no PTFE)	20 mL	00352407217139	Grey	No	
054	0089_MW259_250603	HDPE (no PTFE)	20 mL	00352407217071	Grey	No	
055	0089_MW553_250603	HDPE (no PTFE)	20 mL	00352407216780	Grey	No	
055	0089_MW553_250603	HDPE (no PTFE)	20 mL	00352407216809	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

056	0089_MW010_250603	HDPE (no PTFE)	20 mL	00352407216758	Grey	No	
056	0089_MW010_250603	HDPE (no PTFE)	20 mL	00352407217217	Grey	No	
057	0089_MW139_250611	HDPE (no PTFE)	20 mL	00352407145158	Grey	No	
057	0089_MW139_250611	HDPE (no PTFE)	20 mL	00352407145296	Grey	No	
058	0089_MW141_250611	HDPE (no PTFE)	20 mL	00352407198102	Grey	No	
058	0089_MW141_250611	HDPE (no PTFE)	20 mL	00352407144794	Grey	No	
058	0089_MW141_250611	HDPE (no PTFE)	20 mL	00352407145009	Grey	No	
058	0089_MW141_250611	HDPE (no PTFE)	20 mL	00352407197786	Grey	No	
059	0089_MW142_250611	HDPE (no PTFE)	20 mL	00352407144845	Grey	No	
059	0089_MW142_250611	HDPE (no PTFE)	20 mL	00352407145346	Grey	No	
060	0089_MW147_250611	HDPE (no PTFE)	20 mL	00352407145198	Grey	No	
060	0089_MW147_250611	HDPE (no PTFE)	20 mL	00352407145177	Grey	No	
061	0089_MW149_250611	HDPE (no PTFE)	20 mL	00352407144810	Grey	No	
061	0089_MW149_250611	HDPE (no PTFE)	20 mL	00352407145274	Grey	No	
062	0089_SD335_250613	HDPE Soil Jar	200 mL	00621223021201	Grey	No	
063	0089_SD340_250613	HDPE Soil Jar	200 mL	00621223021113	Grey	No	
064	0089_SD341_250613	HDPE Soil Jar	200 mL	00621223021161	Grey	No	
065	0089_SD362_250613	HDPE Soil Jar	200 mL	00621223021178	Grey	No	
066	0089_SD363_250613	HDPE Soil Jar	200 mL	00621223021074	Grey	No	
067	0089_SD364_250613	HDPE Soil Jar	200 mL	00621223021089	Grey	No	
068	0089_SD329_250611	HDPE Soil Jar	200 mL	00621223021195	Grey	No	
069	0089_SD330_250611	HDPE Soil Jar	200 mL	00621223021188	Grey	No	
070	0089_SD331_250611	HDPE Soil Jar	200 mL	00621223021086	Grey	No	
071	0089_SD356_250611	HDPE Soil Jar	200 mL	00621223021191	Grey	No	
072	0089_SD357_250611	HDPE Soil Jar	200 mL	00621223021147	Grey	No	
073	0089_SD358_250611	HDPE Soil Jar	200 mL	00621223021109	Grey	No	
074	0089_SD304_250613	HDPE Soil Jar	200 mL	00621223021087	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

075	0089_SD345_250613	HDPE Soil Jar	200 mL	00621223021101	Grey	No	
076	0089_SD368_250613	HDPE Soil Jar	200 mL	00621223021093	Grey	No	
077	0089_SD369_250613	HDPE Soil Jar	200 mL	00621223021135	Grey	No	
078	0089_SD350_250609	HDPE Soil Jar	200 mL	00621223021071	Grey	No	
079	0089_SD351_250609	HDPE Soil Jar	200 mL	00621223021064	Grey	No	
080	0089_SD352_250609	HDPE Soil Jar	200 mL	00621223021110	Grey	No	
081	0089_SD380_250609	HDPE Soil Jar	200 mL	00621223021193	Grey	No	
082	0089_SD381_250609	HDPE Soil Jar	200 mL	00621223021141	Grey	No	
083	0089_SD401_250609	HDPE Soil Jar	200 mL	00621223021150	Grey	No	
084	0089_SD306_250616	HDPE Soil Jar	200 mL	00621223021199	Grey	No	
085	0089_SD307_250616	HDPE Soil Jar	200 mL	00621223021073	Grey	No	
086	0089_SD308_250616	HDPE Soil Jar	200 mL	00621223021072	Grey	No	
087	0089_SD314_250616	HDPE Soil Jar	200 mL	00621223021130	Grey	No	
088	0089_SD315_250616	HDPE Soil Jar	200 mL	00621223021197	Grey	No	
089	0089_SD316_250616	HDPE Soil Jar	200 mL	00621223021124	Grey	No	
090	0089_SD405_250616	HDPE Soil Jar	200 mL	00621223021126	Grey	No	
091	0089_SD407_250616	HDPE Soil Jar	200 mL	00621223021166	Grey	No	
092	0089_SD409_250616	HDPE Soil Jar	200 mL	00621223021148	Grey	No	
093	0089_SD411_250616	HDPE Soil Jar	200 mL	00621223021053	Grey	No	
094	0089_SD413_250616	HDPE Soil Jar	200 mL	00621223021179	Grey	No	
095	0089_SD415_250616	HDPE Soil Jar	200 mL	00621223021120	Grey	No	
096	0089_SD374_250612	HDPE Soil Jar	200 mL	00621223021162	Grey	No	
097	0089_SD375_250612	HDPE Soil Jar	200 mL	00621223021061	Grey	No	
098	0089_SD378_250612	HDPE Soil Jar	200 mL	00621223021170	Grey	No	
099	0089_SW130_250613	HDPE (no PTFE)	20 mL	00352407197548	Grey	No	
099	0089_SW130_250613	HDPE (no PTFE)	20 mL	00352407197646	Grey	No	
100	0089_SW132_250613	HDPE (no PTFE)	20 mL	00352407197767	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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100	0089_SW132_250613	HDPE (no PTFE)	20 mL	00352407197864	Grey	No	
101	0089_SW134_250613	HDPE (no PTFE)	20 mL	00352407149001	Grey	No	
101	0089_SW134_250613	HDPE (no PTFE)	20 mL	00352407148822	Grey	No	
102	0089_SW150_250611	HDPE (no PTFE)	20 mL	00352407145204	Grey	No	
102	0089_SW150_250611	HDPE (no PTFE)	20 mL	00352407144804	Grey	No	
103	0089_SW152_250611	HDPE (no PTFE)	20 mL	00352407145048	Grey	No	
103	0089_SW152_250611	HDPE (no PTFE)	20 mL	00352407145228	Grey	No	
104	0089_SW154_250611	HDPE (no PTFE)	20 mL	00352407197567	Grey	No	
104	0089_SW154_250611	HDPE (no PTFE)	20 mL	00352407197632	Grey	No	
105	0089_SW156_250611	HDPE (no PTFE)	20 mL	00352407145194	Grey	No	
105	0089_SW156_250611	HDPE (no PTFE)	20 mL	00352407145223	Grey	No	
106	0089_SW305_250613	HDPE (no PTFE)	20 mL	00352407197834	Grey	No	
106	0089_SW305_250613	HDPE (no PTFE)	20 mL	00352407197731	Grey	No	
106	0089_SW305_250613	HDPE (no PTFE)	20 mL	00352407197839	Grey	No	
106	0089_SW305_250613	HDPE (no PTFE)	20 mL	00352407197979	Grey	No	
107	0089_SW370_250613	HDPE (no PTFE)	20 mL	00352312034519	Grey	No	
107	0089_SW370_250613	HDPE (no PTFE)	20 mL	00352312034783	Grey	No	
108	0089_SW371_250613	HDPE (no PTFE)	20 mL	00352407198137	Grey	No	
108	0089_SW371_250613	HDPE (no PTFE)	20 mL	00352407198036	Grey	No	
109	0089_SW372_250613	HDPE (no PTFE)	20 mL	00352407197893	Grey	No	
109	0089_SW372_250613	HDPE (no PTFE)	20 mL	00352407197941	Grey	No	
110	0089_SW373_250613	HDPE (no PTFE)	20 mL	00352407197802	Grey	No	
110	0089_SW373_250613	HDPE (no PTFE)	20 mL	00352407197954	Grey	No	
111	0089_SW353_250609	HDPE (no PTFE)	20 mL	00352407197938	Grey	No	
111	0089_SW353_250609	HDPE (no PTFE)	20 mL	00352407198118	Grey	No	
112	0089_SW382_250609	HDPE (no PTFE)	20 mL	00352407197904	Grey	No	
112	0089_SW382_250609	HDPE (no PTFE)	20 mL	00352407197826	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

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TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

112	0089_SW382_250609	HDPE (no PTFE)	20 mL	00352407197775	Grey	No	
112	0089_SW382_250609	HDPE (no PTFE)	20 mL	00352407197823	Grey	No	
113	0089_SW383_250609	HDPE (no PTFE)	20 mL	00352407197725	Grey	No	
113	0089_SW383_250609	HDPE (no PTFE)	20 mL	00352407197964	Grey	No	
114	0089_SW384_250609	HDPE (no PTFE)	20 mL	00352407198011	Grey	No	
114	0089_SW384_250609	HDPE (no PTFE)	20 mL	00352407197785	Grey	No	
115	0089_SW309_250616	HDPE (no PTFE)	20 mL	00352407197815	Grey	No	
115	0089_SW309_250616	HDPE (no PTFE)	20 mL	00352407197766	Grey	No	
116	0089_SW310_250616	HDPE (no PTFE)	20 mL	00352407197679	Grey	No	
116	0089_SW310_250616	HDPE (no PTFE)	20 mL	00352407197677	Grey	No	
117	0089_SW311_250616	HDPE (no PTFE)	20 mL	00352407197642	Grey	No	
117	0089_SW311_250616	HDPE (no PTFE)	20 mL	00352407197969	Grey	No	
118	0089_SW406_250616	HDPE (no PTFE)	20 mL	00352407198067	Grey	No	
118	0089_SW406_250616	HDPE (no PTFE)	20 mL	00352407198000	Grey	No	
119	0089_SW408_250616	HDPE (no PTFE)	20 mL	00352312034655	Grey	No	
119	0089_SW408_250616	HDPE (no PTFE)	20 mL	00352312035078	Grey	No	
120	0089_SW410_250616	HDPE (no PTFE)	20 mL	00352407197782	Grey	No	
120	0089_SW410_250616	HDPE (no PTFE)	20 mL	00352407197942	Grey	No	
120	0089_SW410_250616	HDPE (no PTFE)	20 mL	00352407197856	Grey	No	
120	0089_SW410_250616	HDPE (no PTFE)	20 mL	00352407198041	Grey	No	
120	0089_SW410_250616	HDPE (no PTFE)	20 mL	00352407197555	Grey	No	
120	0089_SW410_250616	HDPE (no PTFE)	20 mL	00352407197916	Grey	No	
121	0089_SW412_250616	HDPE (no PTFE)	20 mL	00352312034650	Grey	No	
121	0089_SW412_250616	HDPE (no PTFE)	20 mL	00352312034710	Grey	No	
122	0089_SW414_250616	HDPE (no PTFE)	20 mL	00352407198019	Grey	No	
122	0089_SW414_250616	HDPE (no PTFE)	20 mL	00352407197811	Grey	No	
123	0089_SW416_250616	HDPE (no PTFE)	20 mL	00352407197721	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

123	0089_SW416_250616	HDPE (no PTFE)	20 mL	00352407197758	Grey	No	
124	0089_SW317_250612	HDPE (no PTFE)	20 mL	00352407197603	Grey	No	
124	0089_SW317_250612	HDPE (no PTFE)	20 mL	00352407197919	Grey	No	
125	0089_SW318_250612	HDPE (no PTFE)	20 mL	00352407198073	Grey	No	
125	0089_SW318_250612	HDPE (no PTFE)	20 mL	00352407197691	Grey	No	
126	0089_SW319_250612	HDPE (no PTFE)	20 mL	00352407198125	Grey	No	
126	0089_SW319_250612	HDPE (no PTFE)	20 mL	00352407198101	Grey	No	
127	0089_PW335_250613	HDPE (no PTFE)	20 mL	00352407197585	Grey	No	
127	0089_PW335_250613	HDPE (no PTFE)	20 mL	00352407197845	Grey	No	
128	0089_PW340_250613	HDPE (no PTFE)	20 mL	00352407197594	Grey	No	
128	0089_PW340_250613	HDPE (no PTFE)	20 mL	00352407197572	Grey	No	
129	0089_PW341_250613	HDPE (no PTFE)	20 mL	00352407197832	Grey	No	
129	0089_PW341_250613	HDPE (no PTFE)	20 mL	00352407197822	Grey	No	
129	0089_PW341_250613	HDPE (no PTFE)	20 mL	00352407197836	Grey	No	
129	0089_PW341_250613	HDPE (no PTFE)	20 mL	00352407197665	Grey	No	
129	0089_PW341_250613	HDPE (no PTFE)	20 mL	00352407197596	Grey	No	
129	0089_PW341_250613	HDPE (no PTFE)	20 mL	00352407197589	Grey	No	
130	0089_PW362_25613	HDPE (no PTFE)	20 mL	00352407149107	Grey	No	
130	0089_PW362_25613	HDPE (no PTFE)	20 mL	00352407149251	Grey	No	
131	0089_PW363_250613	HDPE (no PTFE)	20 mL	00352312077133	Grey	No	
131	0089_PW363_250613	HDPE (no PTFE)	20 mL	00352312076966	Grey	No	
132	0089_PW364_250613	HDPE (no PTFE)	20 mL	00352407197617	Grey	No	
132	0089_PW364_250613	HDPE (no PTFE)	20 mL	00352407198052	Grey	No	
133	0089_PW329_250611	HDPE (no PTFE)	20 mL	00352407197951	Grey	No	
133	0089_PW329_250611	HDPE (no PTFE)	20 mL	00352407197605	Grey	No	
134	0089_PW330_250611	HDPE (no PTFE)	20 mL	00352407197732	Grey	No	
134	0089_PW330_250611	HDPE (no PTFE)	20 mL	00352407197986	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

135	0089_PW331_250611	HDPE (no PTFE)	20 mL	00352407198047	Grey	No	
135	0089_PW331_250611	HDPE (no PTFE)	20 mL	00352407197609	Grey	No	
136	0089_PW356_250611	HDPE (no PTFE)	20 mL	00352407145149	Grey	No	
136	0089_PW356_250611	HDPE (no PTFE)	20 mL	00352407144827	Grey	No	
137	0089_PW357_250611	HDPE (no PTFE)	20 mL	00352407198119	Grey	No	
137	0089_PW357_250611	HDPE (no PTFE)	20 mL	00352407198035	Grey	No	
138	0089_PW358_250611	HDPE (no PTFE)	20 mL	00352407197947	Grey	No	
138	0089_PW358_250611	HDPE (no PTFE)	20 mL	00352407197696	Grey	No	
139	0089_PW304_250613	HDPE (no PTFE)	20 mL	00352407197976	Grey	No	
139	0089_PW304_250613	HDPE (no PTFE)	20 mL	00352407197693	Grey	No	
140	0089_PW345_250613	HDPE (no PTFE)	20 mL	00352407197943	Grey	No	
140	0089_PW345_250613	HDPE (no PTFE)	20 mL	00352407198070	Grey	No	
141	0089_PW368_250613	HDPE (no PTFE)	20 mL	00352407197669	Grey	No	
141	0089_PW368_250613	HDPE (no PTFE)	20 mL	00352407197741	Grey	No	
142	0089_PW369_250613	HDPE (no PTFE)	20 mL	00352407197544	Grey	No	
142	0089_PW369_250613	HDPE (no PTFE)	20 mL	00352407197568	Grey	No	
143	0089_PW350_250609	HDPE (no PTFE)	20 mL	00352407197622	Grey	No	
143	0089_PW350_250609	HDPE (no PTFE)	20 mL	00352407197728	Grey	No	
143	0089_PW350_250609	HDPE (no PTFE)	20 mL	00352407197588	Grey	No	
143	0089_PW350_250609	HDPE (no PTFE)	20 mL	00352407198136	Grey	No	
143	0089_PW350_250609	HDPE (no PTFE)	20 mL	00352407145073	Grey	No	
143	0089_PW350_250609	HDPE (no PTFE)	20 mL	00352407145226	Grey	No	
144	0089_PW351_250609	HDPE (no PTFE)	20 mL	00352407198050	Grey	No	
144	0089_PW351_250609	HDPE (no PTFE)	20 mL	00352407197894	Grey	No	
145	0089_PW352_250609	HDPE (no PTFE)	20 mL	00352407198037	Grey	No	
145	0089_PW352_250609	HDPE (no PTFE)	20 mL	00352407197828	Grey	No	
146	0089_PW380_250609	HDPE (no PTFE)	20 mL	00352407197610	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: SAMPLER MOBILE:

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

146	0089_PW380_250609	HDPE (no PTFE)	20 mL	00352407197688	Grey	No	
147	0089_PW381_250609	HDPE (no PTFE)	20 mL	00352407145111	Grey	No	
147	0089_PW381_250609	HDPE (no PTFE)	20 mL	00352407145337	Grey	No	
148	0089_PW401_250609	HDPE (no PTFE)	20 mL	00352407197915	Grey	No	
148	0089_PW401_250609	HDPE (no PTFE)	20 mL	00352407198079	Grey	No	
149	0089_PW306_250616	HDPE (no PTFE)	20 mL	00352407197577	Grey	No	
149	0089_PW306_250616	HDPE (no PTFE)	20 mL	00352407197557	Grey	No	
150	0089_PW307_250616	HDPE (no PTFE)	20 mL	00352407217029	Grey	No	
150	0089_PW307_250616	HDPE (no PTFE)	20 mL	00352407216989	Grey	No	
150	0089_PW307_250616	HDPE (no PTFE)	20 mL	00352407216742	Grey	No	
150	0089_PW307_250616	HDPE (no PTFE)	20 mL	00352407217027	Grey	No	
150	0089_PW307_250616	HDPE (no PTFE)	20 mL	00352407216877	Grey	No	
150	0089_PW307_250616	HDPE (no PTFE)	20 mL	00352407216887	Grey	No	
151	0089_PW308_250616	HDPE (no PTFE)	20 mL	00352407197626	Grey	No	
151	0089_PW308_250616	HDPE (no PTFE)	20 mL	00352407197640	Grey	No	
151	0089_PW308_250616	HDPE (no PTFE)	20 mL	00352312034407	Grey	No	
151	0089_PW308_250616	HDPE (no PTFE)	20 mL	00352312034433	Grey	No	
151	0089_PW308_250616	HDPE (no PTFE)	20 mL	00352407197830	Grey	No	
151	0089_PW308_250616	HDPE (no PTFE)	20 mL	00352407197706	Grey	No	
152	0089_PW315_250616	HDPE (no PTFE)	20 mL	00352407197990	Grey	No	
152	0089_PW315_250616	HDPE (no PTFE)	20 mL	00352407197842	Grey	No	
152	0089_PW315_250616	HDPE (no PTFE)	20 mL	00352407217169	Grey	No	
152	0089_PW315_250616	HDPE (no PTFE)	20 mL	00352407217161	Grey	No	
152	0089_PW315_250616	HDPE (no PTFE)	20 mL	00352407217121	Grey	No	
152	0089_PW315_250616	HDPE (no PTFE)	20 mL	00352407217010	Grey	No	
153	0089_PW316_250616	HDPE (no PTFE)	20 mL	00352407197914	Grey	No	
153	0089_PW316_250616	HDPE (no PTFE)	20 mL	00352407197675	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

153	0089_PW316_250616	HDPE (no PTFE)	20 mL	00352407197762	Grey	No	
153	0089_PW316_250616	HDPE (no PTFE)	20 mL	00352407198002	Grey	No	
154	0089_PW405_250616	HDPE (no PTFE)	20 mL	00352407197666	Grey	No	
154	0089_PW405_250616	HDPE (no PTFE)	20 mL	00352407197619	Grey	No	
155	0089_PW407_250616	HDPE (no PTFE)	20 mL	00352407197852	Grey	No	
155	0089_PW407_250616	HDPE (no PTFE)	20 mL	00352407197846	Grey	No	
156	0089_PW409_250616	HDPE (no PTFE)	20 mL	00352407197724	Grey	No	
156	0089_PW409_250616	HDPE (no PTFE)	20 mL	00352407197961	Grey	No	
157	0089_PW411_250616	HDPE (no PTFE)	20 mL	00352407197561	Grey	No	
157	0089_PW411_250616	HDPE (no PTFE)	20 mL	00352407197789	Grey	No	
158	0089_PW413_250616	HDPE (no PTFE)	20 mL	00352407197704	Grey	No	
158	0089_PW413_250616	HDPE (no PTFE)	20 mL	00352407197884	Grey	No	
159	0089_PW415_250616	HDPE (no PTFE)	20 mL	00352407197635	Grey	No	
159	0089_PW415_250616	HDPE (no PTFE)	20 mL	00352407197612	Grey	No	
160	0089_PW374_250612	HDPE (no PTFE)	20 mL	00352407198140	Grey	No	
160	0089_PW374_250612	HDPE (no PTFE)	20 mL	00352407197671	Grey	No	
161	0089_PW375_250612	HDPE (no PTFE)	20 mL	00352407148884	Grey	No	
161	0089_PW375_250612	HDPE (no PTFE)	20 mL	00352407148683	Grey	No	
162	0089_PW378_250612	HDPE (no PTFE)	20 mL	00352407197549	Grey	No	
162	0089_PW378_250612	HDPE (no PTFE)	20 mL	00352407197545	Grey	No	
163	0089_QC300_250603	HDPE (no PTFE)	20 mL	00352309036885	Grey	No	
163	0089_QC300_250603	HDPE (no PTFE)	20 mL	00352309036899	Grey	No	
163	0089_QC300_250603	HDPE (no PTFE)	20 mL	00352312034382	Grey	No	
163	0089_QC300_250603	HDPE (no PTFE)	20 mL	00352312034194	Grey	No	
164	0089_QC301_250604	HDPE (no PTFE)	20 mL	00352312034739	Grey	No	
164	0089_QC301_250604	HDPE (no PTFE)	20 mL	00352312034589	Grey	No	
164	0089_QC301_250604	HDPE (no PTFE)	20 mL	00352312034741	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

164	0089_QC301_250604	HDPE (no PTFE)	20 mL	00352312034188	Grey	No	
164	0089_QC301_250604	HDPE (no PTFE)	20 mL	00352312034379	Grey	No	
164	0089_QC301_250604	HDPE (no PTFE)	20 mL	00352312034817	Grey	No	
165	0089_QC400_250603	HDPE (no PTFE)	20 mL	00352312034537	Grey	No	
165	0089_QC400_250603	HDPE (no PTFE)	20 mL	00352312034614	Grey	No	
166	0089_QC401_250604	HDPE (no PTFE)	20 mL	00352312034421	Grey	No	
166	0089_QC401_250604	HDPE (no PTFE)	20 mL	00352312034464	Grey	No	
167	0089_QC100_250603	HDPE (no PTFE)	20 mL	00352312034413	Grey	No	
167	0089_QC100_250603	HDPE (no PTFE)	20 mL	00352312034432	Grey	No	
168	0089_QC101_250603	HDPE (no PTFE)	20 mL	00352312034576	Grey	No	
169	0089_QC102_250604	HDPE (no PTFE)	20 mL	00352312034800	Grey	No	
169	0089_QC102_250604	HDPE (no PTFE)	20 mL	00352312035013	Grey	No	
170	0089_QC103_250604	HDPE (no PTFE)	20 mL	00352312034600	Grey	No	
170	0089_QC103_250604	HDPE (no PTFE)	20 mL	00352312034310	Grey	No	
171	0089_QC104_250605	HDPE (no PTFE)	20 mL	00352312061077	Grey	No	
171	0089_QC104_250605	HDPE (no PTFE)	20 mL	00352312060867	Grey	No	
172	0089_QC302_250605	HDPE (no PTFE)	20 mL	00352407144906	Grey	No	
172	0089_QC302_250605	HDPE (no PTFE)	20 mL	00352407145310	Grey	No	
173	0089_QC402_250605	HDPE (no PTFE)	20 mL	00352407145249	Grey	No	
173	0089_QC402_250605	HDPE (no PTFE)	20 mL	00352407145261	Grey	No	
174	0089_QC105_250606	HDPE (no PTFE)	20 mL	00352407145273	Grey	No	
174	0089_QC105_250606	HDPE (no PTFE)	20 mL	00352407144999	Grey	No	
175	0089_QC303_250606	HDPE (no PTFE)	20 mL	00352407145236	Grey	No	
175	0089_QC303_250606	HDPE (no PTFE)	20 mL	00352407144807	Grey	No	
176	0089_QC403_250606	HDPE (no PTFE)	20 mL	00352407197645	Grey	No	
176	0089_QC403_250606	HDPE (no PTFE)	20 mL	00352407198001	Grey	No	
177	0089_QC304_250609	HDPE (no PTFE)	20 mL	00352407198131	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

177	0089_QC304_250609	HDPE (no PTFE)	20 mL	00352407197821	Grey	No	
178	0089_QC404_250609	HDPE (no PTFE)	20 mL	00352407145309	Grey	No	
178	0089_QC404_250609	HDPE (no PTFE)	20 mL	00352407145349	Grey	No	
179	0089_QC106_250609	HDPE (no PTFE)	20 mL	00352407197773	Grey	No	
179	0089_QC106_250609	HDPE (no PTFE)	20 mL	00352407197995	Grey	No	
180	0089_QC405_250610	HDPE (no PTFE)	20 mL	00352312034638	Grey	No	
180	0089_QC405_250610	HDPE (no PTFE)	20 mL	00352312034364	Grey	No	
181	0089_QC305_250610	HDPE (no PTFE)	20 mL	00352312034914	Grey	No	
181	0089_QC305_250610	HDPE (no PTFE)	20 mL	00352407216811	Grey	No	
182	0089_QC107_250611	HDPE (no PTFE)	20 mL	00352407198103	Grey	No	
182	0089_QC107_250611	HDPE (no PTFE)	20 mL	00352407198056	Grey	No	
183	0089_QC108_250611	HDPE (no PTFE)	20 mL	00352407197739	Grey	No	
183	0089_QC108_250611	HDPE (no PTFE)	20 mL	00352407197978	Grey	No	
184	0089_QC109_250611	HDPE Soil Jar	200 mL	00621223021117	Grey	No	
185	0089_QC306_250611	HDPE (no PTFE)	20 mL	00352407198123	Grey	No	
185	0089_QC306_250611	HDPE (no PTFE)	20 mL	00352407197983	Grey	No	
186	0089_QC406_250611	HDPE (no PTFE)	20 mL	00352407197629	Grey	No	
186	0089_QC406_250611	HDPE (no PTFE)	20 mL	00352407197711	Grey	No	
186	0089_QC406_250611	HDPE (no PTFE)	20 mL	00352407197745	Grey	No	
186	0089_QC406_250611	HDPE (no PTFE)	20 mL	00352407198127	Grey	No	
186	0089_QC406_250611	HDPE (no PTFE)	20 mL	00352407197566	Grey	No	
186	0089_QC406_250611	HDPE (no PTFE)	20 mL	00352407197556	Grey	No	
187	0089_QC110_250612	HDPE Soil Jar	200 mL	00621223022125	Grey	No	
188	0089_QC111_250612	HDPE (no PTFE)	20 mL	00352407197809	Grey	No	
188	0089_QC111_250612	HDPE (no PTFE)	20 mL	00352407197790	Grey	No	
189	0089_QC307_250612	HDPE (no PTFE)	20 mL	00352407197650	Grey	No	
189	0089_QC307_250612	HDPE (no PTFE)	20 mL	00352407197547	Grey	No	

CHAIN OF CUSTODY

COC#: **83715** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

190	0089_QC407_250612	HDPE (no PTFE)	20 mL	00352407197771	Grey	No	
190	0089_QC407_250612	HDPE (no PTFE)	20 mL	00352407197670	Grey	No	
191	0089_QC113_250613	HDPE Soil Jar	200 mL	00621223021090	Grey	No	
192	0089_QC112_250613	HDPE (no PTFE)	20 mL	00352407197819	Grey	No	
192	0089_QC112_250613	HDPE (no PTFE)	20 mL	00352407197623	Grey	No	
193	0089_QC114_250613	HDPE Soil Jar	200 mL	00621223021065	Grey	No	
194	0089_QC308_250613	HDPE (no PTFE)	20 mL	00352407197926	Grey	No	
194	0089_QC308_250613	HDPE (no PTFE)	20 mL	00352407198090	Grey	No	
195	0089_QC408_250613	HDPE (no PTFE)	20 mL	00352407198048	Grey	No	
195	0089_QC408_250613	HDPE (no PTFE)	20 mL	00352407198033	Grey	No	
196	0089_QC116_250616	HDPE (no PTFE)	20 mL	00352407197644	Grey	No	
196	0089_QC116_250616	HDPE (no PTFE)	20 mL	00352407197924	Grey	No	
197	0089_QC115_250616	HDPE (no PTFE)	20 mL	00352407149032	Grey	No	
197	0089_QC115_250616	HDPE (no PTFE)	20 mL	00352407148719	Grey	No	
198	0089_QC117_250616	HDPE (no PTFE)	20 mL	00352407198112	Grey	No	
198	0089_QC117_250616	HDPE (no PTFE)	20 mL	00352407198096	Grey	No	
199	0089_QC118_250616	HDPE (no PTFE)	20 mL	00352407197868	Grey	No	
199	0089_QC118_250616	HDPE (no PTFE)	20 mL	00352407197761	Grey	No	
200	0089_QC309_250616	HDPE (no PTFE)	20 mL	00352407197587	Grey	No	
200	0089_QC309_250616	HDPE (no PTFE)	20 mL	00352407197799	Grey	No	
201	0089_QC409_250616	HDPE (no PTFE)	20 mL	00352407198072	Grey	No	
201	0089_QC409_250616	HDPE (no PTFE)	20 mL	00352407197597	Grey	No	

Total Bottle Count: ALS: 426, Non ALS: 1

QUALITY CONTROL REPORT

Work Order	: **EP2509632**	Page	: 1 of 56
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Jun-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 19-Jun-2025
C-O-C number	: 83715	Issue Date	: 28-Jun-2025
Sampler	: [redacted] [redacted]		
Site	: 0089		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 203		
No. of samples analysed	: 202		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Laboratory Manager (Perth)	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6660828)									
EP2509632-062	0089_SD335_250613	EA055: Moisture Content	----	0.1	%	15.8	15.9	0.0	0% - 20%
EP2509632-072	0089_SD357_250611	EA055: Moisture Content	----	0.1	%	21.8	22.2	1.8	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6660829)									
EP2509632-082	0089_SD381_250609	EA055: Moisture Content	----	0.1	%	16.5	14.6	12.0	0% - 20%
EP2509632-092	0089_SD409_250616	EA055: Moisture Content	----	0.1	%	17.4	17.1	1.5	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6660830)									
EP2509632-193	0089_QC114_250613	EA055: Moisture Content	----	0.1	%	22.9	24.2	5.4	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6659412)									
EP2509632-062	0089_SD335_250613	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2509632-072	0089_SD357_250611	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6659412) - continued									
EP2509632-072	0089_SD357_250611	EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6659418)									
EP2509632-082	0089_SD381_250609	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2509632-092	0089_SD409_250616	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6659419)									
EP2509632-193	0089_QC114_250613	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6659412)									
EP2509632-062	0089_SD335_250613	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6659412) - continued									
EP2509632-072	0089_SD357_250611	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6659418)									
EP2509632-082	0089_SD381_250609	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2509632-092	0089_SD409_250616	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6659419)									
EP2509632-193	0089_QC114_250613	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6659419) - continued									
EP2509632-193	0089_QC114_250613	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6659412)									
EP2509632-062	0089_SD335_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2509632-072	0089_SD357_250611	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6659418)									
EP2509632-082	0089_SD381_250609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6659418) - continued									
EP2509632-082	0089_SD381_250609	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2509632-092	0089_SD409_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6659419)									
EP2509632-193	0089_QC114_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6659412)									
EP2509632-062	0089_SD335_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6659412) - continued									
EP2509632-062	0089_SD335_250613	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2509632-072	0089_SD357_250611	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6659418)									
EP2509632-082	0089_SD381_250609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2509632-092	0089_SD409_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6659419)									
EP2509632-193	0089_QC114_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6659412)									

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231P: PFAS Sums (QC Lot: 6659412) - continued									
EP2509632-062	0089_SD335_250613	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2509632-072	0089_SD357_250611	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6659418)									
EP2509632-082	0089_SD381_250609	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2509632-092	0089_SD409_250616	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6659419)									
EP2509632-193	0089_QC114_250613	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662545)									
EP2509632-143	0089_PW350_250609	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.04	0.06	29.6	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662566)									
EP2509632-006	0089_MW123_250606	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.48	0.47	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.06	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.06	0.06	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662566) - continued									
EP2509632-006	0089_MW123_250606	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-008	0089_MW125_250606	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.15	0.16	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.02	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662576)									
EP2509632-011	0089_MW128_250606	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.85	0.86	0.0	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-023	0089_MW195S_250610	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662582)									
EP2509632-030	0089_MW217_250605	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662582) - continued									
EP2509632-030	0089_MW217_250605	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-033	0089_MW225_250605	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662593)									
EP2509632-043	0089_MW240_250612	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.11	0.12	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.02	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-058	0089_MW141_250611	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01 (0.04)*	µg/L	12.7	14.2	11.3	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01 (0.04)*	µg/L	36.7	43.7	17.4	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	0.10	0.12	15.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.37	0.41	10.9	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.71	0.82	13.3	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02 (0.04)*	µg/L	0.77	0.83	7.3	0% - 50%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02 (0.04)*	µg/L	0.09	0.13	34.4	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662598)									
EP2509632-106	0089_SW305_250613	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-120	0089_SW410_250616	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662598) - continued									
EP2509632-120	0089_SW410_250616	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662601)									
EP2509632-112	0089_SW382_250609	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-129	0089_PW341_250613	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662603)									
EP2509632-150	0089_PW307_250616	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-151	0089_PW308_250616	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662603) - continued									
EP2509632-151	0089_PW308_250616	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6662606)									
EP2509632-152	0089_PW315_250616	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2509632-163	0089_QC300_250603	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662545)									
EP2509632-143	0089_PW350_250609	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662566)									
EP2509632-006	0089_MW123_250606	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662566) - continued									
EP2509632-006	0089_MW123_250606	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-008	0089_MW125_250606	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.05	0.06	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662576)									
EP2509632-011	0089_MW128_250606	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-023	0089_MW195S_250610	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662576) - continued									
EP2509632-023	0089_MW195S_250610	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662582)									
EP2509632-030	0089_MW217_250605	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.29	0.33	12.6	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	9.65	9.84	2.0	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	4.00	4.15	3.7	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	1.00	1.04	4.5	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	2.0	2.0	0.0	0% - 20%
EP2509632-033	0089_MW225_250605	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662593)									
EP2509632-043	0089_MW240_250612	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662593) - continued									
EP2509632-043	0089_MW240_250612	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-058	0089_MW141_250611	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	1.16	1.28	9.7	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.97	1.10	12.7	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02 (0.04)*	µg/L	8.78	9.79	10.9	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.25	0.28	14.0	0% - 50%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.2	0.3	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662598)									
EP2509632-106	0089_SW305_250613	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-120	0089_SW410_250616	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662601)									
EP2509632-112	0089_SW382_250609	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662601) - continued									
EP2509632-112	0089_SW382_250609	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-129	0089_PW341_250613	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662603)									
EP2509632-150	0089_PW307_250616	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-151	0089_PW308_250616	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662603) - continued									
EP2509632-151	0089_PW308_250616	EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6662606)									
EP2509632-152	0089_PW315_250616	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2509632-163	0089_QC300_250603	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662545)									
EP2509632-143	0089_PW350_250609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662545) - continued									
EP2509632-143	0089_PW350_250609	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662566)									
EP2509632-006	0089_MW123_250606	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-008	0089_MW125_250606	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662576)									
EP2509632-011	0089_MW128_250606	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662576) - continued									
EP2509632-011	0089_MW128_250606	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-023	0089_MW195S_250610	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662582)									
EP2509632-030	0089_MW217_250605	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-033	0089_MW225_250605	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662582) - continued									
EP2509632-033	0089_MW225_250605	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662593)									
EP2509632-043	0089_MW240_250612	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-058	0089_MW141_250611	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662598)									
EP2509632-106	0089_SW305_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662598) - continued									
EP2509632-106	0089_SW305_250613	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-120	0089_SW410_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662601)									
EP2509632-112	0089_SW382_250609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-129	0089_PW341_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662601) - continued									
EP2509632-129	0089_PW341_250613	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662603)									
EP2509632-150	0089_PW307_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-151	0089_PW308_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662606)									
EP2509632-152	0089_PW315_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6662606) - continued									
EP2509632-152	0089_PW315_250616	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-163	0089_QC300_250603	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662545)									
EP2509632-143	0089_PW350_250609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662566)									
EP2509632-006	0089_MW123_250606	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-008	0089_MW125_250606	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662566) - continued									
EP2509632-008	0089_MW125_250606	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662576)									
EP2509632-011	0089_MW128_250606	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-023	0089_MW195S_250610	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662582)									
EP2509632-030	0089_MW217_250605	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	15.4	17.8	14.9	0% - 20%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	0.24	0.28	14.7	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-033	0089_MW225_250605	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662593)									
EP2509632-043	0089_MW240_250612	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662593) - continued									
EP2509632-043	0089_MW240_250612	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-058	0089_MW141_250611	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662598)									
EP2509632-106	0089_SW305_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-120	0089_SW410_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662601)									
EP2509632-112	0089_SW382_250609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662601) - continued									
EP2509632-129	0089_PW341_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662603)									
EP2509632-150	0089_PW307_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-151	0089_PW308_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662606)									
EP2509632-152	0089_PW315_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2509632-163	0089_QC300_250603	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6662606) - continued									
EP2509632-163	0089_QC300_250603	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662545)									
EP2509632-143	0089_PW350_250609	EP231X: Sum of PFAS	----	0.01	µg/L	0.04	0.06	40.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.04	0.06	40.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.04	0.06	40.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662566)									
EP2509632-006	0089_MW123_250606	EP231X: Sum of PFAS	----	0.01	µg/L	0.78	0.76	2.6	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.55	0.53	3.7	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.71	0.69	2.9	0% - 20%
EP2509632-008	0089_MW125_250606	EP231X: Sum of PFAS	----	0.01	µg/L	0.23	0.26	12.2	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.16	0.18	11.8	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.21	0.24	13.3	0% - 20%
EP231P: PFAS Sums (QC Lot: 6662576)									
EP2509632-011	0089_MW128_250606	EP231X: Sum of PFAS	----	0.01	µg/L	0.94	0.96	2.1	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.88	0.89	1.1	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.94	0.96	2.1	0% - 20%
EP2509632-023	0089_MW195S_250610	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662582)									
EP2509632-030	0089_MW217_250605	EP231X: Sum of PFAS	----	0.01 (0.02)*	µg/L	32.7	35.6	8.4	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.09	0.09	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01 (0.02)*	µg/L	32.7	35.5	8.4	0% - 20%
EP2509632-033	0089_MW225_250605	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662593)									
EP2509632-043	0089_MW240_250612	EP231X: Sum of PFAS	----	0.01	µg/L	0.12	0.14	15.4	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.12	0.14	15.4	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.12	0.14	15.4	0% - 50%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 6662593) - continued									
EP2509632-058	0089_MW141_250611	EP231X: Sum of PFAS	----	0.01 (0.04)*	µg/L	62.8	73.0	15.0	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01 (0.04)*	µg/L	49.4	57.9	15.8	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01 (0.04)*	µg/L	61.1	71.1	15.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 6662598)									
EP2509632-106	0089_SW305_250613	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2509632-120	0089_SW410_250616	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662601)									
EP2509632-112	0089_SW382_250609	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2509632-129	0089_PW341_250613	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662603)									
EP2509632-150	0089_PW307_250616	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2509632-151	0089_PW308_250616	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6662606)									
EP2509632-152	0089_PW315_250616	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2509632-163	0089_QC300_250603	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 6662606) - continued									
EP2509632-163	0089_QC300_250603	EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659412)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	96.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	96.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	101	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	90.9	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	87.5	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	76.2	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659418)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	105	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	94.1	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	97.5	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	99.6	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	96.2	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	75.0	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659419)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	105	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	93.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	102	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	99.1	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	88.3	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	72.9	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659412)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	102	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	72.0	129

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659412) - continued								
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	134	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	118	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659418)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	102	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	93.6	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659419)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	100	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	113	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659412)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	62.8	140

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659412) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	106	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.6	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659418)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	93.4	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	93.4	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	114	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659419)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	128	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	106	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659412)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	111	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	94.9	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	99.6	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	74.2	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659418)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659418) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	109	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	105	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	56.7	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659419)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	101	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	104	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	97.5	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	56.2	54.8	124
EP231P: PFAS Sums (QCLot: 6659412)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6659418)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6659419)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662545)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	100	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	102	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	94.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	96.3	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	101	70.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662545) - continued								
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	107	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662566)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	95.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	96.5	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	90.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	95.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	102	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	123	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	121	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662576)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	94.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	97.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	94.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	92.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	95.0	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	94.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662582)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	96.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	98.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	109	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	100	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	119	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	115	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662593)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	97.6	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	94.0	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	97.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	102	69.0	134

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662593) - continued								
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.0	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662598)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	93.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	98.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	96.5	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	99.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	100	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	95.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662601)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	85.7	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	112	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	97.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	101	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662603)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	99.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	98.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	95.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	98.5	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	103	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	108	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	96.3	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662606)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	92.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	107	71.0	127

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662606) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	94.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	99.2	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	101	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	101	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662545)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	98.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	93.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	100	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662566)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	111	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	87.0	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	99.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	82.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	84.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	89.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	92.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662576)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	95.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	99.0	72.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662576) - continued								
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	91.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	99.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	88.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	83.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	82.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662582)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	105	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	97.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	99.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	114	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	126	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662593)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	95.8	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	97.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	94.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	95.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662598)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.9	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.4	72.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662598) - continued								
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	99.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	95.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662601)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	100	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	99.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	95.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	89.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	88.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662603)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	104	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	100	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662606)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662606) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	106	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	107	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662545)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	79.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	114	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	100	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	101	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	117	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662566)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	84.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	116	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662576)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662576) - continued								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	113	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.4	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	104	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	99.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	83.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662582)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	130	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	112	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	116	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	115	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	115	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	107	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662593)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	121	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	107	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	109	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662598)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	124	68.0	141

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662598) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	108	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	96.6	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	104	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	96.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662601)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	119	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	111	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	101	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	117	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662603)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	113	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	107	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	110	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	104	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	107	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662606)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	82.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	129	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	110	60.5	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662606) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.6	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662545)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	102	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	112	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	138	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	102	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662566)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	115	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	95.9	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	107	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	114	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662576)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	99.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	96.4	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	102	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662582)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	104	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	118	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	117	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	89.2	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662593)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	101	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	104	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	102	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	91.5	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662598)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	102	63.0	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662598) - continued								
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	106	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	102	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662601)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	111	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	123	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	135	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	98.5	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662603)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	103	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	103	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	103	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662606)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	100	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	118	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	# 144	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	116	64.2	133
EP231P: PFAS Sums (QCLot: 6662545)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662566)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662576)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662582)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 6662582) - continued								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662593)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662598)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662601)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662603)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6662606)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659412)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659412) - continued							
EP2509632-063	0089_SD340_250613	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	93.2	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	99.1	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	93.7	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	111	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	93.0	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	92.9	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	91.3	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659418)							
EP2509632-083	0089_SD401_250609	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	105	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	120	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	89.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	104	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	91.1	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	104	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	107	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6659419)							
EP2509632-203	0089_SD346_250613	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	106	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	95.7	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	107	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	117	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	79.6	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	117	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659412)							
EP2509632-063	0089_SD340_250613	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	102	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	101	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	99.6	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	104	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	104	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	108	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	99.5	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	93.1	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	93.7	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	98.1	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659418)							
EP2509632-083	0089_SD401_250609	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	97.9	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	100.0	69.0	132

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659418) - continued							
EP2509632-083	0089_SD401_250609	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	102	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	100	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	103	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	98.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	112	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	104	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	88.4	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	113	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	103	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6659419)							
EP2509632-203	0089_SD346_250613	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	98.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	108	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	100	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	102	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	97.8	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	107	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	110	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	105	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	79.5	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	132	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659412)							
EP2509632-063	0089_SD340_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	102	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	112	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	96.0	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	106	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	104	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	104	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	110	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659418)							
EP2509632-083	0089_SD401_250609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	103	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	114	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	98.2	60.0	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659418) - continued							
EP2509632-083	0089_SD401_250609	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	102	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	114	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	107	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	109	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6659419)							
EP2509632-203	0089_SD346_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	88.8	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	97.1	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	105	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	105	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	111	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	111	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	98.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659412)							
EP2509632-063	0089_SD340_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	97.4	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	97.1	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	96.2	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659418)							
EP2509632-083	0089_SD401_250609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	95.7	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	108	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	102	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	77.9	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6659419)							
EP2509632-203	0089_SD346_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	71.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	114	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	124	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	86.7	60.0	130

Sub-Matrix: **WATER**

Matrix Spike (MS) Report: Spike	Matrix Spike (MS) Report: SpikeRecovery(%)	Matrix Spike (MS) Report: Acceptable Limits (%)

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662545)							
EP2509632-143	0089_PW350_250609	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	95.7	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	95.3	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	104	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	98.9	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	99.3	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	106	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662566)							
EP2509632-008	0089_MW125_250606	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	83.3	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	96.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	89.6	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	92.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	103	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	95.1	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	100	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662576)							
EP2509632-011	0089_MW128_250606	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	99.7	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	103	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	93.0	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	93.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	94.4	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	99.2	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662582)							
EP2509632-033	0089_MW225_250605	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	86.5	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	110	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	103	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	103	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	99.5	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	98.9	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	115	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662593)							
EP2509632-043	0089_MW240_250612	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	94.8	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	95.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	94.4	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	100	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	97.5	65.0	140

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662593) - continued							
EP2509632-043	0089_MW240_250612	EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	103	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	98.3	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662598)							
EP2509632-120	0089_SW410_250616	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	98.3	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	105	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	95.5	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	93.9	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	98.6	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	97.3	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	92.9	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662601)							
EP2509632-129	0089_PW341_250613	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	86.6	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	99.7	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	95.3	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	94.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	109	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	73.5	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	120	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662603)							
EP2509632-150	0089_PW307_250616	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	101	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	100	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	97.6	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	97.1	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	99.6	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	97.9	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	93.4	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6662606)							
EP2509632-152	0089_PW315_250616	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	93.3	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	113	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	97.6	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	104	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	107	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	113	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	114	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662545)							
EP2509632-143	0089_PW350_250609	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.4	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	91.1	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	102	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662545) - continued							
EP2509632-143	0089_PW350_250609	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	99.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	103	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	114	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	118	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	106	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	109	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662566)							
EP2509632-008	0089_MW125_250606	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	98.6	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	86.0	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	92.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	95.1	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.5	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	120	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.2	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	90.2	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	80.9	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	85.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	93.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662576)							
EP2509632-011	0089_MW128_250606	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	93.6	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	92.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	94.0	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	96.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	83.9	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	100	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	86.4	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	106	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	104	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	93.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	94.5	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662582)							
EP2509632-033	0089_MW225_250605	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.8	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	106	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	97.3	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	106	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662582) - continued							
EP2509632-033	0089_MW225_250605	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	118	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	109	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	118	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	117	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	107	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	121	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662593)							
EP2509632-043	0089_MW240_250612	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	94.2	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	95.4	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	95.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	93.8	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	94.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	103	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	97.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	100	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662598)							
EP2509632-120	0089_SW410_250616	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.8	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	101	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	96.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	95.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	96.9	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	98.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	103	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	102	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	101	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662601)							
EP2509632-129	0089_PW341_250613	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	90.2	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	104	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	95.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	100	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.7	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	95.7	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	105	71.0	134

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662601) - continued							
EP2509632-129	0089_PW341_250613	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	115	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	102	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	104	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	119	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662603)							
EP2509632-150	0089_PW307_250616	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.0	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	98.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	99.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	102	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	103	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	99.2	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	103	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	97.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	98.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	98.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6662606)							
EP2509632-152	0089_PW315_250616	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	106	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	94.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	103	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	102	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	106	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	105	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	110	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	114	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	102	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662545)							
EP2509632-143	0089_PW350_250609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	83.5	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	105	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	111	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	108	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	107	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	107	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662545) - continued							
EP2509632-143	0089_PW350_250609	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	99.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662566)							
EP2509632-008	0089_MW125_250606	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	87.8	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	125	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	94.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	117	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	107	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	130	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662576)							
EP2509632-011	0089_MW128_250606	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.2	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	104	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	86.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	98.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	92.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662582)							
EP2509632-033	0089_MW225_250605	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	104	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	123	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	111	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	121	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	119	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.3	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662582) - continued							
EP2509632-033	0089_MW225_250605	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	113	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662593)							
EP2509632-043	0089_MW240_250612	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	103	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	118	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	111	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	101	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	98.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	97.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662598)							
EP2509632-120	0089_SW410_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.0	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	118	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	105	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	108	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	116	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	93.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662601)							
EP2509632-129	0089_PW341_250613	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	86.9	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	127	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	120	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	105	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	109	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	100	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662601) - continued							
EP2509632-129	0089_PW341_250613	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	131	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662603)							
EP2509632-150	0089_PW307_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	100	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	98.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	103	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	109	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	100	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	98.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6662606)							
EP2509632-152	0089_PW315_250616	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	82.6	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	122	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	108	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	112	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	118	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662545)							
EP2509632-143	0089_PW350_250609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	108	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	122	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	130	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662566)							
EP2509632-008	0089_MW125_250606	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	121	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	103	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	# 197	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	# 136	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662576)							
EP2509632-011	0089_MW128_250606	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	104	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	100	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	116	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662582)							
EP2509632-033	0089_MW225_250605	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	114	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	137	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	105	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	120	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662593)							
EP2509632-043	0089_MW240_250612	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	102	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	106	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	105	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	84.3	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662598)							
EP2509632-120	0089_SW410_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	107	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	104	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662601)							
EP2509632-129	0089_PW341_250613	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	114	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	134	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	122	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	129	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662603)							
EP2509632-150	0089_PW307_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	102	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	102	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6662606)							
EP2509632-152	0089_PW315_250616	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	110	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	127	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	108	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2509632**	Page	: 1 of 25
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 18-Jun-2025
Site	: 0089	Issue Date	: 28-Jun-2025
Sampler	: [redacted] [redacted]	No. of samples received	: 203
Order number	: 12641234/02.2.6	No. of samples analysed	: 202

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	QC-6662606-002	----	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	144 %	67.0-138%	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	EP2509632--011	0089_MW128_250606	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2509632--008	0089_MW125_250606	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	197 %	67.0-138%	**Recovery greater than upper data quality objective**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2509632--008	0089_MW125_250606	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	136 %	70.0-130%	**Recovery greater than upper data quality objective**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / ***Container*** / Client Sample ID(s)	***Sample Date***	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	***Date analysed***	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0089_SD350_250609, 0089_SD351_250609, 0089_SD352_250609, 0089_SD380_250609, 0089_SD381_250609, 0089_SD401_250609	**09-Jun-2025**	**----**	----	----	**19-Jun-2025**	23-Jun-2025	✓
HDPE Soil Jar (EA055) 0089_SD329_250611, 0089_SD330_250611, 0089_SD331_250611, 0089_SD356_250611, 0089_SD357_250611, 0089_SD358_250611, 0089_QC109_250611	**11-Jun-2025**	**----**	----	----	**19-Jun-2025**	25-Jun-2025	✓
HDPE Soil Jar (EA055) 0089_SD374_250612, 0089_SD375_250612, 0089_SD378_250612, 0089_QC110_250612	**12-Jun-2025**	**----**	----	----	**19-Jun-2025**	26-Jun-2025	✓
HDPE Soil Jar (EA055)							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C) - Continued							
0089_SD335_250613, 0089_SD340_250613, 0089_SD341_250613, 0089_SD362_250613, 0089_SD363_250613, 0089_SD364_250613, 0089_SD304_250613, 0089_SD345_250613, 0089_SD368_250613, 0089_SD369_250613, 0089_QC113_250613, 0089_QC114_250613	**13-Jun-2025**	**----**	----	**----**	**19-Jun-2025**	27-Jun-2025	✓
HDPE Soil Jar (EA055) 0089_SD306_250616, 0089_SD307_250616, 0089_SD308_250616, 0089_SD314_250616, 0089_SD315_250616, 0089_SD316_250616, 0089_SD405_250616, 0089_SD407_250616, 0089_SD409_250616, 0089_SD411_250616, 0089_SD413_250616, 0089_SD415_250616	**16-Jun-2025**	**----**	----	**----**	**19-Jun-2025**	30-Jun-2025	✓
HDPE Soil Jar (EA055) 0089_SD346_250613	**17-Jun-2025**	**----**	----	**----**	**19-Jun-2025**	01-Jul-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD350_250609, 0089_SD351_250609, 0089_SD352_250609, 0089_SD380_250609, 0089_SD381_250609, 0089_SD401_250609	**09-Jun-2025**	**23-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD329_250611, 0089_SD330_250611, 0089_SD331_250611, 0089_SD356_250611, 0089_SD357_250611, 0089_SD358_250611, 0089_QC109_250611	**11-Jun-2025**	**23-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD374_250612, 0089_SD375_250612, 0089_SD378_250612, 0089_QC110_250612	**12-Jun-2025**	**23-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_250613, 0089_SD340_250613, 0089_SD341_250613, 0089_SD362_250613, 0089_SD363_250613, 0089_SD364_250613, 0089_SD304_250613, 0089_SD345_250613, 0089_SD368_250613, 0089_SD369_250613, 0089_QC113_250613, 0089_QC114_250613	**13-Jun-2025**	**23-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250616, 0089_SD307_250616, 0089_SD308_250616, 0089_SD314_250616, 0089_SD315_250616, 0089_SD316_250616, 0089_SD405_250616, 0089_SD407_250616, 0089_SD409_250616, 0089_SD411_250616, 0089_SD413_250616, 0089_SD415_250616	**16-Jun-2025**	**23-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD346_250613	**17-Jun-2025**	**23-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0089_SD350_250609, 0089_SD351_250609, 0089_SD352_250609, 0089_SD380_250609, 0089_SD381_250609, 0089_SD401_250609	**09-Jun-2025**	**23-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD329_250611, 0089_SD330_250611, 0089_SD331_250611, 0089_SD356_250611, 0089_SD357_250611, 0089_SD358_250611, 0089_QC109_250611	**11-Jun-2025**	**23-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD374_250612, 0089_SD375_250612, 0089_SD378_250612, 0089_QC110_250612	**12-Jun-2025**	**23-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250613, 0089_SD340_250613, 0089_SD341_250613, 0089_SD362_250613, 0089_SD363_250613, 0089_SD364_250613, 0089_SD304_250613, 0089_SD345_250613, 0089_SD368_250613, 0089_SD369_250613, 0089_QC113_250613, 0089_QC114_250613	**13-Jun-2025**	**23-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD306_250616, 0089_SD307_250616, 0089_SD308_250616, 0089_SD314_250616, 0089_SD315_250616, 0089_SD316_250616, 0089_SD405_250616, 0089_SD407_250616, 0089_SD409_250616, 0089_SD411_250616, 0089_SD413_250616, 0089_SD415_250616	**16-Jun-2025**	**23-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD346_250613	**17-Jun-2025**	**23-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0089_SD350_250609, 0089_SD351_250609, 0089_SD352_250609, 0089_SD380_250609, 0089_SD381_250609, 0089_SD401_250609	**09-Jun-2025**	**23-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD329_250611, 0089_SD330_250611, 0089_SD331_250611, 0089_SD356_250611, 0089_SD357_250611, 0089_SD358_250611, 0089_QC109_250611	**11-Jun-2025**	**23-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD374_250612, 0089_SD375_250612, 0089_SD378_250612, 0089_QC110_250612	**12-Jun-2025**	**23-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_250613, 0089_SD340_250613, 0089_SD341_250613, 0089_SD362_250613, 0089_SD363_250613, 0089_SD364_250613, 0089_SD304_250613, 0089_SD345_250613, 0089_SD368_250613, 0089_SD369_250613, 0089_QC113_250613, 0089_QC114_250613	**13-Jun-2025**	**23-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250616, 0089_SD307_250616, 0089_SD308_250616, 0089_SD314_250616, 0089_SD315_250616, 0089_SD316_250616, 0089_SD405_250616, 0089_SD407_250616, 0089_SD409_250616, 0089_SD411_250616, 0089_SD413_250616, 0089_SD415_250616	**16-Jun-2025**	**23-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD346_250613	**17-Jun-2025**	**23-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD350_250609, 0089_SD351_250609, 0089_SD352_250609, 0089_SD380_250609, 0089_SD381_250609, 0089_SD401_250609	**09-Jun-2025**	**23-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD329_250611, 0089_SD330_250611, 0089_SD331_250611, 0089_SD356_250611, 0089_SD357_250611, 0089_SD358_250611, 0089_QC109_250611	**11-Jun-2025**	**23-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD374_250612, 0089_SD375_250612, 0089_SD378_250612, 0089_QC110_250612	**12-Jun-2025**	**23-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD335_250613, 0089_SD340_250613, 0089_SD341_250613, 0089_SD362_250613, 0089_SD363_250613, 0089_SD364_250613, 0089_SD304_250613, 0089_SD345_250613, 0089_SD368_250613, 0089_SD369_250613, 0089_QC113_250613, 0089_QC114_250613	**13-Jun-2025**	**23-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD306_250616, 0089_SD307_250616, 0089_SD308_250616, 0089_SD314_250616, 0089_SD315_250616, 0089_SD316_250616, 0089_SD405_250616, 0089_SD407_250616, 0089_SD409_250616, 0089_SD411_250616, 0089_SD413_250616, 0089_SD415_250616	**16-Jun-2025**	**23-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X)							
0089_SD346_250613	**17-Jun-2025**	**23-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0089_SD350_250609, 0089_SD351_250609, 0089_SD352_250609, 0089_SD380_250609, 0089_SD381_250609, 0089_SD401_250609	**09-Jun-2025**	**23-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD329_250611, 0089_SD330_250611, 0089_SD331_250611, 0089_SD356_250611, 0089_SD357_250611, 0089_SD358_250611, 0089_QC109_250611	**11-Jun-2025**	**23-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD374_250612, 0089_SD375_250612, 0089_SD378_250612, 0089_QC110_250612	**12-Jun-2025**	**23-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD335_250613, 0089_SD340_250613, 0089_SD341_250613, 0089_SD362_250613, 0089_SD363_250613, 0089_SD364_250613, 0089_SD304_250613, 0089_SD345_250613, 0089_SD368_250613, 0089_SD369_250613, 0089_QC113_250613, 0089_QC114_250613	**13-Jun-2025**	**23-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250616, 0089_SD307_250616, 0089_SD308_250616, 0089_SD314_250616, 0089_SD315_250616, 0089_SD316_250616, 0089_SD405_250616, 0089_SD407_250616, 0089_SD409_250616, 0089_SD411_250616, 0089_SD413_250616, 0089_SD415_250616	**16-Jun-2025**	**23-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓
HDPE Soil Jar (EP231X) 0089_SD346_250613	**17-Jun-2025**	**23-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	02-Aug-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_MW268_250603, 0089_MW269_250603, 0089_MW496_250604, 0089_MW255_250603, 0089_MW257_250603, 0089_MW258_250603, 0089_MW553_250603, 0089_MW010_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**20-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC101_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**23-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW256_250603, 0089_MW259_250603, 0089_QC300_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**24-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250604, 0089_MW289_250604, 0089_MW242_250604, 0089_MW249_250604, 0089_MW516_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**20-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC400_250603, 0089_QC401_250604, 0089_QC100_250603, 0089_QC103_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**23-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC301_250604, 0089_QC102_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**24-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250605, 0089_MW215_250605, 0089_MW216_250605, 0089_MW217_250605, 0089_MW220_250605, 0089_MW224_250605, 0089_MW225_250605, 0089_MW226_250605, 0089_MW227_250605, 0089_MW228_250605, 0089_MW282_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**20-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC104_250605, 0089_QC302_250605, 0089_QC402_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**24-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW128_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**20-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_250606, 0089_MW120_250606, 0089_MW121_250606, 0089_MW123_250606, 0089_MW124_250606, 0089_MW125_250606, 0089_MW126_250606, 0089_MW127_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**23-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_250606, 0089_MW500_250606, 0089_QC105_250606, 0089_QC303_250606, 0089_QC403_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**24-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250609, 0089_SW383_250609, 0089_SW384_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**20-Jun-2025**	06-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
HDPE (no PTFE) (EP231X) 0089_MW158_250606, 0089_MW161_250609, 0089_MW166_250609, 0089_MW171_250609, 0089_SW382_250609, 0089_PW381_250609, 0089_PW401_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**23-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW350_250609, 0089_PW351_250609, 0089_PW352_250609, 0089_PW380_250609, 0089_QC304_250609, 0089_QC404_250609, 0089_QC106_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW173_250610, 0089_MW193_250610, 0089_MW199_250610, 0089_MW200_250610, 0089_MW202_250610, 0089_MW203_250610, 0089_MW195D_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**23-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW468_250610, 0089_QC405_250610, 0089_QC305_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**24-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW139_250611, 0089_MW141_250611, 0089_MW142_250611, 0089_MW147_250611, 0089_MW149_250611, 0089_SW150_250611, 0089_SW152_250611, 0089_SW154_250611, 0089_SW156_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**20-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250611, 0089_PW330_250611, 0089_PW331_250611, 0089_PW356_250611, 0089_PW357_250611, 0089_PW358_250611, 0089_QC107_250611, 0089_QC108_250611, 0089_QC306_250611, 0089_QC406_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW233_250612, 0089_MW236_250612, 0089_MW238_250612, 0089_MW240_250612, 0089_MW243_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**20-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW374_250612, 0089_PW375_250612, 0089_PW378_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**23-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW245_250612, 0089_SW317_250612, 0089_SW318_250612, 0089_SW319_250612, 0089_QC111_250612, 0089_QC307_250612, 0089_QC407_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0089_SW130_250613, 0089_SW132_250613, 0089_SW134_250613, 0089_SW370_250613, 0089_SW371_250613, 0089_SW373_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**20-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW341_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**23-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250613, 0089_SW372_250613, 0089_PW335_250613, 0089_PW340_250613, 0089_PW362_25613, 0089_PW363_250613, 0089_PW364_250613, 0089_PW304_250613, 0089_PW345_250613, 0089_PW368_250613, 0089_PW369_250613, 0089_QC112_250613, 0089_QC308_250613, 0089_QC408_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250616, 0089_SW310_250616, 0089_SW311_250616, 0089_SW406_250616, 0089_SW408_250616, 0089_SW412_250616, 0089_SW414_250616, 0089_SW416_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**20-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW306_250616, 0089_PW405_250616, 0089_PW407_250616, 0089_PW409_250616, 0089_PW411_250616, 0089_PW413_250616, 0089_PW415_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**23-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW410_250616, 0089_PW307_250616, 0089_PW308_250616, 0089_PW315_250616, 0089_PW316_250616, 0089_QC116_250616, 0089_QC115_250616, 0089_QC117_250616, 0089_QC118_250616, 0089_QC309_250616, 0089_QC409_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW346_250613	**17-Jun-2025**	**20-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	14-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0089_MW268_250603, 0089_MW269_250603, 0089_MW496_250604, 0089_MW255_250603, 0089_MW257_250603, 0089_MW258_250603, 0089_MW553_250603, 0089_MW010_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**20-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC101_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**23-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW256_250603, 0089_MW259_250603, 0089_QC300_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**24-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250604, 0089_MW289_250604, 0089_MW242_250604, 0089_MW249_250604, 0089_MW516_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**20-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC400_250603, 0089_QC401_250604, 0089_QC100_250603, 0089_QC103_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**23-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC301_250604, 0089_QC102_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**24-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250605, 0089_MW215_250605, 0089_MW216_250605, 0089_MW217_250605, 0089_MW220_250605, 0089_MW224_250605, 0089_MW225_250605, 0089_MW226_250605, 0089_MW227_250605, 0089_MW228_250605, 0089_MW282_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**20-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC104_250605, 0089_QC302_250605, 0089_QC402_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**24-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW128_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**20-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_250606, 0089_MW120_250606, 0089_MW121_250606, 0089_MW123_250606, 0089_MW124_250606, 0089_MW125_250606, 0089_MW126_250606, 0089_MW127_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**23-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_250606, 0089_MW500_250606, 0089_QC105_250606, 0089_QC303_250606, 0089_QC403_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**24-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250609, 0089_SW383_250609, 0089_SW384_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**20-Jun-2025**	06-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
HDPE (no PTFE) (EP231X) 0089_MW158_250606, 0089_MW161_250609, 0089_MW166_250609, 0089_MW171_250609, 0089_SW382_250609, 0089_PW381_250609, 0089_PW401_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**23-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW350_250609, 0089_PW351_250609, 0089_PW352_250609, 0089_PW380_250609, 0089_QC304_250609, 0089_QC404_250609, 0089_QC106_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW173_250610, 0089_MW193_250610, 0089_MW199_250610, 0089_MW200_250610, 0089_MW202_250610, 0089_MW203_250610, 0089_MW195D_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**23-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW468_250610, 0089_QC405_250610, 0089_QC305_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**24-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW139_250611, 0089_MW141_250611, 0089_MW142_250611, 0089_MW147_250611, 0089_MW149_250611, 0089_SW150_250611, 0089_SW152_250611, 0089_SW154_250611, 0089_SW156_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**20-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250611, 0089_PW330_250611, 0089_PW331_250611, 0089_PW356_250611, 0089_PW357_250611, 0089_PW358_250611, 0089_QC107_250611, 0089_QC108_250611, 0089_QC306_250611, 0089_QC406_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW233_250612, 0089_MW236_250612, 0089_MW238_250612, 0089_MW240_250612, 0089_MW243_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**20-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW374_250612, 0089_PW375_250612, 0089_PW378_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**23-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW245_250612, 0089_SW317_250612, 0089_SW318_250612, 0089_SW319_250612, 0089_QC111_250612, 0089_QC307_250612, 0089_QC407_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0089_SW130_250613, 0089_SW132_250613, 0089_SW134_250613, 0089_SW370_250613, 0089_SW371_250613, 0089_SW373_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**20-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW341_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**23-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250613, 0089_SW372_250613, 0089_PW335_250613, 0089_PW340_250613, 0089_PW362_25613, 0089_PW363_250613, 0089_PW364_250613, 0089_PW304_250613, 0089_PW345_250613, 0089_PW368_250613, 0089_PW369_250613, 0089_QC112_250613, 0089_QC308_250613, 0089_QC408_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250616, 0089_SW310_250616, 0089_SW311_250616, 0089_SW406_250616, 0089_SW408_250616, 0089_SW412_250616, 0089_SW414_250616, 0089_SW416_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**20-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW306_250616, 0089_PW405_250616, 0089_PW407_250616, 0089_PW409_250616, 0089_PW411_250616, 0089_PW413_250616, 0089_PW415_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**23-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW410_250616, 0089_PW307_250616, 0089_PW308_250616, 0089_PW315_250616, 0089_PW316_250616, 0089_QC116_250616, 0089_QC115_250616, 0089_QC117_250616, 0089_QC118_250616, 0089_QC309_250616, 0089_QC409_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW346_250613	**17-Jun-2025**	**20-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	14-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0089_MW268_250603, 0089_MW269_250603, 0089_MW496_250604, 0089_MW255_250603, 0089_MW257_250603, 0089_MW258_250603, 0089_MW553_250603, 0089_MW010_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**20-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC101_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**23-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW256_250603, 0089_MW259_250603, 0089_QC300_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**24-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250604, 0089_MW289_250604, 0089_MW242_250604, 0089_MW249_250604, 0089_MW516_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**20-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC400_250603, 0089_QC401_250604, 0089_QC100_250603, 0089_QC103_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**23-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC301_250604, 0089_QC102_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**24-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250605, 0089_MW215_250605, 0089_MW216_250605, 0089_MW217_250605, 0089_MW220_250605, 0089_MW224_250605, 0089_MW225_250605, 0089_MW226_250605, 0089_MW227_250605, 0089_MW228_250605, 0089_MW282_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**20-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC104_250605, 0089_QC302_250605, 0089_QC402_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**24-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW128_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**20-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_250606, 0089_MW120_250606, 0089_MW121_250606, 0089_MW123_250606, 0089_MW124_250606, 0089_MW125_250606, 0089_MW126_250606, 0089_MW127_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**23-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_250606, 0089_MW500_250606, 0089_QC105_250606, 0089_QC303_250606, 0089_QC403_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**24-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250609, 0089_SW383_250609, 0089_SW384_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**20-Jun-2025**	06-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
HDPE (no PTFE) (EP231X) 0089_MW158_250606, 0089_MW161_250609, 0089_MW166_250609, 0089_MW171_250609, 0089_SW382_250609, 0089_PW381_250609, 0089_PW401_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**23-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW350_250609, 0089_PW351_250609, 0089_PW352_250609, 0089_PW380_250609, 0089_QC304_250609, 0089_QC404_250609, 0089_QC106_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW173_250610, 0089_MW193_250610, 0089_MW199_250610, 0089_MW200_250610, 0089_MW202_250610, 0089_MW203_250610, 0089_MW195D_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**23-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW468_250610, 0089_QC405_250610, 0089_QC305_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**24-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW139_250611, 0089_MW141_250611, 0089_MW142_250611, 0089_MW147_250611, 0089_MW149_250611, 0089_SW150_250611, 0089_SW152_250611, 0089_SW154_250611, 0089_SW156_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**20-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250611, 0089_PW330_250611, 0089_PW331_250611, 0089_PW356_250611, 0089_PW357_250611, 0089_PW358_250611, 0089_QC107_250611, 0089_QC108_250611, 0089_QC306_250611, 0089_QC406_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW233_250612, 0089_MW236_250612, 0089_MW238_250612, 0089_MW240_250612, 0089_MW243_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**20-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW374_250612, 0089_PW375_250612, 0089_PW378_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**23-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW245_250612, 0089_SW317_250612, 0089_SW318_250612, 0089_SW319_250612, 0089_QC111_250612, 0089_QC307_250612, 0089_QC407_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0089_SW130_250613, 0089_SW132_250613, 0089_SW134_250613, 0089_SW370_250613, 0089_SW371_250613, 0089_SW373_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**20-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW341_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**23-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250613, 0089_SW372_250613, 0089_PW335_250613, 0089_PW340_250613, 0089_PW362_25613, 0089_PW363_250613, 0089_PW364_250613, 0089_PW304_250613, 0089_PW345_250613, 0089_PW368_250613, 0089_PW369_250613, 0089_QC112_250613, 0089_QC308_250613, 0089_QC408_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250616, 0089_SW310_250616, 0089_SW311_250616, 0089_SW406_250616, 0089_SW408_250616, 0089_SW412_250616, 0089_SW414_250616, 0089_SW416_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**20-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW306_250616, 0089_PW405_250616, 0089_PW407_250616, 0089_PW409_250616, 0089_PW411_250616, 0089_PW413_250616, 0089_PW415_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**23-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW410_250616, 0089_PW307_250616, 0089_PW308_250616, 0089_PW315_250616, 0089_PW316_250616, 0089_QC116_250616, 0089_QC115_250616, 0089_QC117_250616, 0089_QC118_250616, 0089_QC309_250616, 0089_QC409_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW346_250613	**17-Jun-2025**	**20-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	14-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_MW268_250603, 0089_MW269_250603, 0089_MW496_250604, 0089_MW255_250603, 0089_MW257_250603, 0089_MW258_250603, 0089_MW553_250603, 0089_MW010_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**20-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC101_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**23-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW256_250603, 0089_MW259_250603, 0089_QC300_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**24-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250604, 0089_MW289_250604, 0089_MW242_250604, 0089_MW249_250604, 0089_MW516_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**20-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC400_250603, 0089_QC401_250604, 0089_QC100_250603, 0089_QC103_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**23-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC301_250604, 0089_QC102_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**24-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250605, 0089_MW215_250605, 0089_MW216_250605, 0089_MW217_250605, 0089_MW220_250605, 0089_MW224_250605, 0089_MW225_250605, 0089_MW226_250605, 0089_MW227_250605, 0089_MW228_250605, 0089_MW282_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**20-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC104_250605, 0089_QC302_250605, 0089_QC402_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**24-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW128_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**20-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_250606, 0089_MW120_250606, 0089_MW121_250606, 0089_MW123_250606, 0089_MW124_250606, 0089_MW125_250606, 0089_MW126_250606, 0089_MW127_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**23-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_250606, 0089_MW500_250606, 0089_QC105_250606, 0089_QC303_250606, 0089_QC403_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**24-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250609, 0089_SW383_250609, 0089_SW384_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**20-Jun-2025**	06-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
HDPE (no PTFE) (EP231X) 0089_MW158_250606, 0089_MW161_250609, 0089_MW166_250609, 0089_MW171_250609, 0089_SW382_250609, 0089_PW381_250609, 0089_PW401_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**23-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW350_250609, 0089_PW351_250609, 0089_PW352_250609, 0089_PW380_250609, 0089_QC304_250609, 0089_QC404_250609, 0089_QC106_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW173_250610, 0089_MW193_250610, 0089_MW199_250610, 0089_MW200_250610, 0089_MW202_250610, 0089_MW203_250610, 0089_MW195D_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**23-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW468_250610, 0089_QC405_250610, 0089_QC305_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**24-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW139_250611, 0089_MW141_250611, 0089_MW142_250611, 0089_MW147_250611, 0089_MW149_250611, 0089_SW150_250611, 0089_SW152_250611, 0089_SW154_250611, 0089_SW156_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**20-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250611, 0089_PW330_250611, 0089_PW331_250611, 0089_PW356_250611, 0089_PW357_250611, 0089_PW358_250611, 0089_QC107_250611, 0089_QC108_250611, 0089_QC306_250611, 0089_QC406_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW233_250612, 0089_MW236_250612, 0089_MW238_250612, 0089_MW240_250612, 0089_MW243_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**20-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW374_250612, 0089_PW375_250612, 0089_PW378_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**23-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW245_250612, 0089_SW317_250612, 0089_SW318_250612, 0089_SW319_250612, 0089_QC111_250612, 0089_QC307_250612, 0089_QC407_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0089_SW130_250613, 0089_SW132_250613, 0089_SW134_250613, 0089_SW370_250613, 0089_SW371_250613, 0089_SW373_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**20-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW341_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**23-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250613, 0089_SW372_250613, 0089_PW335_250613, 0089_PW340_250613, 0089_PW362_25613, 0089_PW363_250613, 0089_PW364_250613, 0089_PW304_250613, 0089_PW345_250613, 0089_PW368_250613, 0089_PW369_250613, 0089_QC112_250613, 0089_QC308_250613, 0089_QC408_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250616, 0089_SW310_250616, 0089_SW311_250616, 0089_SW406_250616, 0089_SW408_250616, 0089_SW412_250616, 0089_SW414_250616, 0089_SW416_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**20-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW306_250616, 0089_PW405_250616, 0089_PW407_250616, 0089_PW409_250616, 0089_PW411_250616, 0089_PW413_250616, 0089_PW415_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**23-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW410_250616, 0089_PW307_250616, 0089_PW308_250616, 0089_PW315_250616, 0089_PW316_250616, 0089_QC116_250616, 0089_QC115_250616, 0089_QC117_250616, 0089_QC118_250616, 0089_QC309_250616, 0089_QC409_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW346_250613	**17-Jun-2025**	**20-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	14-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0089_MW268_250603, 0089_MW269_250603, 0089_MW496_250604, 0089_MW255_250603, 0089_MW257_250603, 0089_MW258_250603, 0089_MW553_250603, 0089_MW010_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**20-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC101_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**23-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW256_250603, 0089_MW259_250603, 0089_QC300_250603	**03-Jun-2025**	**20-Jun-2025**	30-Nov-2025	✓	**24-Jun-2025**	30-Nov-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250604, 0089_MW289_250604, 0089_MW242_250604, 0089_MW249_250604, 0089_MW516_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**20-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC400_250603, 0089_QC401_250604, 0089_QC100_250603, 0089_QC103_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**23-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC301_250604, 0089_QC102_250604	**04-Jun-2025**	**20-Jun-2025**	01-Dec-2025	✓	**24-Jun-2025**	01-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250605, 0089_MW215_250605, 0089_MW216_250605, 0089_MW217_250605, 0089_MW220_250605, 0089_MW224_250605, 0089_MW225_250605, 0089_MW226_250605, 0089_MW227_250605, 0089_MW228_250605, 0089_MW282_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**20-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_QC104_250605, 0089_QC302_250605, 0089_QC402_250605	**05-Jun-2025**	**20-Jun-2025**	02-Dec-2025	✓	**24-Jun-2025**	02-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW128_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**20-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW109_250606, 0089_MW120_250606, 0089_MW121_250606, 0089_MW123_250606, 0089_MW124_250606, 0089_MW125_250606, 0089_MW126_250606, 0089_MW127_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**23-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW112_250606, 0089_MW500_250606, 0089_QC105_250606, 0089_QC303_250606, 0089_QC403_250606	**06-Jun-2025**	**20-Jun-2025**	03-Dec-2025	✓	**24-Jun-2025**	03-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250609, 0089_SW383_250609, 0089_SW384_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**20-Jun-2025**	06-Dec-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
HDPE (no PTFE) (EP231X) 0089_MW158_250606, 0089_MW161_250609, 0089_MW166_250609, 0089_MW171_250609, 0089_SW382_250609, 0089_PW381_250609, 0089_PW401_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**23-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW350_250609, 0089_PW351_250609, 0089_PW352_250609, 0089_PW380_250609, 0089_QC304_250609, 0089_QC404_250609, 0089_QC106_250609	**09-Jun-2025**	**20-Jun-2025**	06-Dec-2025	✓	**24-Jun-2025**	06-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW173_250610, 0089_MW193_250610, 0089_MW199_250610, 0089_MW200_250610, 0089_MW202_250610, 0089_MW203_250610, 0089_MW195D_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**23-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW468_250610, 0089_QC405_250610, 0089_QC305_250610	**10-Jun-2025**	**20-Jun-2025**	07-Dec-2025	✓	**24-Jun-2025**	07-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW139_250611, 0089_MW141_250611, 0089_MW142_250611, 0089_MW147_250611, 0089_MW149_250611, 0089_SW150_250611, 0089_SW152_250611, 0089_SW154_250611, 0089_SW156_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**20-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW329_250611, 0089_PW330_250611, 0089_PW331_250611, 0089_PW356_250611, 0089_PW357_250611, 0089_PW358_250611, 0089_QC107_250611, 0089_QC108_250611, 0089_QC306_250611, 0089_QC406_250611	**11-Jun-2025**	**20-Jun-2025**	08-Dec-2025	✓	**24-Jun-2025**	08-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW233_250612, 0089_MW236_250612, 0089_MW238_250612, 0089_MW240_250612, 0089_MW243_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**20-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW374_250612, 0089_PW375_250612, 0089_PW378_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**23-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_MW245_250612, 0089_SW317_250612, 0089_SW318_250612, 0089_SW319_250612, 0089_QC111_250612, 0089_QC307_250612, 0089_QC407_250612	**12-Jun-2025**	**20-Jun-2025**	09-Dec-2025	✓	**24-Jun-2025**	09-Dec-2025	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0089_SW130_250613, 0089_SW132_250613, 0089_SW134_250613, 0089_SW370_250613, 0089_SW371_250613, 0089_SW373_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**20-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW341_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**23-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250613, 0089_SW372_250613, 0089_PW335_250613, 0089_PW340_250613, 0089_PW362_25613, 0089_PW363_250613, 0089_PW364_250613, 0089_PW304_250613, 0089_PW345_250613, 0089_PW368_250613, 0089_PW369_250613, 0089_QC112_250613, 0089_QC308_250613, 0089_QC408_250613	**13-Jun-2025**	**20-Jun-2025**	10-Dec-2025	✓	**24-Jun-2025**	10-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250616, 0089_SW310_250616, 0089_SW311_250616, 0089_SW406_250616, 0089_SW408_250616, 0089_SW412_250616, 0089_SW414_250616, 0089_SW416_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**20-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW306_250616, 0089_PW405_250616, 0089_PW407_250616, 0089_PW409_250616, 0089_PW411_250616, 0089_PW413_250616, 0089_PW415_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**23-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_SW410_250616, 0089_PW307_250616, 0089_PW308_250616, 0089_PW315_250616, 0089_PW316_250616, 0089_QC116_250616, 0089_QC115_250616, 0089_QC117_250616, 0089_QC118_250616, 0089_QC309_250616, 0089_QC409_250616	**16-Jun-2025**	**20-Jun-2025**	13-Dec-2025	✓	**24-Jun-2025**	13-Dec-2025	✓
HDPE (no PTFE) (EP231X) 0089_PW346_250613	**17-Jun-2025**	**20-Jun-2025**	14-Dec-2025	✓	**24-Jun-2025**	14-Dec-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	5	42	**11.90**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	42	**11.90**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	42	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	42	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	42	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	17	160	**10.63**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	9	160	**5.63**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	9	160	**5.63**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	9	160	**5.63**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. A portion of homogenised sample is extracted along with isotope dilution standards (where commercially available) in a solution of ammonium acetate in acetonitrile/methanol. Where relevant, interferences from co-extracted organics are removed using dispersive clean-up media (dSPE). A portion of extract is combined with an equal volume of reagent water and filtered for instrumental analysis.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Data quality objectives for internal standard recoveries are based on US EPA method 1633.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2509632**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 8
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 83715	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0089		
Sampler	: [redacted] [redacted]		

Dates

Date Samples Received	: 18-Jun-2025 09:00	Issue Date	: 23-Jun-2025
Client Requested Due Date	: 26-Jun-2025	Scheduled Reporting Date	: **26-Jun-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 6	Temperature	: 3.6 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 203 / 202

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2509632-062	13-Jun-2025 08:48	0089_SD335_250613	✓	✓
EP2509632-063	13-Jun-2025 11:19	0089_SD340_250613	✓	✓
EP2509632-064	13-Jun-2025 11:19	0089_SD341_250613	✓	✓
EP2509632-065	13-Jun-2025 11:20	0089_SD362_250613	✓	✓
EP2509632-066	13-Jun-2025 11:20	0089_SD363_250613	✓	✓
EP2509632-067	13-Jun-2025 11:21	0089_SD364_250613	✓	✓
EP2509632-068	11-Jun-2025 14:20	0089_SD329_250611	✓	✓
EP2509632-069	11-Jun-2025 14:21	0089_SD330_250611	✓	✓
EP2509632-070	11-Jun-2025 14:21	0089_SD331_250611	✓	✓
EP2509632-071	11-Jun-2025 14:22	0089_SD356_250611	✓	✓
EP2509632-072	11-Jun-2025 14:22	0089_SD357_250611	✓	✓
EP2509632-073	11-Jun-2025 14:23	0089_SD358_250611	✓	✓
EP2509632-074	13-Jun-2025 15:23	0089_SD304_250613	✓	✓
EP2509632-075	13-Jun-2025 13:17	0089_SD345_250613	✓	✓
EP2509632-076	13-Jun-2025 15:24	0089_SD368_250613	✓	✓
EP2509632-077	13-Jun-2025 13:16	0089_SD369_250613	✓	✓
EP2509632-078	09-Jun-2025 10:14	0089_SD350_250609	✓	✓
EP2509632-079	09-Jun-2025 12:15	0089_SD351_250609	✓	✓
EP2509632-080	09-Jun-2025 13:20	0089_SD352_250609	✓	✓
EP2509632-081	09-Jun-2025 11:53	0089_SD380_250609	✓	✓
EP2509632-082	09-Jun-2025 12:57	0089_SD381_250609	✓	✓
EP2509632-083	09-Jun-2025 11:16	0089_SD401_250609	✓	✓
EP2509632-084	16-Jun-2025 08:55	0089_SD306_250616	✓	✓
EP2509632-085	16-Jun-2025 10:58	0089_SD307_250616	✓	✓
EP2509632-086	16-Jun-2025 12:04	0089_SD308_250616	✓	✓
EP2509632-087	16-Jun-2025 09:54	0089_SD314_250616	✓	✓
EP2509632-088	16-Jun-2025 10:21	0089_SD315_250616	✓	✓
EP2509632-089	16-Jun-2025 11:40	0089_SD316_250616	✓	✓
EP2509632-090	16-Jun-2025 16:38	0089_SD405_250616	✓	✓
EP2509632-091	16-Jun-2025 16:18	0089_SD407_250616	✓	✓
EP2509632-092	16-Jun-2025 15:25	0089_SD409_250616	✓	✓
EP2509632-093	16-Jun-2025 14:42	0089_SD411_250616	✓	✓
EP2509632-094	16-Jun-2025 14:20	0089_SD413_250616	✓	✓
EP2509632-095	16-Jun-2025 14:14	0089_SD415_250616	✓	✓
EP2509632-096	12-Jun-2025 16:25	0089_SD374_250612	✓	✓

			SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2509632-097	12-Jun-2025 16:24	0089_SD375_250612	✓	✓
EP2509632-098	12-Jun-2025 16:24	0089_SD378_250612	✓	✓
EP2509632-184	11-Jun-2025 14:26	0089_QC109_250611	✓	✓
EP2509632-187	12-Jun-2025 16:31	0089_QC110_250612	✓	✓
EP2509632-191	13-Jun-2025 08:50	0089_QC113_250613	✓	✓
EP2509632-193	13-Jun-2025 13:18	0089_QC114_250613	✓	✓
EP2509632-203	17-Jun-2025 17:10	0089_SD346_250613	✓	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2509632-001	06-Jun-2025 11:56	0089_MW109_250606	✓
EP2509632-002	06-Jun-2025 09:37	0089_MW112_250606	✓
EP2509632-003	06-Jun-2025 11:55	0089_MW500_250606	✓
EP2509632-004	06-Jun-2025 09:35	0089_MW120_250606	✓
EP2509632-005	06-Jun-2025 10:11	0089_MW121_250606	✓
EP2509632-006	06-Jun-2025 11:17	0089_MW123_250606	✓
EP2509632-007	06-Jun-2025 13:16	0089_MW124_250606	✓
EP2509632-008	06-Jun-2025 14:02	0089_MW125_250606	✓
EP2509632-009	06-Jun-2025 14:20	0089_MW126_250606	✓
EP2509632-010	06-Jun-2025 14:54	0089_MW127_250606	✓
EP2509632-011	06-Jun-2025 08:26	0089_MW128_250606	✓
EP2509632-012	09-Jun-2025 16:33	0089_MW158_250606	✓
EP2509632-013	09-Jun-2025 16:03	0089_MW161_250609	✓
EP2509632-014	09-Jun-2025 15:46	0089_MW166_250609	✓
EP2509632-015	09-Jun-2025 15:25	0089_MW171_250609	✓
EP2509632-016	10-Jun-2025 08:58	0089_MW173_250610	✓
EP2509632-017	10-Jun-2025 09:40	0089_MW193_250610	✓
EP2509632-018	10-Jun-2025 14:40	0089_MW199_250610	✓
EP2509632-019	10-Jun-2025 11:55	0089_MW200_250610	✓
EP2509632-020	10-Jun-2025 14:10	0089_MW202_250610	✓
EP2509632-021	10-Jun-2025 14:17	0089_MW203_250610	✓
EP2509632-022	10-Jun-2025 10:31	0089_MW195D_250610	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2509632-023	10-Jun-2025 10:14	0089_MW195S_250610	✓
EP2509632-024	10-Jun-2025 12:22	0089_MW468_250610	✓
EP2509632-025	04-Jun-2025 16:24	0089_MW288_250604	✓
EP2509632-026	04-Jun-2025 15:32	0089_MW289_250604	✓
EP2509632-027	05-Jun-2025 12:48	0089_MW214_250605	✓
EP2509632-028	05-Jun-2025 13:09	0089_MW215_250605	✓
EP2509632-029	05-Jun-2025 12:09	0089_MW216_250605	✓
EP2509632-030	05-Jun-2025 11:39	0089_MW217_250605	✓
EP2509632-031	05-Jun-2025 08:34	0089_MW220_250605	✓
EP2509632-032	05-Jun-2025 08:42	0089_MW224_250605	✓
EP2509632-033	05-Jun-2025 14:01	0089_MW225_250605	✓
EP2509632-034	05-Jun-2025 14:55	0089_MW226_250605	✓
EP2509632-035	05-Jun-2025 16:02	0089_MW227_250605	✓
EP2509632-036	05-Jun-2025 15:46	0089_MW228_250605	✓
EP2509632-037	05-Jun-2025 08:44	0089_MW282_250605	✓
EP2509632-038	03-Jun-2025 16:36	0089_MW268_250603	✓
EP2509632-039	03-Jun-2025 16:27	0089_MW269_250603	✓
EP2509632-040	12-Jun-2025 14:24	0089_MW233_250612	✓
EP2509632-041	12-Jun-2025 14:11	0089_MW236_250612	✓
EP2509632-042	12-Jun-2025 14:09	0089_MW238_250612	✓
EP2509632-043	12-Jun-2025 14:07	0089_MW240_250612	✓
EP2509632-044	04-Jun-2025 16:20	0089_MW242_250604	✓
EP2509632-045	12-Jun-2025 14:10	0089_MW243_250612	✓
EP2509632-046	12-Jun-2025 14:10	0089_MW245_250612	✓
EP2509632-047	04-Jun-2025 16:25	0089_MW249_250604	✓
EP2509632-048	03-Jun-2025 16:29	0089_MW496_250604	✓
EP2509632-049	04-Jun-2025 16:28	0089_MW516_250604	✓
EP2509632-050	03-Jun-2025 16:31	0089_MW255_250603	✓
EP2509632-051	03-Jun-2025 16:38	0089_MW256_250603	✓
EP2509632-052	03-Jun-2025 16:39	0089_MW257_250603	✓
EP2509632-053	03-Jun-2025 16:37	0089_MW258_250603	✓
EP2509632-054	03-Jun-2025 16:35	0089_MW259_250603	✓
EP2509632-055	03-Jun-2025 16:33	0089_MW553_250603	✓
EP2509632-056	03-Jun-2025 16:34	0089_MW010_250603	✓
EP2509632-057	11-Jun-2025 08:49	0089_MW139_250611	✓
EP2509632-058	11-Jun-2025 09:47	0089_MW141_250611	✓
EP2509632-059	11-Jun-2025 10:03	0089_MW142_250611	✓
EP2509632-060	11-Jun-2025 09:20	0089_MW147_250611	✓
EP2509632-061	11-Jun-2025 09:50	0089_MW149_250611	✓
EP2509632-099	13-Jun-2025 08:51	0089_SW130_250613	✓
EP2509632-100	13-Jun-2025 11:22	0089_SW132_250613	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2509632-101	13-Jun-2025 11:22	0089_SW134_250613	✓
EP2509632-102	11-Jun-2025 14:29	0089_SW150_250611	✓
EP2509632-103	11-Jun-2025 14:28	0089_SW152_250611	✓
EP2509632-104	11-Jun-2025 14:28	0089_SW154_250611	✓
EP2509632-105	11-Jun-2025 14:29	0089_SW156_250611	✓
EP2509632-106	13-Jun-2025 15:25	0089_SW305_250613	✓
EP2509632-107	13-Jun-2025 13:13	0089_SW370_250613	✓
EP2509632-108	13-Jun-2025 15:26	0089_SW371_250613	✓
EP2509632-109	13-Jun-2025 15:27	0089_SW372_250613	✓
EP2509632-110	13-Jun-2025 15:26	0089_SW373_250613	✓
EP2509632-111	09-Jun-2025 10:13	0089_SW353_250609	✓
EP2509632-112	09-Jun-2025 13:19	0089_SW382_250609	✓
EP2509632-113	09-Jun-2025 11:35	0089_SW383_250609	✓
EP2509632-114	09-Jun-2025 11:09	0089_SW384_250609	✓
EP2509632-115	16-Jun-2025 08:55	0089_SW309_250616	✓
EP2509632-116	16-Jun-2025 10:22	0089_SW310_250616	✓
EP2509632-117	16-Jun-2025 12:05	0089_SW311_250616	✓
EP2509632-118	16-Jun-2025 16:58	0089_SW406_250616	✓
EP2509632-119	16-Jun-2025 16:17	0089_SW408_250616	✓
EP2509632-120	16-Jun-2025 15:26	0089_SW410_250616	✓
EP2509632-121	16-Jun-2025 14:42	0089_SW412_250616	✓
EP2509632-122	16-Jun-2025 14:20	0089_SW414_250616	✓
EP2509632-123	16-Jun-2025 14:15	0089_SW416_250616	✓
EP2509632-124	12-Jun-2025 16:26	0089_SW317_250612	✓
EP2509632-125	12-Jun-2025 16:26	0089_SW318_250612	✓
EP2509632-126	12-Jun-2025 16:27	0089_SW319_250612	✓
EP2509632-127	13-Jun-2025 08:54	0089_PW335_250613	✓
EP2509632-128	13-Jun-2025 11:25	0089_PW340_250613	✓
EP2509632-129	13-Jun-2025 11:26	0089_PW341_250613	✓
EP2509632-130	13-Jun-2025 11:35	0089_PW362_25613	✓
EP2509632-131	13-Jun-2025 11:36	0089_PW363_250613	✓
EP2509632-132	13-Jun-2025 11:38	0089_PW364_250613	✓
EP2509632-133	11-Jun-2025 14:36	0089_PW329_250611	✓
EP2509632-134	11-Jun-2025 14:36	0089_PW330_250611	✓
EP2509632-135	11-Jun-2025 14:35	0089_PW331_250611	✓
EP2509632-136	11-Jun-2025 14:34	0089_PW356_250611	✓
EP2509632-137	11-Jun-2025 14:33	0089_PW357_250611	✓
EP2509632-138	11-Jun-2025 14:32	0089_PW358_250611	✓
EP2509632-139	13-Jun-2025 15:28	0089_PW304_250613	✓
EP2509632-140	13-Jun-2025 13:15	0089_PW345_250613	✓
EP2509632-141	13-Jun-2025 15:28	0089_PW368_250613	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2509632-142	13-Jun-2025 13:14	0089_PW369_250613	✓
EP2509632-143	09-Jun-2025 10:18	0089_PW350_250609	✓
EP2509632-144	09-Jun-2025 12:14	0089_PW351_250609	✓
EP2509632-145	09-Jun-2025 13:18	0089_PW352_250609	✓
EP2509632-146	09-Jun-2025 11:53	0089_PW380_250609	✓
EP2509632-147	09-Jun-2025 12:58	0089_PW381_250609	✓
EP2509632-148	09-Jun-2025 11:14	0089_PW401_250609	✓
EP2509632-149	16-Jun-2025 08:56	0089_PW306_250616	✓
EP2509632-150	16-Jun-2025 10:58	0089_PW307_250616	✓
EP2509632-151	16-Jun-2025 12:08	0089_PW308_250616	✓
EP2509632-152	16-Jun-2025 17:05	0089_PW315_250616	✓
EP2509632-153	16-Jun-2025 11:37	0089_PW316_250616	✓
EP2509632-154	16-Jun-2025 16:39	0089_PW405_250616	✓
EP2509632-155	16-Jun-2025 16:19	0089_PW407_250616	✓
EP2509632-156	16-Jun-2025 15:32	0089_PW409_250616	✓
EP2509632-157	16-Jun-2025 14:43	0089_PW411_250616	✓
EP2509632-158	16-Jun-2025 14:19	0089_PW413_250616	✓
EP2509632-159	16-Jun-2025 14:19	0089_PW415_250616	✓
EP2509632-160	12-Jun-2025 16:28	0089_PW374_250612	✓
EP2509632-161	12-Jun-2025 16:29	0089_PW375_250612	✓
EP2509632-162	12-Jun-2025 16:29	0089_PW378_250612	✓
EP2509632-163	03-Jun-2025 16:10	0089_QC300_250603	✓
EP2509632-164	04-Jun-2025 16:19	0089_QC301_250604	✓
EP2509632-165	04-Jun-2025 16:16	0089_QC400_250603	✓
EP2509632-166	04-Jun-2025 16:17	0089_QC401_250604	✓
EP2509632-167	04-Jun-2025 16:41	0089_QC100_250603	✓
EP2509632-168	03-Jun-2025 16:43	0089_QC101_250603	✓
EP2509632-169	04-Jun-2025 16:45	0089_QC102_250604	✓
EP2509632-170	04-Jun-2025 16:48	0089_QC103_250604	✓
EP2509632-171	05-Jun-2025 10:21	0089_QC104_250605	✓
EP2509632-172	05-Jun-2025 16:59	0089_QC302_250605	✓
EP2509632-173	05-Jun-2025 17:00	0089_QC402_250605	✓
EP2509632-174	06-Jun-2025 09:36	0089_QC105_250606	✓
EP2509632-175	06-Jun-2025 15:21	0089_QC303_250606	✓
EP2509632-176	06-Jun-2025 15:22	0089_QC403_250606	✓
EP2509632-177	09-Jun-2025 14:41	0089_QC304_250609	✓
EP2509632-178	09-Jun-2025 14:43	0089_QC404_250609	✓
EP2509632-179	09-Jun-2025 15:27	0089_QC106_250609	✓
EP2509632-180	10-Jun-2025 15:02	0089_QC405_250610	✓
EP2509632-181	10-Jun-2025 15:03	0089_QC305_250610	✓
EP2509632-182	11-Jun-2025 08:50	0089_QC107_250611	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2509632-183	11-Jun-2025 14:24	0089_QC108_250611	✓
EP2509632-185	11-Jun-2025 15:07	0089_QC306_250611	✓
EP2509632-186	11-Jun-2025 15:09	0089_QC406_250611	✓
EP2509632-188	12-Jun-2025 16:32	0089_QC111_250612	✓
EP2509632-189	12-Jun-2025 16:34	0089_QC307_250612	✓
EP2509632-190	12-Jun-2025 16:34	0089_QC407_250612	✓
EP2509632-192	13-Jun-2025 08:52	0089_QC112_250613	✓
EP2509632-194	13-Jun-2025 15:35	0089_QC308_250613	✓
EP2509632-195	13-Jun-2025 15:36	0089_QC408_250613	✓
EP2509632-196	16-Jun-2025 10:25	0089_QC116_250616	✓
EP2509632-197	16-Jun-2025 10:32	0089_QC115_250616	✓
EP2509632-198	16-Jun-2025 14:22	0089_QC117_250616	✓
EP2509632-199	16-Jun-2025 16:40	0089_QC118_250616	✓
EP2509632-200	16-Jun-2025 17:08	0089_QC309_250616	✓
EP2509632-201	16-Jun-2025 17:09	0089_QC409_250616	✓
EP2509632-202	17-Jun-2025 16:56	0089_PW346_250613	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	GHD.LabReports@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	GHD.LabReports@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	GHD.LabReports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	GHD.LabReports@ghd.com
- Chain of Custody (CoC) (COC)	Email	GHD.LabReports@ghd.com
- EDI Format - ESDAT (ESDAT)	Email	GHD.LabReports@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	GHD.LabReports@ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
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- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
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- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **- ALL GHD lab reports**

Report **1233380-S**
Project name WA_0089_PFASOMP_25
Received Date Jun 17, 2025

Client Sample ID			**0089_QC209_250611**	**0089_QC210_250612**	**0089_QC213_250613**	**0089_QC214_250613**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-Jn0045156**	**L25-Jn0045157**	**L25-Jn0045160**	**L25-Jn0045161**
Date Sampled			**Jun 11, 2025**	**Jun 12, 2025**	**Jun 13, 2025**	**Jun 13, 2025**
Test/Reference	LOR	Unit				
% Moisture	1	%	17	18	15	25
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	69	72	78	68
13C5-PFPeA (surr.)	1	%	76	80	85	75
13C5-PFHxA (surr.)	1	%	75	79	90	76
13C4-PFHpA (surr.)	1	%	76	77	87	73
13C8-PFOA (surr.)	1	%	76	77	87	73
13C5-PFNA (surr.)	1	%	81	79	85	75
13C6-PFDA (surr.)	1	%	75	84	89	74
13C2-PFUnDA (surr.)	1	%	80	84	87	75
13C2-PFDoDA (surr.)	1	%	77	86	86	76
13C2-PFTeDA (surr.)	1	%	94	99	109	88
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	80	84	90	75

Client Sample ID			0089_QC209_250611	0089_QC210_250612	0089_QC213_250613	0089_QC214_250613
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-Jn0045156**	**L25-Jn0045157**	**L25-Jn0045160**	**L25-Jn0045161**
Date Sampled			**Jun 11, 2025**	**Jun 12, 2025**	**Jun 13, 2025**	**Jun 13, 2025**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	J+319	J+331	J+342	J+302
D5-N-EtFOSA (surr.)	1	%	J+449	J+486	J+499	J+427
D7-N-MeFOSE (surr.)	1	%	81	86	89	77
D9-N-EtFOSE (surr.)	1	%	87	93	99	81
D5-N-EtFOSAA (surr.)	1	%	86	90	89	76
D3-N-MeFOSAA (surr.)	1	%	76	80	84	73
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	78	79	92	77
13C2-6:2 FTSA (surr.)	1	%	86	80	93	77
13C2-8:2 FTSA (surr.)	1	%	82	90	93	83
13C2-10:2 FTSA (surr.)	1	%	90	100	108	80
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS)*[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)*[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	74	76	83	73
18O2-PFHxS (surr.)	1	%	77	82	82	73
13C8-PFOS (surr.)	1	%	77	82	85	72
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
% Moisture	Welshpool	Jun 17, 2025	14 Days
- Method: ARL135 Moisture in Solids			
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
PFASs Summations	Welshpool	Jun 17, 2025	
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898
Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521
Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954
Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC200_250603	Jun 03, 2025		Water	L25-Jn0045148		X
2	0089_QC201_250603	Jun 03, 2025		Water	L25-Jn0045149		X
3	0089_QC202_250604	Jun 04, 2025		Water	L25-Jn0045150		X
4	0089_QC203_250604	Jun 04, 2025		Water	L25-Jn0045151		X
5	0089_QC205_250606	Jun 06, 2025		Water	L25-Jn0045152		X
6	0089_QC206_250609	Jun 09, 2025		Water	L25-Jn0045153		X
7	0089_QC207_250611	Jun 11, 2025		Water	L25-Jn0045154		X
8	0089_QC208_250611	Jun 11, 2025		Water	L25-Jn0045155		X
9	0089_QC209_250611	Jun 11, 2025		Soil	L25-Jn0045156	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_250612	Jun 12, 2025		Soil	L25-Jn0045157	X	X
11	0089_QC211_250612	Jun 12, 2025		Water	L25-Jn0045158		X
12	0089_QC212_250613	Jun 13, 2025		Water	L25-Jn0045159		X
13	0089_QC213_250613	Jun 13, 2025		Soil	L25-Jn0045160	X	X
14	0089_QC214_250613	Jun 13, 2025		Soil	L25-Jn0045161	X	X
15	0089_QC215_250616	Jun 16, 2025		Water	L25-Jn0045162		X
16	0089_QC216_250616	Jun 16, 2025		Water	L25-Jn0045163		X
17	0089_QC217_250616	Jun 16, 2025		Water	L25-Jn0045164		X
18	0089_QC218_250616	Jun 16, 2025		Water	L25-Jn0045165		X
19	0089_QC204_250605	Jun 16, 2025		Water	L25-Jn0045166		X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
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Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
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Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554	X	X
External Laboratory		
Test Counts	4	19

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Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ppm: parts per million
µg/L: micrograms per litre
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit
Colour: Pt-Co Units (CU)

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	94			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	84			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	104			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	94			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	95			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	102			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	100			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	105			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	98			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	98			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	97			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	92			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	97			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	98			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	96			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	98			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	102			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	104			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	96			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	102			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	99			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	104			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	99			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	103			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	87			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	93			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	95			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	93			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	93			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	93			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	L25-Jn0054417	NCP	%	91			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Jn0054417	NCP	%	84			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Jn0054417	NCP	%	99			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Jn0054417	NCP	%	93			50-150	Pass	
Perfluorooctanoic acid (PFOA)	L25-Jn0054417	NCP	%	96			50-150	Pass	
Perfluorononanoic acid (PFNA)	L25-Jn0054417	NCP	%	94			50-150	Pass	
Perfluorodecanoic acid (PFDA)	L25-Jn0054417	NCP	%	102			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Jn0054417	NCP	%	98			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Jn0054417	NCP	%	96			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Jn0054417	NCP	%	87			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Jn0054417	NCP	%	99			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	L25-Jn0054417	NCP	%	95			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Jn0054417	NCP	%	104			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Jn0054417	NCP	%	98			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Jn0054417	NCP	%	94			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Jn0054417	NCP	%	94			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Jn0054417	NCP	%	95			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Jn0054417	NCP	%	102			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Jn0054417	NCP	%	97			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Jn0054417	NCP	%	100			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Jn0054417	NCP	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Jn0054417	NCP	%	91			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	L25-Jn0054417	NCP	%	97			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Jn0054417	NCP	%	91			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Jn0054417	NCP	%	86			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Jn0054417	NCP	%	92			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Jn0054417	NCP	%	94			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Jn0054417	NCP	%	101			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Jn0054417	NCP	%	90			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Jn0054417	NCP	%	92			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-Jn0045156	CP	%	17	17	3.0	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Jn0045160	CP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Jn0045160	CP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Jn0045160	CP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Jn0045160	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
J+	If the percent recoveries were greater than the upper control limit, qualify detects for the analyte in associated samples as estimated with a positive bias J+.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-Sample Properties
[redacted] Senior Analyst-PFAS

[redacted]
[redacted]
General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
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Attention: **- ALL GHD lab reports**

Report **1233380-W**
Project name WA_0089_PFASOMP_25
Received Date Jun 17, 2025

Client Sample ID			**0089_QC200_250603**	**0089_QC201_250603**	**0089_QC202_250604**	**0089_QC203_250604**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Jn0045148**	**L25-Jn0045149**	**L25-Jn0045150**	**L25-Jn0045151**
Date Sampled			**Jun 03, 2025**	**Jun 03, 2025**	**Jun 04, 2025**	**Jun 04, 2025**
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	0.04	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	0.12	0.04	0.02
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	[N09]0.02	[N09]0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	72	64	74	76
13C5-PFPeA (surr.)	1	%	87	87	86	99
13C5-PFHxA (surr.)	1	%	90	90	89	102
13C4-PFHpA (surr.)	1	%	91	91	85	101
13C8-PFOA (surr.)	1	%	82	92	85	99
13C5-PFNA (surr.)	1	%	89	92	91	105
13C6-PFDA (surr.)	1	%	82	88	85	103
13C2-PFUnDA (surr.)	1	%	78	81	83	95
13C2-PFDoDA (surr.)	1	%	73	78	75	88
13C2-PFTeDA (surr.)	1	%	[J-]45	57	70	[J-]50
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	80	86	85	100
D3-N-MeFOSA (surr.)	1	%	95	130	[J+]150	[J+]178
D5-N-EtFOSA (surr.)	1	%	94	133	[J+]161	[J+]178

Client Sample ID			0089_QC200_250603	0089_QC201_250603	0089_QC202_250604	0089_QC203_250604
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Jn0045148	L25-Jn0045149	L25-Jn0045150	L25-Jn0045151
Date Sampled			Jun 03, 2025	Jun 03, 2025	Jun 04, 2025	Jun 04, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D7-N-MeFOSE (surr.)	1	%	J-47	55	57	54
D9-N-EtFOSE (surr.)	1	%	J-37	J-46	J-50	J-42
D5-N-EtFOSAA (surr.)	1	%	79	82	80	92
D3-N-MeFOSAA (surr.)	1	%	70	78	80	89
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)N11	0.05	ug/L	< 0.05	< 0.05	1.1	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	94	90	89	97
13C2-6:2 FTSA (surr.)	1	%	85	90	81	106
13C2-8:2 FTSA (surr.)	1	%	83	94	91	112
13C2-10:2 FTSA (surr.)	1	%	68	82	80	104
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)N11	0.01	ug/L	< 0.01	0.07	0.02	0.01
Perfluorononanesulfonic acid (PFNS)*N15	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.02
Perfluoropropanesulfonic acid (PFPrS)*N15	0.01	ug/L	< 0.01	0.02	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)N15	0.01	ug/L	< 0.01	N090.07	N090.02	0.02
Perfluorohexanesulfonic acid (PFHxS)N11	0.01	ug/L	N090.07	N090.72	N090.19	0.32
Perfluoroheptanesulfonic acid (PFHpS)N15	0.01	ug/L	< 0.01	N090.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)N11	0.01	ug/L	N090.01	N090.51	N090.77	0.39
Perfluorodecanesulfonic acid (PFDS)N15	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	99	94	90	108
18O2-PFHxS (surr.)	1	%	91	90	90	106
13C8-PFOS (surr.)	1	%	85	87	87	103
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.08	1.23	0.96	0.71
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	1.58	2.15	0.78
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.01	0.53	0.78	0.39
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.08	1.25	0.97	0.71
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.08	1.48	2.13	0.74

Client Sample ID			0089_QC205_250606	0089_QC206_250609	0089_QC207_250611	0089_QC208_250611
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Jn0045152	L25-Jn0045153	L25-Jn0045154	L25-Jn0045155
Date Sampled			Jun 06, 2025	Jun 09, 2025	Jun 11, 2025	Jun 11, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)N11	0.05	ug/L	< 0.05	1.0	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)N11	0.01	ug/L	0.01	0.83	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)N11	0.01	ug/L	0.10	3.0	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)N11	0.05	ug/L	< 0.05	0.31	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)N11	0.01	ug/L	0.13	0.59	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)N11	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0089_QC205_250606	0089_QC206_250609	0089_QC207_250611	0089_QC208_250611
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Jn0045152	L25-Jn0045153	L25-Jn0045154	L25-Jn0045155
Date Sampled			Jun 06, 2025	Jun 09, 2025	Jun 11, 2025	Jun 11, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	71	67	56	59
13C5-PFPeA (surr.)	1	%	87	83	82	89
13C5-PFHxA (surr.)	1	%	92	93	82	94
13C4-PFHpA (surr.)	1	%	93	87	83	89
13C8-PFOA (surr.)	1	%	89	81	81	85
13C5-PFNA (surr.)	1	%	99	98	85	96
13C6-PFDA (surr.)	1	%	88	89	85	84
13C2-PFUnDA (surr.)	1	%	90	90	77	82
13C2-PFDoDA (surr.)	1	%	84	84	71	75
13C2-PFTeDA (surr.)	1	%	76	J-48	J-47	J-41
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	95	91	83	91
D3-N-MeFOSA (surr.)	1	%	J+203	J+172	J+159	131
D5-N-EtFOSA (surr.)	1	%	J+227	J+187	J+163	129
D7-N-MeFOSE (surr.)	1	%	57	55	J-46	J-44
D9-N-EtFOSE (surr.)	1	%	J-46	J-45	J-35	34
D5-N-EtFOSAA (surr.)	1	%	90	87	78	78
D3-N-MeFOSAA (surr.)	1	%	87	87	76	77
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	87	83	77	86
13C2-6:2 FTSA (surr.)	1	%	92	98	83	90
13C2-8:2 FTSA (surr.)	1	%	99	88	80	88
13C2-10:2 FTSA (surr.)	1	%	95	94	81	80

Client Sample ID			0089_QC205_250606	0089_QC206_250609	0089_QC207_250611	0089_QC208_250611
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Jn0045152	L25-Jn0045153	L25-Jn0045154	L25-Jn0045155
Date Sampled			Jun 06, 2025	Jun 09, 2025	Jun 11, 2025	Jun 11, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	0.03	2.5	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	1.8	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	0.05	1.5	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	1.5	9.2	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	0.53	1.1	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	4.3	3.5	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	97	84	84	95
18O2-PFHxS (surr.)	1	%	99	97	84	96
13C8-PFOS (surr.)	1	%	92	96	81	91
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	5.8	12.7	< 0.01	< 0.01
Sum of PFASs (n=30)*	0.1	ug/L	6.65	25.33	< 0.1	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	4.43	4.09	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	5.93	13.29	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	6.07	20.93	< 0.05	< 0.05

Client Sample ID			0089_QC211_250612	0089_QC212_250613	0089_QC215_250616	0089_QC216_250616
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Jn0045158	L25-Jn0045159	L25-Jn0045162	L25-Jn0045163
Date Sampled			Jun 12, 2025	Jun 13, 2025	Jun 16, 2025	Jun 16, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	[J-]43	50	60	53
13C5-PFPeA (surr.)	1	%	64	78	88	77
13C5-PFHxA (surr.)	1	%	66	79	88	80
13C4-PFHpA (surr.)	1	%	64	76	86	77
13C8-PFOA (surr.)	1	%	63	69	83	74
13C5-PFNA (surr.)	1	%	61	76	85	81
13C6-PFDA (surr.)	1	%	62	69	81	72
13C2-PFUnDA (surr.)	1	%	57	59	72	62
13C2-PFDoDA (surr.)	1	%	[J-]49	50	58	57
13C2-PFTeDA (surr.)	1	%	[J-]35	[J-]29	[J-]41	[J-]33

Client Sample ID			0089_QC211_250612	0089_QC212_250613	0089_QC215_250616	0089_QC216_250616
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Jn0045158	L25-Jn0045159	L25-Jn0045162	L25-Jn0045163
Date Sampled			Jun 12, 2025	Jun 13, 2025	Jun 16, 2025	Jun 16, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	64	78	89	77
D3-N-MeFOSA (surr.)	1	%	100	135	147	135
D5-N-EtFOSA (surr.)	1	%	98	125	145	136
D7-N-MeFOSE (surr.)	1	%	J-27	J-32	J-43	J-38
D9-N-EtFOSE (surr.)	1	%	J-18	23	31	29
D5-N-EtFOSAA (surr.)	1	%	J-40	J-48	64	59
D3-N-MeFOSAA (surr.)	1	%	J-39	51	63	56
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	68	74	78	65
13C2-6:2 FTSA (surr.)	1	%	64	63	76	65
13C2-8:2 FTSA (surr.)	1	%	60	64	75	64
13C2-10:2 FTSA (surr.)	1	%	J-50	J-49	61	55
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	67	84	95	83
18O2-PFHxS (surr.)	1	%	65	82	94	82
13C8-PFOS (surr.)	1	%	67	78	88	78
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			0089_QC217_250616	0089_QC218_250616	0089_QC204_250605
Sample Matrix			Water	Water	Water
Eurofins Sample No.			L25-Jn0045164	L25-Jn0045165	L25-Jn0045166
Date Sampled			Jun 16, 2025	Jun 16, 2025	Jun 16, 2025
Test/Reference	LOR	Unit			
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	1.1
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	1.9
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	12
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	[N09]3.0
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]7.9
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
13C4-PFBA (surr.)	1	%	54	55	97
13C5-PFPeA (surr.)	1	%	81	83	104
13C5-PFHxA (surr.)	1	%	85	87	97
13C4-PFHpA (surr.)	1	%	82	85	104
13C8-PFOA (surr.)	1	%	79	86	98
13C5-PFNA (surr.)	1	%	86	87	117
13C6-PFDA (surr.)	1	%	79	84	98
13C2-PFUnDA (surr.)	1	%	72	76	111
13C2-PFDoDA (surr.)	1	%	66	69	110
13C2-PFTeDA (surr.)	1	%	[J-]40	[J-]48	102
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
13C8-FOSA (surr.)	1	%	82	82	118
D3-N-MeFOSA (surr.)	1	%	140	116	[J+]209
D5-N-EtFOSA (surr.)	1	%	143	112	[J+]270
D7-N-MeFOSE (surr.)	1	%	[J-]46	[J-]44	97
D9-N-EtFOSE (surr.)	1	%	36	[J-]35	100
D5-N-EtFOSAA (surr.)	1	%	67	78	112
D3-N-MeFOSAA (surr.)	1	%	65	73	119
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	[G01]< 0.5
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
13C2-4:2 FTSA (surr.)	1	%	69	90	118
13C2-6:2 FTSA (surr.)	1	%	71	87	124

Client Sample ID			0089_QC217_250616	0089_QC218_250616	0089_QC204_250605
Sample Matrix			**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Jn0045164**	**L25-Jn0045165**	**L25-Jn0045166**
Date Sampled			**Jun 16, 2025**	**Jun 16, 2025**	**Jun 16, 2025**
Test/Reference	LOR	Unit			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)					
13C2-8:2 FTSA (surr.)	1	%	71	85	115
13C2-10:2 FTSA (surr.)	1	%	63	69	121
Perfluoroalkyl sulfonic acids (PFSAs)					
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	3.2
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	0.74
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	[N09]6.8
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]67
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	[N09]5.2
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]63
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	[G01]< 0.1
13C3-PFBS (surr.)	1	%	87	89	112
18O2-PFHxS (surr.)	1	%	86	87	113
13C8-PFOS (surr.)	1	%	81	83	120
PFASs Summations					
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	130
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	171.84
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	70.9
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	137.9
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	159.1

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Jun 17, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
PFASs Summations	Welshpool	Jun 17, 2025	
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC200_250603	Jun 03, 2025		Water	L25-Jn0045148		X
2	0089_QC201_250603	Jun 03, 2025		Water	L25-Jn0045149		X
3	0089_QC202_250604	Jun 04, 2025		Water	L25-Jn0045150		X
4	0089_QC203_250604	Jun 04, 2025		Water	L25-Jn0045151		X
5	0089_QC205_250606	Jun 06, 2025		Water	L25-Jn0045152		X
6	0089_QC206_250609	Jun 09, 2025		Water	L25-Jn0045153		X
7	0089_QC207_250611	Jun 11, 2025		Water	L25-Jn0045154		X
8	0089_QC208_250611	Jun 11, 2025		Water	L25-Jn0045155		X
9	0089_QC209_250611	Jun 11, 2025		Soil	L25-Jn0045156	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

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Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_250612	Jun 12, 2025		Soil	L25-Jn0045157	X	X
11	0089_QC211_250612	Jun 12, 2025		Water	L25-Jn0045158		X
12	0089_QC212_250613	Jun 13, 2025		Water	L25-Jn0045159		X
13	0089_QC213_250613	Jun 13, 2025		Soil	L25-Jn0045160	X	X
14	0089_QC214_250613	Jun 13, 2025		Soil	L25-Jn0045161	X	X
15	0089_QC215_250616	Jun 16, 2025		Water	L25-Jn0045162		X
16	0089_QC216_250616	Jun 16, 2025		Water	L25-Jn0045163		X
17	0089_QC217_250616	Jun 16, 2025		Water	L25-Jn0045164		X
18	0089_QC218_250616	Jun 16, 2025		Water	L25-Jn0045165		X
19	0089_QC204_250605	Jun 16, 2025		Water	L25-Jn0045166		X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
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Geelong
19/8 Lewalan Street
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1/2 Frost Drive
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Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554	X	X
External Laboratory		
Test Counts	4	19

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ppm: parts per million
µg/L: micrograms per litre
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit
Colour: Pt-Co Units (CU)

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.05			0.05	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	102			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	90			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	112			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	100			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	106			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	106			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	106			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	110			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	112			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	114			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	108			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	102			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	102			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	108			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	106			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	102			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	98			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	104			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	108			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	120			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	114			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	98			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	104			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	86			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	92			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	98			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	104			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	108			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	104			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	82			50-150	Pass	
CRM - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	109			70-130	Pass	
Perfluoropentanoic acid (PFPeA)	%	103			70-130	Pass	
Perfluorohexanoic acid (PFHxA)	%	109			70-130	Pass	
Perfluoroheptanoic acid (PFHpA)	%	102			70-130	Pass	
Perfluorooctanoic acid (PFOA)	%	112			70-130	Pass	
Perfluorononanoic acid (PFNA)	%	111			70-130	Pass	
Perfluorodecanoic acid (PFDA)	%	117			70-130	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	117			70-130	Pass	
Perfluorododecanoic acid (PFDoDA)	%	117			70-130	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	110			70-130	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	111			70-130	Pass	
CRM - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	109			70-130	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	110			70-130	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	113			70-130	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorodecanoic acid (PFDA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Jn0045148	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Jn0045148	CP	ug/L	0.07	0.07	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Jn0045148	CP	ug/L	0.01	0.01	3.0	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Jn0045148	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Jn0045154	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Jn0045154	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
J-	If the percent recoveries were less than the lower control limit, qualify detects for the analyte in associated samples as estimated with a negative bias J-.
J+	If the percent recoveries were greater than the upper control limit, qualify detects for the analyte in associated samples as estimated with a positive bias J+.
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-PFAS
[redacted] Senior Analyst-PFAS

[redacted]

General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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#1233380

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street Perth WA 6000
PO Box 3106 Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* WA_0089_PFASOMP_25	**PO Number** (to be invoiced) 12641234
Laboratory Quote No. 240523GHDW	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com [redacted]	**Email Address (Results)** GHD.LabReports@ghd.com DCARM-WA_LABREPORTS@GHD.COM DERP.LABREPORTS@ESDAT.COM.AU [redacted]

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: PFAS Full Suite standard (30 compounds)	Analyses: PFAS Full Suite (30 compounds) - soil	Analyses: HOLD	Remarks
0089_QC200_250603		3/06/2025		W	B	N/A	2	X			
0089_QC201_250603		3/06/2025		W	B	N/A	2	X			
0089_QC202_250604		4/06/2025		W	B	N/A	2	X			
0089_QC203_250604		4/06/2025		W	B	N/A	2	X			
0089_QC205_250606		6/06/2025		W	B	N/A	2	X			
0089_QC206_250609		9/06/2025		W	B	N/A	2	X			
0089_QC207_250611		11/06/2025		W	B	N/A	2	X			
0089_QC208_250611		11/06/2025		W	B	N/A	2	X			
0089_QC209_250611		11/06/2025		S	P	N/A	1		X		
00089_QC210_250612		12/06/2025		S	P	N/A	1		X		
00089_QC211_250612		12/06/2025		W	B	N/A	2	X			
0089_QC212_250613		13/06/2025		W	B	N/A	2	X			
0089_QC213_250613		13/06/2025		S	P	N/A	1		X		
0089_QC214_250613		13/06/2025		S	P	N/A	1		X		
0089_QC215_250616		16/06/2025		W	B	N/A	2	X			

Sampled by: [redacted] Date/Time: 17/6/2025 Relinquished by: [redacted] Date/Time:

Received by: [redacted] Date/Time: 17/6/25 11:40 8.0°C Relinquished by: Date/Time:

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street, Perth WA 6000
PO Box 3106, Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)*	**PO Number** (to be invoiced)
WA_0089_PFASOMP_25	12641234
Laboratory Quote No.	**Turnaround Time**
240523GHDW	Standard
Project Manager (Invoice) & GHD accounts	**Email Address (Results)**
AccountsPayableAU@ghd.com [redacted]	GHD.LabReports@ghd.com DCARM-WA_LABREPORTS@GHD.COM DERP.LABREPORTS@ESDAT.COM.AU [redacted]

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: PFAS Full Suite standard (30 compounds)	Analyses: PFAS Full Suite (30 compounds) - soil	Analyses: HOLD	Remarks
0089_QC216_250616		16/06/2025		W	B	N/A	2	X			
0089_QC217_250617		16/06/2025		W	B	N/A	2	X			
0089_QC218_250618		16/06/2025		W	B	N/A	2	X			

Sampled by: [redacted]	Date/Time: 17/6/2025	Relinquished by: [redacted] Date/Time:
Received by: [redacted]	Date/Time: 17/6/25 11:40 8.0°C.	Relinquished by: Date/Time:

Outlook

Project: WA_0089_PFASOMP_25, Report # 1233380 - Changes to COC

From [redacted] <[redacted]ghd.com>
Date Tue 17/6/2025 2:45 PM
To SH_AU06_SampleEnviroWA <EnviroSampleWA@eurofinsanz.com>
Cc [redacted] <[redacted]ghd.com>

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Eurofins,
We have recently received your COC report # 1233380 for Project WA_0089_PFASOMP_25.

Thankyou for picking up on sample 0089_QC204_250605 missing from the COC, please proceed your selected analysis.

A couple of changes need to be made to some of the samples, please see below

0089_QC217_250617 → Please Change to → 0089_QC217_250616

0089_QC218_250618 → Please change to → 0089_QC218_250616

Please let me know if you require anymore information.

Kind regards,

[redacted]
BSc (Marine and Environmental Science)
Graduate Environmental Scientist – Contaminated Sites

GHD
Proudly employee-owned | ghd.com
Level 10 999 Hay Street Perth WA 6000 Australia
D +61 8 62084002 | **M** +61 476786556 | **E** [redacted]ghd.com

The Power of Commitment

Connect

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www.eurofins.com.au EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd ABN: 91 05 0159 898

Perth	Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
46-48 Banksia Road	6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Welshpool	Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
WA 6106	VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
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NATA# 2377	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 2370 & 2554	Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins Environment Testing Australia Pty Ltd ABN: 50 005 085 521

Eurofins Environment Testing NZ Ltd NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise	43 Detroit Drive	1277 Cameron Road
Penrose	Mount Wellington	Rolleston	Gate Pa
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name:	GHD Pty Ltd WA
Contact name:	- ALL GHD lab reports
Project name:	WA_0089_PFASOMP_25
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Jun 17, 2025 11:40 AM
Eurofins reference	1233380

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Received additional sample 0089_QC204_250605 not listed on CoC; sample has been logged for testing

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

[redacted] **on phone : or by email:** [redacted]**eurofinsanz.com**

Results will be delivered electronically via email to - ALL GHD lab reports - ghd.labreports@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd WA email address.

Global Leader - Results you can trust

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898
Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521
Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254
Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403
Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217
Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466
Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780
Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954
Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327
Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308
Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290
Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC200_250603	Jun 03, 2025		Water	L25-Jn0045148		X
2	0089_QC201_250603	Jun 03, 2025		Water	L25-Jn0045149		X
3	0089_QC202_250604	Jun 04, 2025		Water	L25-Jn0045150		X
4	0089_QC203_250604	Jun 04, 2025		Water	L25-Jn0045151		X
5	0089_QC205_250606	Jun 06, 2025		Water	L25-Jn0045152		X
6	0089_QC206_250609	Jun 09, 2025		Water	L25-Jn0045153		X
7	0089_QC207_250611	Jun 11, 2025		Water	L25-Jn0045154		X
8	0089_QC208_250611	Jun 11, 2025		Water	L25-Jn0045155		X
9	0089_QC209_250611	Jun 11, 2025		Soil	L25-Jn0045156	X	X

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

Auckland (Focus)
Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_250612	Jun 12, 2025		Soil	L25-Jn0045157	X	X
11	0089_QC211_250612	Jun 12, 2025		Water	L25-Jn0045158		X
12	0089_QC212_250613	Jun 13, 2025		Water	L25-Jn0045159		X
13	0089_QC213_250613	Jun 13, 2025		Soil	L25-Jn0045160	X	X
14	0089_QC214_250613	Jun 13, 2025		Soil	L25-Jn0045161	X	X
15	0089_QC215_250616	Jun 16, 2025		Water	L25-Jn0045162		X
16	0089_QC216_250616	Jun 16, 2025		Water	L25-Jn0045163		X
17	0089_QC217_250616	Jun 16, 2025		Water	L25-Jn0045164		X
18	0089_QC218_250616	Jun 16, 2025		Water	L25-Jn0045165		X
19	0089_QC204_250605	Jun 16, 2025		Water	L25-Jn0045166		X

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
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Site# 25466

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1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
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NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose
Auckland 1061
+64 9 526 4551
IANZ# 1327

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Unit C1/4 Pacific Rise
Mount Wellington
Auckland 1061
+64 9 525 0568
IANZ# 1308

Christchurch
43 Detroit Drive
Rolleston
Christchurch 7675
+64 3 343 5201
IANZ# 1290

Tauranga
1277 Cameron Road
Gate Pa
Tauranga 3112
+64 9 525 0568
IANZ# 1402

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1233380
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Jun 17, 2025 11:40 AM
Due: Jun 24, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554	X	X
External Laboratory		
Test Counts	4	19

Appendix F

Field notes

Purging and Sampling Record

Well ID: 0089_MW010

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.581 m bTOC	**Time SWL Measured:**	04:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.430 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:10	1.10		7.43	2832.0	1.15	-210.8	1842.0		clear, colourless, low turbidity, some sediment, no sheen, distinct hydrocarbon
									odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?		Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?		Potential data entry error, confirm the value entered is correct				
COC updated?						

Comment: distinct hydrocarbon odour, gatic also full of water

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC100_250603
#Primary sample containers	2	Duplicate analysis:	2	Duplicate 2 ID:	0089_QC200_250603

Purging and Sampling Record

Well ID: 0089_MW109

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.856 m bTOC	**Time SWL Measured:**	09:45 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.786 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:00	0.80	21.0	7.49	929.0	15.79	-85.2	604.0		clear, colourless,low turbidity, low sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW112

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.203	m bTOC	**Time SWL Measured:**	09:20 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.846	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	-	m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3	to 6 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**		m
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:30	0.80	22.0	7.59	500.0	14.52	-160.4	325.5		clear, yellow tinge, low turbidity, low sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW120

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.774 m bTOC	**Time SWL Measured:**	08:55 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.738 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:05	0.60	19.1	7.70	695.0	27.30	-161.2	451.1		cloudy white, medium turbidity, some light grey sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC105_250606
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC205_250606

Purging and Sampling Record

Well ID: 0089_MW121

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.063 m bTOC	**Time SWL Measured:**	10:10 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.961 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.7 to 5.7 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:20	0.20	20.8	7.99	529.0	19.46	-82.3	343.8		cloudy white, low turbidity, some sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: HS had been shortened to about 0.5m. Redeployed with same dimesions. Possible blocked well

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW123

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	6.038 m bTOC	**Time SWL Measured:**	11:00 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.716 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 8 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:10	0.90	21.4	7.55	882.0	12.40	-130.8	573.0		clear, colourless, low turbidity, some white sediment at base of Hydrasleeve,
									no sheen or odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: lab dub collected

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	4	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW124

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.594 m bTOC		**Time SWL Measured:**	01:10 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.136 m bTOC		**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC		**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 4 m bgl				
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm		**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
01:20	1.10	20.6	7.21	41269.0	13.33	-95.6	26834.0		clear, colourless, low turbidity, no sediment load, no sheen, faint seawater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Well hidden in a bush on beach, 50m north of entry track

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW125

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.534 m bTOC	**Time SWL Measured:**	01:30 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.334 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.2 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45	0.90	20.1	7.24	40696.0	8.80	-104.5	26449.0		clear, colourless, low turbidity, low sediment, no sheen, salt water odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: lab dup and lab ms collected. stick up nearly buried by sand

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 6 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW126

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.582 m bTOC	**Time SWL Measured:**	02:10 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.203 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.3 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:15	0.60	20.4	7.22	35393.0	953.00	-122.2	23038.0		clear, colourless, low turbidity, low sediment, black staining on Hydrasleeve,
									dead organic matter odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW127

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.404 m bTOC	**Time SWL Measured:**	02:40 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.107 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.9 to 3.9 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:50	0.80	21.1	7.18	63112.0	5.33	-95.1	23482.0		clear, colourless, low turbidity, some grey sediment, no sheen, saltwater odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: hidden in bushes on beach, no top of monument, PVC with well cap

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW128

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.983 m bTOC	**Time SWL Measured:**	08:30 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.818 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:35	0.50	18.4	7.56	788.0	15.35	-152.6	513.0		cloudy white, low turbidity, some grey sediment, no sheen, no disticnt odour,
									rootlets at top of Hydrasleeve

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: lab dub and lab ms collected

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	6	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW139

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.802 m bTOC	**Time SWL Measured:**	08:50 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.796 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl			
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:58	1.10	19.8	6.67	3976.0	14.32	-177.0	2586.0		clear, colourless, low turbidty, some pale yellow sediment at base of
									Hydrasleeve, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: dup and split taken

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC107_250611
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC207_250611

Purging and Sampling Record

Well ID: 0089_MW141

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.484 m bTOC	**Time SWL Measured:**	10:10 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.152 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl			
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.2 m	
Round:	Post Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:15	1.10	20.9	7.55	29344.0	1320.00	-219.2	19094.0		clear, colourless, low turbidty, low sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: lab dub collected

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW142

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.951 m bTOC	**Time SWL Measured:**	09:50 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.746 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.25 to 4 m bgl			
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:55	0.60	20.6	7.44	47174.0	12.98	-213.5	30747.0		clear, colourless, low turbidity, some pale yellow sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW147

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.852 m bTOC	**Time SWL Measured:**	09:15 AM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.495 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes		
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl				
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.3 m		
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:20	0.80	18.7	7.03	25153.0	9.72	-180.6	16358.0		clear, colourless, no turbidty, some brown sediment, no sheen, no odour,
									some rootlets at top of Hydrasleeve

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: blue stickup in bushes

Sample Summary

Samples collected? Yes — Duplicate collected? — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW149

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.523 m bTOC	**Time SWL Measured:**	09:30 AM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.387 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes		
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl				
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.3 m		
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:40	1.10	18.1	7.06	51373.0	9.87	-188.7	33387.0		clear, colourless, low turbidty, no sediment, no sheen, salt water odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: pvc stickup on beach

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW158

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	13.984 m bTOC	**Time SWL Measured:**	04:15 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	15.861 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	15 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	06/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:20	0.50	19.4	7.38	13926.0	14.00	-190.3	9055.0		clear, colourless, low turbidity, low sediment, no sheen,
									strong dead organic matter odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: some dead organic matter in HS

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW161

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	16.527 m bTOC	**Time SWL Measured:**	03:50 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	18.335 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	17 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:00	1.00	20.4	7.53	3174.0	6.52	-121.4	2064.0		Clear, colourless, low turbidity, no sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW166

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	11.092 m bTOC	**Time SWL Measured:**	01:41 PM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.605 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	12 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes		
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13 m bgl				
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.6 m		
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:47	0.60	19.7	7.42	5935.0	8.26	-100.6	3858.0		clear, slight yellow tinger, low turbidity, low sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW171

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	28.567	m bTOC	**Time SWL Measured:**	03:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	31.924	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	30 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	-	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	28.5	to 31.5 m bgl			
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.2	m
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:10	0.90	20.6	7.44	7388.0	6.66	-92.5	4804.0		clear, colourless, no turbidity, no sediment, no odour or sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC106_250609
#Primary sample containers	1	Duplicate analysis:		Duplicate 2 ID:	0089_QC206_250609

Purging and Sampling Record

Well ID: 0089_MW173

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	9.427 m bTOC	**Time SWL Measured:**	08:50 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	11.386 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	10 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.3 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
00:00	0.80	19.8	7.23	4806.0	8.19	-635.2	3125.0		clear, very pale yellow, low turbidity, no sediment, no sheen, no odour
									rootlets present.

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: some small rootlets on the dipper. MW inside WWTP, map says outside

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW193

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	11.071 m bTOC	**Time SWL Measured:**	09:35 AM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.412 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	12 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes		
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13.5 m bgl				
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m		
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:45	0.30	19.8	7.49	2341.0	6.88	-622.9	1522.0		clear, colourless, low turbidity, some sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: well blocked at 12.412mbgl

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW195D

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.758 m bTOC	**Time SWL Measured:**	10:25 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.375 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	11 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13 m bTOC			
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:35	1.10	20.5	6.71	24123.0	6.66	-183.9	15689.0		clear colourless, no turbidty, light grey sediment at base of Hydrasleeve,
									no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: this well has been blocked for a while, still blocked at same depth

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW199

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	11.381 m bTOC	**Time SWL Measured:**	02:36 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	17.682 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	16.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	Unkown to	m bgl	
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.2 m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:45	1.10	18.3	6.82	18290.0	9.30	-147.6	11891.0		clear, colourless, low turbidity, no sediment, no sheen, strong organic odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW200

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.623 m bTOC	**Time SWL Measured:**	11:53 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.641 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	unkown to	m bgl	
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:59	0.60	22.0	7.73	9386.0	16.02	-128.1	6102.0		clear, colourless, no turbidity, no sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: small pvc well, no monument

Sample Summary

Samples collected? Yes — Duplicate collected? — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW202

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.514 m bTOC	**Time SWL Measured:**	01:45 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.927 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	75 mm	**Stick Up:**	0.8 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:48	0.30	19.4	7.22	2232.0	16.35	-90.7	1465.0		clear, colourless, low turbidty, no sediment, no sheen, no odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: pvc pipe under trees, no well cap or monument, large diameter 75mm

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW203

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	10.346 m bTOC	**Time SWL Measured:**	02:15 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.849 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	11 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	Unkown to	m bgl	
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:20	0.40	19.5	6.86	903.0	9.66	-119.1	588.0		clear, colourless, low turbidity, some brown sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW214

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	7.281 m bTOC	**Time SWL Measured:**	12:45 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.068 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	5.5 to 9 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:50	0.40	19.5	7.22	3727.0	3.86	-124.7	2423.0		clear, low turbidity, some dark grey sediment, no sheen, distinct hydrocarbon
									odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: some rootmatter on dipper but none on or in HS

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW215

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.112 m bTOC		**Time SWL Measured:**	01:30 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.802 m bTOC		**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC		**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1.5 to 4.5 m bgl				
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm		**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:40	0.40	20.7	7.34	3986.0	6.60	-163.8	2591.0		clear dark grey, medium turbidity, some sediment, small sheen, distinct
									hydrocarbon odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW216

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	7.523 m bTOC	**Time SWL Measured:**	12:15 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.431 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	9 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	6 to 9 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:20	0.50	19.8	7.52	2017.0	5.67	82.0	1311.0		clear, low turbidity, no sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW217

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	8.054 m bTOC	**Time SWL Measured:**	11:35 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.689 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	8.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	6.5 to 9.5 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:40	0.40	19.6	7.62	765.0	9.37	57.7	497.0		cloudy light grey, medium turbidity, some sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Lab Dup taken

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 4 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW220

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	6.405 m bTOC	**Time SWL Measured:**	11:05 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.258 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:15	0.80	19.2	7.58	663.0	5.36	-58.5	430.7		cloudy grey, medium turbidity, moderate dark grey sediment load, no sheen,
									distinct organic odour, some rootlets at top of Hydrasleeve

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW224

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	12.821 m bTOC	**Time SWL Measured:**	10:32 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	14.216 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	13 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	11.25 to 14.25 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:40	0.60	18.9	7.85	834.0	12.43	88.3	542.0		slightly cloudy white, some turbidity, some sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW225

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.509 m bTOC	**Time SWL Measured:**	02:10 PM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.416 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No		
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl				
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m		
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:16	0.80	20.7	7.42	2771.0	3.57	-157.4	1801.0		clear, slight pale yellow tinge, some grey sediment, no sheen, faint organic odou

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: lab dub and lab ms collected

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 6 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW226

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.326 m bTOC	**Time SWL Measured:**	02:50 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.024 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75 to 3.8 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:00	1.10	20.7	7.25	41315.0	4.18	-10.3	26863.0		clear, yellow tinge, low turbidity, no sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW227

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.498	m bTOC	**Time SWL Measured:**	04:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.106	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	-	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1.25	to 4.25 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.5	m
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:05	0.70	19.9	7.53	4452.0	3.21	-196.3	2888.0		clear, moderate turbidity, low sediment, light sheen, distinctive hydrocarbon
									odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: MW is located north of marked position on map

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW228

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.756	m bTOC	**Time SWL Measured:**	03:45 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.356	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	-	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.75	to 3.75 m bgl			
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.5	m
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:50	0.50	19.6	7.69	10293.0	11.14	-39.8	6690.0		clear, yellow tinge, low turbidity, no sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW233

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.096 m bTOC	**Time SWL Measured:**	02:20 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.480 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:21	0.30	18.3	7.59	308.1	11.89	-370.5	203.5		clear, colourless, low turbidity, no sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW236

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.907 m bTOC	**Time SWL Measured:**	01:20 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.068 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bTOC			
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:25	0.60	21.1	8.33	665.0	12.23	-417.5	432.9		clear, pale yellow, low turbidity, some brown sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW238

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.211 m bTOC	**Time SWL Measured:**	12:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.032 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bTOC			
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:05	0.80	20.3	8.16	815.0	8.63	-404.8	531.0		clear, colourless, low turbidity, no sediment, no sheen, no odour,
									some floating organic matter and rootlets at top of Hydrasleeve

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW239

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	12:15 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
									Well blocked at 2.742mbgl not sampled

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: Well buried by infill sand, no sleeve, Blocked at 2.742

Sample Summary

Samples collected? No — Duplicate collected? — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW240

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.852 m bTOC	**Time SWL Measured:**	11:45 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.799 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:50	0.60	20.1	9.01	954.0	9.01	-375.6	619.0		clear, colourless, low turbidity, some brown sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: lan dub and lab ms taken

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	6	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW242

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	2.979 m bTOC	**Time SWL Measured:**	10:36 AM	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	4.259 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	04/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45		24.1	7.79	557.0	28.55	22.1	362.4	2.979	
13:49	0.20	24.2	7.76	556.0	20.76	14.3	361.3	2.979	
13:53	0.40	24.3	7.76	554.0	21.54	10.7	359.8	2.979	
13:57	0.60	24.2	7.76	550.0	24.14	7.5	355.9	2.979	
14:01	0.80	24.2	7.76	551.0	25.06	4.3	357.2	2.979	
14:05	1.00	24.2	7.73	552.0	26.20	4.2	358.2	2.979	clear, low turbidity, no sediment, no sheen, no odour, 50ml/min

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: blocked at 4.259m sampled using peri

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW243

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.278 m bTOC	**Time SWL Measured:**	12:30 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.948 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:30	1.10	19.6	7.44	933.0	10.91	-419.0	605.0		clear, colourless, low turbidity, some brown sediment, no sheen, no odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW245

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.948 m bTOC	**Time SWL Measured:**	12:45 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.327 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	- to - m bgl			
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:50	1.10	18.5	7.07	792.0	8.84	-357.8	515.0		clear, colourless, low turbidity, no sediment load, slight sheen, moderate
									to strong hydrocarbon odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW249

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.764 m bTOC	**Time SWL Measured:**	09:45 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.236 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.5 to 6.5 m bgl			
Date:	04/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:50	0.70	21.4	7.43	1532.0	1279.00	-1624.0	996.0		clear, some black staining on Hydrasleeve, low turbidity, no sheen,
									distinct hydrocarbon odour, some rootlets at top of Hydrasleeve

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: some black staining in HS, some rootlets at top of HS

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC102_250604
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC202_250604

Purging and Sampling Record

Well ID: 0089_MW255

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.951 m bTOC	**Time SWL Measured:**	02:55 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.325 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:00	1.10	22.1	7.56	920.0	0.95	98.4	598.0		clear colourless, low turbidity, no sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Well deeper than SAQP, checked for other wells in the area, no others

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW256

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.166 m bTOC	**Time SWL Measured:**	02:22 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.661 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:29	0.10	21.3	6.97	1720.0	2.77	117.2	1119.0		clear, low turbidity, no sediment, no sheen, no odour, some rootlets
									in Hydrasleeve, low volume

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: some rootlets in HS, low volume

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW257

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.154 m bTOC	**Time SWL Measured:**	12:58 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.296 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.7 to 5.7 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:00		23.4	7.82	500.0	4.77	71.1	325.0		clear, low turbidity, no sediment load, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW258

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.405 m bTOC	**Time SWL Measured:**	12:25 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.342 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:25		23.2	7.21	1326.0	1.34	117.3	862.0		clear, low turbidity, no sediment, no sheen, no odour, some root matter
									in Hydrasleeve

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: some root matter at top of hs

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW259

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.159 m bTOC	**Time SWL Measured:**	01:29 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.413 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:30		21.5	7.32	635.0	1.05	102.1	412.8		clear, slight yellow tinge, low turbidity, no sediment, no sheen, no odour,
									roots clustered at top of Hydrasleeve

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: small rootlets clustered at top of HS same has MW258

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW268

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.436 m bTOC	**Time SWL Measured:**	05:10 PM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.741 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes		
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5 to 2.5 m bgl				
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m		
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:16	0.90	21.6	7.28	7020.0	1.76	-31.9	4562.0		clear colourless, low turbidity, some sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW269

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.540	m bTOC	**Time SWL Measured:**	05:30 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.852	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	-	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.5	to 5.5 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	0.5	m
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:35	1.10	20.2	7.43	2133.0	3.06	-155.1	1387.0		clear, low turbidity, some sediment, no sheen, no odour, rootlets at top of
									Hydrasleeve

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC101_250603
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC201_250603

Purging and Sampling Record

Well ID: 0089_MW282

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	5.136 m bTOC		**Time SWL Measured:**	09:12 AM	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	6.432 m bTOC		**Logic Check:**	No	
Proj. No.:	12641234	**Sample Depth:**	6 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	No	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC		**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 7.5 m bgl				
Date:	05/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm		**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:30		21.9	7.56	1120.0	23.19	138.3	730.0	5.136	clear, low turbidity, some pale yellow sediment, no sheen, faint hydrocarbon
09:35	0.05	21.8	7.33	1141.0	23.08	131.8	742.0	5.136	odour, 50ml/min
09:40	0.25	21.9	7.16	1154.0	22.12	127.6	750.0	5.136	
09:45	0.50	21.8	7.08	1175.0	24.61	91.8	765.0	5.136	clear, low turbidity, no sediment, no sheen, faint hydrocarbon odour, 50ml/min
09:50	0.75	21.8	7.08	1164.0	20.91	97.1	755.0	5.136	
09:55	1.00	21.8	7.08	1154.0	20.21	99.4	751.0	5.136	
10:00	1.50	21.8	7.08	1154.0	19.85	100.5	750.0	5.136	clear, low turbidity, no sediment, no sheen, faint hydrocarbon odour, 50ml/min

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Broken plastic well cover, well cap still in place

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC104_250605
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC204_250605

Purging and Sampling Record

Well ID: 0089_MW288

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.261 m bTOC	**Time SWL Measured:**	12:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.832 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2.25 to 5.25 m bgl			
Date:	04/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:05	1.10	21.0	7.55	796.0	22.18	-42.1	517.0		clear colourless, low turbidity, low sediment, no sheen, no odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC103_250604
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC203_250604

Purging and Sampling Record

Well ID: 0089_MW289

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.836 m bTOC	**Time SWL Measured:**	02:35 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.018 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.25 to 6.25 m bgl			
Date:	04/06/2024	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:40	0.80	22.0	7.68	773.0	25.95	-35.2	503.0		clear, low turbidity, some sediment, no sheen, no odour, some rootlets in
									Hydrasleeve

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Buried by grass, in most eastern pedestrian island inline with 3 grouped aircon units on other side of road, northern side of footpath

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW468

Job Information		*Sampling Information*		*Monitoring Well Information*					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.934	m bTOC	**Time SWL Measured:**	12:15 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.864	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2 m bTOC	**NAPL Check:**	Absent		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	-	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1	to 1.2 m bgl			
Date:	10/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50	mm	**Stick Up:**	1	m
Round:	Winter 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:30	0.30	20.9	6.97	22000.0	6.37	-58.3	14300.0		pale orange, clear, low turbidity, some sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW496

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.533 m bTOC	**Time SWL Measured:**	08:38 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.187 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3.5 to 8 m bgl			
Date:	04/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:45	0.40	20.4	7.43	1475.0	12.24	-264.2	960.0		clear, low turbidity, no sediment, no sheen, distinct hydrocarbon odour, some
									rootlets

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW500

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.079 m bTOC	**Time SWL Measured:**	11:32 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.696 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 6.5 m bgl			
Date:	06/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:35	0.90	22.4	7.34	855.0	8.21	-42.0	556.0		clear, medium turbidity, medium yellow sediment load, no sheen or odour,
									pale yellow sand on outside of HS

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: MW500 replacement for MW117

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW516

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	5.832 m bTOC	**Time SWL Measured:**	09:06 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.861 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	4.5 to 7.5 m bgl			
Date:	04/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	0.5 m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:12	0.60	21.4	7.07	1310.0	15.00	-151.2	852.0		clear, slight pale yellow tinge, low turbidity, no sediment, no sheen, distinct
									hydrocarbon odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW553

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.263 m bTOC	**Time SWL Measured:**	03:38 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.704 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	3 to 6 m bgl			
Date:	03/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	Winter 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:50	1.10	21.0	7.43	847.0	1.80	-145.1	551.0		clear, colourless, low turbidity, no sediment, no sheen, distinct hydrocarbon
									odour, rootlets on Hydrasleeve and some of Hydrasleeve twine stained black

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: distinct hydrocarbon odour and black staining on HS twine

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW304

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:53		16.7	7.37	54563.0	8.40	-335.1	35469.0		
14:56		16.7	7.36	54580.0	7.48	-335.9	35486.0		
14:59		16.7	7.34	54588.0	7.34	-339.5	35467.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW306

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:12		17.9	7.30	53634.0	12.66	-283.7	34912.0		
09:15		18.1	7.53	53822.0	11.86	-334.5	34984.0		
09:18		18.1	7.53	53856.0	11.77	-305.8	35018.0		
09:21		18.1	7.53	53853.0	11.82	-326.5	35006.0		
09:24		18.2	7.53	53864.0	11.46	-314.0	35019.0		clear, colourless, low turbidity, no sheen, saltwater and seaweed odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC115_2506116
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC215_2506116

Purging and Sampling Record

Well ID: 0089_PW307

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:14		17.6	7.76	53856.0	12.70	-318.2	34990.0		
11:17		17.4	7.73	53722.0	12.30	-304.0	34947.0		
11:20		17.4	7.72	53753.0	12.15	-304.4	34954.0		
11:23		17.4	7.72	53742.0	12.23	-321.5	34927.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: lab dup and lab ms collected

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:
#Primary sample containers	6	Duplicate analysis:		Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW308

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:58		18.9	7.91	53849.0	14.46	-300.3	35000.0		
12:01		18.9	7.94	53841.0	11.80	-301.3	34993.0		
									Hole collapsed dug new hole
12:18		18.3	7.98	53477.0	12.25	-299.6	34719.0		
12:21		18.3	7.96	53360.0	12.60	-296.9	34659.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Lab duplicate collected

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	4	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW314

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**		**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**		**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**		**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**		**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**		**Well Diameter:**	mm	**Stick Up:**	m
Round:		**Field Filtered?**					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
									Could not complete due to refusal. Attempted to sample at 4 locations.

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? No — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW315

Job Information		Sampling Information		Monitoring Well Information	
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm
Round:	Winter 2025	**Field Filtered?**	No		

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:10		16.7	7.61	53991.0	13.32	-344.8	35096.0		
10:13		16.7	7.61	54010.0	13.02	-330.6	35106.0		
10:16		16.7	7.59	54041.0	12.64	-276.6	35131.0		clear, colourless, low turbidity, low sediment, no sheen, seawater and seaweed odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: Lab QC- Lab duplicate and matrix spike collected

Sample Summary

Samples collected? Yes
#Primary sample containers 6
Duplicate collected? No
Duplicate analysis:
Duplicate 1 ID:
Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW316

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:33		19.2	7.85	53058.0	12.86	-312.7	34480.0		
11:36		19.2	7.85	53010.0	11.67	-322.5	34448.0		
11:39		19.2	7.83	53048.0	11.44	-317.7	34484.0		
11:42		19.2	7.82	53060.0	11.33	-309.6	34490.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Lab duplicate collected

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	4	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW329

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:00	0.25	18.4	7.92	50363.0	18.68	-237.4	32793.0		
11:05	0.50	18.5	8.12	51240.0	16.48	-244.7	33395.0		
11:10	0.75	18.5	7.99	51649.0	16.06	-235.0	33580.0		
11:15	1.00	18.4	7.69	57163.0	15.60	-225.1	33678.0		clear, colourless, low sediment, low turbidity, no sheen, saltwater odour,
									70ml/min

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: dup and split taken

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC108_250611
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC208_250611

Purging and Sampling Record

Well ID: 0089_PW330

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:10	0.25	19.0	8.22	53804.0	13.07	-259.8	34969.0		
12:15	0.50	19.0	8.06	53802.0	13.04	-265.1	34981.0		
12:20	0.75	19.0	8.02	53831.0	13.03	-252.4	34987.0		
12:25	1.00	19.0	8.04	53829.0	13.28	-247.2	34988.0		clear, colourless, no turbidity, no sediment, no sheen, no odour, 70ml/min

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW331

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:05	0.25	18.4	8.88	53560.0	15.89	-291.9	34680.0		
13:08	0.50	18.2	8.40	52796.0	13.00	-275.0	34283.0		
13:11	0.75	18.1	9.20	52529.0	11.84	-341.2	34107.0		
13:14	1.00	18.0	8.66	52377.0	12.12	-290.9	34031.0		
13:17	1.25	18.0	8.69	52267.0	11.84	-303.7	33973.0		clear, salty odour, no sheen, no sediment, no turbidity, 70ml/min

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW335

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:45		16.3	7.29	52710.0	17.33	-436.5	34266.0		
08:48		16.3	7.33	52716.0	14.03	-453.7	34268.0		
08:49		16.3	7.32	52683.0	13.68	-455.2	34239.0		
08:52		16.3	7.32	52693.0	13.28	-454.4	34244.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW340

Job Information		Sampling Information		Monitoring Well Information	
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm
Round:	Winter 2025	**Field Filtered?**	No		

Monitoring Well Information	
Time SWL Measured:	
Logic Check:	
Well Cap Secure?	
Gatic or Stick Up?	
Stick Up:	m

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:24		16.6	7.61	53684.0	11.84	-421.0	34903.0		
10:27		16.5	7.58	53658.0	10.90	-421.6	34881.0		
10:30		16.5	7.57	53724.0	10.80	-420.0	34918.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW341

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:42		16.4	7.57	50832.0	10.60	-434.6	34353.0		
09:45		16.3	7.54	53026.0	9.23	-435.9	34473.0		
09:48		16.3	7.53	53090.0	11.26	-436.4	34567.0		
09:51		16.2	7.54	53161.0	8.63	-435.7	34553.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment: Lab duplicate and mayrix spike collected

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	6	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW345

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:32		16.7	7.38	54633.0	13.01	-380.4	35520.0		
12:35		16.7	7.38	54644.0	10.65	-384.4	35518.0		
12:38		16.7	7.38	54600.0	8.46	-387.0	35487.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW346

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:04		18.7	7.40	16664.0	10.30	-332.1	10806.0		
16:07		18.9	7.36	16746.0	7.21	-331.2	10844.0		
16:10		18.9	7.34	16653.0	6.66	-329.5	10803.0		clear, colourless, no turbidity, no sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW350

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Bailer	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	Yes				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:48		20.3	8.05	55743.0	7.98	-86.4	36258.0		cloudy, high turbidity, high sediment load, no sheen, no odour

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings	
	Current parameter is stablised based on the previous 3 readings
	Current parameter is not stabilised based on the previous 3 readings
	Potential data entry error, confirm the value entered is correct

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: lab dub and lqb ms collected

Sample Summary

Samples collected?	Yes	Duplicate collected?		Duplicate 1 ID:	
#Primary sample containers	6	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW351

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Bailer	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:25		20.5	8.13	54924.0	10.64	-88.5	35742.0		clear, slightly cloudy, medium turbidity, high sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW352

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Bailer	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	06/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:20		21.4	8.16	55578.0	7.94	-80.4	36135.0		cloudy white, moderate turbidity, some sediment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW356

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:35	0.25	18.4	9.41	53751.0	14.04	-326.5	34940.0		
13:40	0.50	18.4	9.31	53731.0	13.35	-360.0	34930.0		
13:45	0.75	18.4	9.69	53722.0	13.29	-337.2	34921.0		
13:50	1.00	18.4	9.86	53712.0	13.23	-355.6	34914.0		
13:55	1.25	18.4	9.72	53691.0	13.50	-365.6	34923.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour 70ml/min

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW357

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:40	0.25	19.2	8.25	53628.0	12.64	-267.4	34860.0		
12:45	0.50	19.2	8.48	53625.0	12.23	-288.9	34863.0		
12:50	0.75	19.2	8.45	53640.0	12.47	-264.5	34861.0		
12:55	1.00	19.2	8.45	53671.0	12.26	-292.9	34896.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour, 70ml/min

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW358

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	11/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:45	0.25	19.1	8.34	53749.0	14.64	-252.8	34941.0		
11:50	0.50	19.1	8.24	53767.0	14.06	-255.0	34949.0		
11:55	0.75	19.0	8.09	53780.0	13.62	-265.1	34955.0		
12:00	1.00	19.1	8.43	53782.0	13.48	-254.3	34960.0		
12:05	1.25	19.0	8.28	53785.0	13.23	-266.6	34960.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour, 70ml/min

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*		
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW362

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:07		16.6	7.51	52846.0	7.57	-426.6	34349.0		
10:10		16.6	7.49	52805.0	7.88	-427.1	34317.0		
10:13		16.6	7.47	52744.0	7.74	-421.9	34285.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW363

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:20		17.3	7.58	54181.0	15.67	-447.3	35300.0		
09:23		17.1	7.56	54282.0	14.26	-448.0	35366.0		
09:26		17.0	7.51	54056.0	13.04	-448.5	35136.0		
09:29		17.1	7.51	54083.0	12.00	-446.2	35141.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW364

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:47		16.7	7.59	54181.0	10.79	-411.5	35220.0		
10:50		16.6	7.56	54091.0	10.53	-411.9	35148.0		
10:53		16.6	7.54	54183.0	10.98	-413.6	35218.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW367

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**		**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**		**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**		**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**		**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**		**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
									Could not complete location due to thick seaweed covering beach

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Stabilisation Readings

- Current parameter is stablised based on the previous 3 readings
- Current parameter is not stabilised based on the previous 3 readings
- Potential data entry error, confirm the value entered is correct

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? | Duplicate collected? | Duplicate 1 ID:

#Primary sample containers | Duplicate analysis: | Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW368

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:26		16.0	7.39	41186.0	17.74	-343.8	26621.0		
14:29		16.0	7.46	39805.0	9.58	-348.6	25771.0		
14:32		16.0	7.46	39109.0	8.20	-349.5	25451.0		
14:35		15.9	7.45	39098.0	7.45	-346.6	25359.0		clear, colourless, no turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW369

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	13/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:53		18.3	7.20	20740.0	9.48	-365.6	13344.0		
12:56		18.2	7.15	20622.0	7.86	-368.3	13394.0		
12:59		18.3	7.14	20548.0	7.49	-369.1	13379.0		
13:02		18.3	7.13	20572.0	7.12	-368.2	13369.0		clear, pale yellow/brown colour, no turbidity, no sediment, no sheen,
									saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW374

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:55		16.3	7.61	54126.0	17.26	-452.4	35180.0		
15:58		16.3	7.61	54111.0	13.36	-458.8	35167.0		
16:01		16.3	7.60	54083.0	11.23	-460.5	35154.0		
16:04		16.3	7.60	54071.0	10.96	-460.9	35148.0		clear, colourless, low turbidity, no sediment, no sheen, saltwater odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW375

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:31		16.4	7.63	53520.0	13.54	-458.9	34788.0		
15:34		16.4	7.62	53517.0	13.25	-459.7	34785.0		
15:37		16.4	7.62	53452.0	13.14	-461.9	34803.0		clear, no sediment, no turbidity, salty odour, no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW378

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	12/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:04		16.8	9.32	53980.0	14.73	-418.6	35093.0		
15:07		16.7	8.42	53980.0	14.21	-430.5	35092.0		
15:10		16.7	7.86	53976.0	13.79	-440.9	35081.0		
15:13		16.7	7.73	53825.0	13.66	-445.5	34998.0		clear, salty odour, no sheen, no sediment, no turbidity

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC111_250612
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC211_250612

Purging and Sampling Record

Well ID: 0089_PW380

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Bailer	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:00		18.7	7.97	50938.0	13.68	-59.2	33551.0		cloudy, high turbidity, high seddiment, no sheen, no odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW381

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Bailer	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:30		21.1	8.15	54777.0	9.32	-84.2	35688.0		clear, slightly cloudy, med turbidity, high sediment, no sheen, faint saltwater
									odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW401

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Bailer	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	to	m bTOC	
Date:	09/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:31		20.7	8.11	54555.0	10.23	-50.2	35436.0		clear, no turbidity, salty odour, no sheen

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW405

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	N/A	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:36		16.3	7.64	53359.0	14.84	-312.5	34702.0		
16:39		16.1	7.67	53470.0	11.27	-276.3	34754.0		
16:42		15.9	7.67	53276.0	10.18	-257.0	34627.0		
16:45		15.8	7.68	53269.0	10.14	-277.1	34622.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC118_250616
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC218_250616

Purging and Sampling Record

Well ID: 0089_PW407

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:06		17.2	7.87	53875.0	35029.00	-305.3	35061.0		
16:09		17.2	7.83	54070.0	35141.00	-312.6	35128.0		
16:12		17.2	7.83	54004.0	35096.00	-285.6	35089.0		
16:15		17.2	7.82	53852.0	34991.00	-263.0	34974.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW409

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1m m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:19		16.5	7.54	52714.0	14.65	-309.7	34258.0		
15:22		16.5	7.55	52628.0	12.99	-324.0	34204.0		
15:25		16.5	7.55	52619.0	12.79	-311.2	34195.0		
15:28		16.5	7.55	52604.0	12.58	-308.1	34184.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW411

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:34		17.2	7.62	54067.0	12.98	-276.3	35122.0		
14:37		17.1	7.59	54046.0	12.44	-280.4	35118.0		
14:40		17.1	7.58	54012.0	12.46	-290.7	35103.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW413

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:05		17.4	7.54	54779.0	15.54	-315.2	35570.0		
14:08		17.2	7.53	54831.0	13.22	-275.1	35647.0		
14:11		17.1	7.52	54825.0	12.96	-300.9	35628.0		
14:14		17.0	7.52	54885.0	12.69	-302.5	35667.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		*Stabilisation Readings*	*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW415

Job Information		Sampling Information		Monitoring Well Information			
Client:	Department Of Defence	**Purge Method:**	Purge	**SWL:**	m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to	m bTOC	
Date:	16/06/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	Winter 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:37		17.9	7.40	54118.0	17.62	-327.0	35160.0		
13:40		17.9	7.40	54056.0	14.82	-328.0	35136.0		
13:43		17.9	7.40	54058.0	14.11	-319.0	35137.0		clear, colourless, low turbidity, low sediment, no sheen, salty odour

Field QA Checks:		Stabilisation Readings	Purge Volumes			
Air bubbles in vials or violent reactions?	No	Current parameter is stablised based on the previous 3 readings	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	Current parameter is not stabilised based on the previous 3 readings	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes	Potential data entry error, confirm the value entered is correct				
COC updated?	Yes					

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC117_250616
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC217_250616

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW353
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD350
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 4:04:48 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	not eroded

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, some sediment, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, white, poorly graded, medium to coarse, subrounded, moist

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.2
DO (mg/L)	10.19
DO (%S)	132.50
CONDUCTIVITY (µS/cm)	53977.0
pH (pH units)	8.14
REDOX (mV)	-144.1
TURBIDITY (NTU)	TDS (mg/L) -

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW353_250609	2			
0089_SD350_250609	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW384
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 11:09:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	not eroded

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sediment, no sheen, saltwater odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.0
DO (mg/L)	9.01
DO (%S)	122.10
CONDUCTIVITY (µS/cm)	53833.0
pH (pH units)	8.16
REDOX (mV)	-77.5
TURBIDITY (NTU)	TDS (mg/L) -

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW384_250609	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD401
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 11:30:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, white, poorly graded, med to coarse, moist, subrounded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD401_250609	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW383
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD380
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 11:45:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, some sediment, no sheen, no odour
SEDIMENT (describe as soil)	SAND, pale yellow, poorly graded, medium to coarse, moist, subrounded, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	21.9
DO (mg/L)	15.60
DO (%S)	211.20
CONDUCTIVITY (µS/cm)	541558.0
pH (pH units)	817.00
REDOX (mV)	-53.6
TURBIDITY (NTU)	TDS (mg/L) -

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW383_250609	2			
0089_SD380_250609	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD351
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 12:20:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	Sunny, slighht winds less than 15knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale yellow, poorly graded, medium to coarse, moist, subrounded, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD351_250609	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW382
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD352
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 1:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, wind less than 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, some sediment, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale yellow/white, poorly graded, med to coarse, subrounded, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.7
DO (mg/L)	9.84
DO (%S)	131.80
CONDUCTIVITY (µS/cm)	54140.0
pH (pH units)	8.18
REDOX (mV)	-89.8
TURBIDITY (NTU)	TDS (mg/L) - 35379

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW382_250609	4			Lab dup taken from SW
0089_SD352_250609	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD381
CLIENT:	Department of Defence	**DATE:**	9/06/2025 **TIME:** 12:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping west
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, moist, subrounded, some fine shell matteer

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD381_250609	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW156
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD329
CLIENT:	Department of Defence	**DATE:**	11/06/2025 **TIME:** 11:00:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, winds less tham 15knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, some sediment, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.4
DO (mg/L)	12.96
DO (%S)	172.30
CONDUCTIVITY (µS/cm)	53788.0
pH (pH units)	7.90
REDOX (mV)	-236.3
TURBIDITY (NTU)	TDS (mg/L) - 34955

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD329_250611	3	0089_QC109_250611	0089_QC209_250611	
0089_SW156_250611	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD358
CLIENT:	Department of Defence	**DATE:**	11/06/2025 **TIME:** 11:35:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, winds less than 15knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fne shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD358_250611	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW154
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD330
CLIENT:	Department of Defence	**DATE:**	11/06/2025 **TIME:** 12:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, winds less than 15knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, some sediment, no odour, no sheen
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.3
DO (mg/L)	11.90
DO (%S)	162.10
CONDUCTIVITY (µS/cm)	53982.0
pH (pH units)	8.68
REDOX (mV)	-283.8
TURBIDITY (NTU)	TDS (mg/L) - 35057

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW154_250611	2			
0089_SD330_250611	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW152
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD357
CLIENT:	Department of Defence	**DATE:**	11/06/2025 **TIME:** 12:40:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, winds, less than 15knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, no odour
SEDIMENT (describe as soil)	SAND, yellow/grey, poorly graded, med to coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.4
DO (mg/L)	11.04
DO (%S)	152.80
CONDUCTIVITY (µS/cm)	53697.0
pH (pH units)	8.31
REDOX (mV)	-264.9
TURBIDITY (NTU)	TDS (mg/L) -

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW152_250611	2			
0089_SD357_250611	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW150
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD331
CLIENT:	Department of Defence	**DATE:**	11/06/2025 **TIME:** 1:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, Pale grey/yellow, poorly graded, fine to med, subrounded, moist

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.7
DO (mg/L)	12.27
DO (%S)	162.20
CONDUCTIVITY (µS/cm)	53668.0
pH (pH units)	8.88
REDOX (mV)	-303.6
TURBIDITY (NTU)	TDS (mg/L) - 34923

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW150_250611	2			
0089_SD331_2560611	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD356
CLIENT:	Department of Defence	**DATE:**	11/06/2025 **TIME:** 1:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	N/A
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorly graded, fine to med, subrounded, moist

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD351_250611	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW318
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD375
CLIENT:	Department of Defence	**DATE:**	12/06/2025 **TIME:** 3:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale yellow, poorly graded, med to coarse, subrounded, most, some fine shell metter

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.7
DO (mg/L)	12.54
DO (%S)	160.00
CONDUCTIVITY (µS/cm)	52893.0
pH (pH units)	7.90
REDOX (mV)	-469.5
TURBIDITY (NTU)	TDS (mg/L) - 34399

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD375_250612	1			
0089_SW318_250612	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW317
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD378
CLIENT:	Department of Defence	**DATE:**	12/06/2025 **TIME:** 3:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey,poorly graded, med to coarse, subrounded, moist, some fine shell metter

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.7
DO (mg/L)	12.45
DO (%S)	160.20
CONDUCTIVITY (µS/cm)	53146.0
pH (pH units)	7.93
REDOX (mV)	-460.3
TURBIDITY (NTU)	TDS (mg/L) - 34543

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD378_250612	1	0089_QC110_250612	0089_QC210_250612	
0089_SW317_250612	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW319
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD374
CLIENT:	Department of Defence	**DATE:**	12/06/2025 **TIME:** 3:45:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale yellow, poorly graded, med ot coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.5
DO (mg/L)	11.91
DO (%S)	153.80
CONDUCTIVITY (µS/cm)	53740.0
pH (pH units)	7.91
REDOX (mV)	-465.3
TURBIDITY (NTU)	TDS (mg/L) - 34940

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW319_250612	2			
0089_SD374_250612	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD346
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 4:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to med, moist, subrounded, some seaweed in sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD346_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW370
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD345
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 12:10:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to medium, subrounded, moist, some seaweed in sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.0
DO (mg/L)	10.03
DO (%S)	
CONDUCTIVITY (µS/cm)	53115.0
pH (pH units)	7.91
REDOX (mV)	-387.5
TURBIDITY (NTU)	TDS (mg/L) - 34589

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD345_250613	1			
0089_SW370_250613	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD369
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 12:06:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to med, subrounded, moist, some seaweed in sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD369_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD367
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 12:10:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION AREA NOT SAMPLED, NO SAMPLE TAKEN, AREA COVERED IN WEED

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD364
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 10:41:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD364_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW132
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD340
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 10:30:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.7
DO (mg/L)	10.59
DO (%S)	
CONDUCTIVITY (µS/cm)	53636.0
pH (pH units)	7.98
REDOX (mV)	-423.1
TURBIDITY (NTU)	TDS (mg/L) - 34865

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW132_250613	2			
0089_SD340_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD362
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 10:05:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD362_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW134
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD341
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 9:45:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.8
DO (mg/L)	10.89
DO (%S)	138.70
CONDUCTIVITY (µS/cm)	53784.0
pH (pH units)	7.96
REDOX (mV)	-435.5
TURBIDITY (NTU)	TDS (mg/L) - 34975

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW134_250613	2			
0089_SD341250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW130
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD335
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 9:30:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.7
DO (mg/L)	11.54
DO (%S)	149.20
CONDUCTIVITY (µS/cm)	53652.0
pH (pH units)	7.74
REDOX (mV)	-454.4
TURBIDITY (NTU)	TDS (mg/L) - 34882

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW130_250613	2	0089_QC112_250613	0089_QC212_250613	
0089_SD335_250613	1	0089_QC113_250613	0089_QC213_250613	

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD363
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 9:15:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to coarse, subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD363_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW372
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 3:13:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.1
DO (mg/L)	10.02
DO (%S)	
CONDUCTIVITY (µS/cm)	52817.0
pH (pH units)	7.91
REDOX (mV)	-338.4
TURBIDITY (NTU)	TDS (mg/L) - 34341

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW372_250613	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW373
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 3:10:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater/seaweed odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.2
DO (mg/L)	10.08
DO (%S)	
CONDUCTIVITY (µS/cm)	53485.0
pH (pH units)	7.90
REDOX (mV)	-347.1
TURBIDITY (NTU)	TDS (mg/L) - 34765

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW373_250613	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW305
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD304
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 3:03:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater/seaweed odour
SEDIMENT (describe as soil)	SAND, pale grey poorly graded, fine to med, subrounded, moist, some seaweed in sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.6
DO (mg/L)	9.63
DO (%S)	
CONDUCTIVITY (µS/cm)	53661.0
pH (pH units)	7.91
REDOX (mV)	-353.1
TURBIDITY (NTU)	TDS (mg/L) - 34885

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD304_250613	1			
0089_SW305_250613	2			lab dup taken

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW371
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD368
CLIENT:	Department of Defence	**DATE:**	13/06/2025 **TIME:** 2:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater/seaweed odour
SEDIMENT (describe as soil)	SAND, pale grey, poorly graded, fine to med, subrouded, moist, some seaweed in sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.1
DO (mg/L)	11.20
DO (%S)	
CONDUCTIVITY (µS/cm)	53702.0
pH (pH units)	7.96
REDOX (mV)	346.2
TURBIDITY (NTU)	TDS (mg/L) - 34512

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW371_250613	2			
0089_SD368_250613	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW406
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD405
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 4:45:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs with coatsal trees behind sample location
SLOPE	sloping east
EROSION	eroded dunes behind sample location

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale brown/grey, poorly graded, fine to med, subangular/subrounded, moist, some fine shell matter, trace rootlets

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.6
DO (mg/L)	9.87
DO (%S)	130.20
CONDUCTIVITY (µS/cm)	53535.0
pH (pH units)	8.07
REDOX (mV)	-336.0
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW408_250616	2			
0089_SD407_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW408
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD407
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 4:10:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs with coatsal trees behind sample location
SLOPE	sloping east
EROSION	eroded dunes behind sample location

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale brown/grey, poorly graded, fine to med, subangular/subrounded, moist, some fine shell matter, trace rootlets

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.7
DO (mg/L)	11.10
DO (%S)	147.80
CONDUCTIVITY (µS/cm)	53785.0
pH (pH units)	8.05
REDOX (mV)	-280.7
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW408_250616	2			
0089_SD407_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW410
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD409
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 3:35:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	sloping east
EROSION	eroded dunes behind sample location

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale brown/grey, poorly graded, fine to med, subangular/subrounded, moist, some fine shell matter, trace rootlets

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.9
DO (mg/L)	10.61
DO (%S)	140.90
CONDUCTIVITY (µS/cm)	53900.0
pH (pH units)	8.02
REDOX (mV)	-305.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW410_250616	2			
0089_SD409_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW412
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD411
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 2:45:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southeast
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorly graded, fine to med, subangular/subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.2
DO (mg/L)	10.72
DO (%S)	142.80
CONDUCTIVITY (µS/cm)	53683.0
pH (pH units)	8.08
REDOX (mV)	-283.6
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW412_250616	2			
0089_SD411_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW414
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD413
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 2:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southeast
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorly graded, fine to med, subangular/subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW414_250616	2			
0089_SD413_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW416
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD415
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 1:45:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southeast
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorly graded, fine to med, subangular/subrounded, moist, some fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.7
DO (mg/L)	13.44
DO (%S)	179.40
CONDUCTIVITY (µS/cm)	54045.0
pH (pH units)	8.02
REDOX (mV)	-316.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW16_250616	2			
0089_SD415_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW311
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD308
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 12:17:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southwards
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey, poorlygraded, med to coarse, subangular/subrounded, moist, with shell fine matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.5
DO (mg/L)	14.13
DO (%S)	143.50
CONDUCTIVITY (µS/cm)	53794.0
pH (pH units)	7.99
REDOX (mV)	-338.7
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW311_250616	2			
0089_SD308_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD316
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 11:40:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southwards
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorlygraded, fine to med, subangular/subrounded, moist, with shell fine matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD316_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD307
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 10:40:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southwards
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorlygraded, fine to med, subangular/subrounded, moist, with shell fine matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD307_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW310
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD315
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 10:20:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southwards
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey, poorlygraded, fine to med, subangular/subrounded, moist, with shell fine matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.4
DO (mg/L)	8.75
DO (%S)	116.00
CONDUCTIVITY (µS/cm)	53814.0
pH (pH units)	7.96
REDOX (mV)	-334.3
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD315_250616	1			
0089_SW310_250616	6	0089_QC116_250616		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD314
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 9:50:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southwards
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale grey, poorlygraded, med to coarse, subangular/subrounded, moist, with shell fine matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD314_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SD306
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SW309
CLIENT:	Department of Defence	**DATE:**	16/06/2025 **TIME:** 9:12:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean, SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	slightly cloudy, wind less then 15 knts
VEGETATION	beach shrubs
SLOPE	steep gradient southwards
EROSION	surrounding rock headlands have clear erosion and undercutting of rock structures

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, low turbidity, no sheen, saltwater odour
SEDIMENT (describe as soil)	SAND, pale grey, poorlygraded, med to coarse, subangular/subrounded, moist, with shell fine matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.9
DO (mg/L)	12.02
DO (%S)	140.80
CONDUCTIVITY (µS/cm)	29658.0
pH (pH units)	7.88
REDOX (mV)	-320.6
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW308_2506116	2			
SW306_250616	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

QC duplicate sample register

Date/time	Primary sample ID	Blind Duplicate Sample ID	Split Duplicate Sample ID	Containers
3/6/25	0089-MW006-250603	0089-QC100-250603	0089-QC200-250603	x2 20ml pfas
3/6/25	0089-MW269-250603	0089-QC101-250603	0089-QC201-250603	x2 20ml pfas
4/6/25	0089-MW249-250604	0089-QC102-250604	0089-QC202-250604	x2 pfas bottles
4/6/25	0089-MW288-250604	0089-QC103-250604	0089-QC203-250604	x2 pfas bottles
5/6/25	0089-MW282-250605	0089-QC104-250605	0089-QC204-250605	x2 pfas bottles
6/5/25	0089-MW120-250606	0089-QC105-250606	0089-QC205-250606	x2 pfas bottles
9/6/25	0089-MW171-250609	0089-QC106-250609	0089-QC206-250609	x2 pfas bottles
11/6/25	0089-MW139-250611	0089-QC107-250611	0089-QC207-250611	x2 pfas bottles
11/6/25	0089-PW329-250611	0089-QC108-250611	0089-QC208-250611	x2 pfas bottles
11/6/25	0089-SD329-250611	0089-QC109-250611	0089-QC209-250611	x2 pfas soil jar
12/6/25	0089-SD378-250612	0089-QC110-250612	0089-QC210-250612	x1 pfas soil jar
~~12/6/25~~ 12/6/25	0089-PW378-250612	0089-QC111-250612	0089-QC211-250612	x2 pfas bottles
13/6/25	0089-SW130-250613	0089-QC112-250613	0089-QC212-250613	x2 pfas bottles
13/6/25	0089-SD335-250613	0089-QC113-250613	0089-QC213-250613	x1 pfas soil jar
13/6/25	0089-SD345-250613	0089-QC114-250613	0089-QC214-250613	x1 PFAS soil Jar
16/6/25	0089-PW306-250616	0089-QC115-250616	0089-QC215-250616	2x PFAS bottles

QC duplicate sample register

Date/time	Primary sample ID	Blind Duplicate Sample ID	Split Duplicate Sample ID	Containers
16 16 125	0089_SW310-250616	0089-QC116-250616	0089-QC216-250616	2x PFAS 20mL bottles
16/6/25	0089-PC418-250616	0089-QC117-250616	0089-QC217-250616	2x Pfas bottles
16/6/25	0089-PC405-250616	0089-QC118-250616	0089-QC218-250616	2x pfas bottles

QA blank sample register

Date/time	QA blank sample ID	Type (please circle)	Notes Rinsate taken off, field blank location, trip blank lab ID	Containers
3/6/25	0089-QC300-250603	(RB) FB TB	taken off dipper	2x 20ml PFAS
3/6/25	0089-QC400-250603	RB (FB) TB	@ MW268	"
4/6/25	0089-QC301-250604	(RB) FB TB	taken off dipper	"
4/6/25	0089-QC401-250604	RB (FB) TB	@ MW259	"
5/6/25	0089-QC302-250605	(RB) FB TB	Taken off dipper	"
5/6/25	0089-QC402-250605	RB (FB) TB	@ MW223	"
6/6/25	0089-QC303-250606	(RB) FB TB	Taken off dipper	"
6/6/25	0089-QC403-250606	RB (FB) TB	@ Entrance to MW on beach East of FTG	"
9/6/25	0089-QC304-250609	(RB) FB TB	Taken off shovel	"
9/6/25	0089-QC404-250609	RB (FB) TB	@ entrance to PW samples on West side island	"
10/6/25	0089-QC405-250610	RB (FB) TB	@ MW199	"
10/6/25	0089-QC305-250610	(RB) FB TB	off dipper	"
11/6/25	0089-QC306-250611	(RB) FB TB	off dipper	"
11/6/25	0089-QC406-250611	RB (FB) TB	@ BØ225 laydow/storage area	"
12/6/25	0089-QC307-250612	(RB) FB TB	off dipper	"

QA blank sample register

Date/time	QA blank sample ID	Type (please circle)	Notes Rinsate taken off, field blank location, trip blank lab ID	Containers
12/6/25	0089_QC401-250612	RB (FB) TB	@ PW locations in main area PW378	2x Pfas 20ml
13/6/25	0089-QC308_250613	(RB) FB TB	Rinsate from shovel	2x pfas 20ml
13/6/25	0089_QC408_250613	RB (FB) TB	@ Nth accom PW locations	"
16/6/25	0089-QC309-250616	(RB) FB TB	Rinsate from shovel	"
16/6/25	0089-QC409-250616	RB (FB) TB	at PW405	"
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		



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→ The Power of Commitment

Quarterly Sampling Event – September 2025

PFAS OMP – HMAS Stirling

Department of Defence
11 February 2026

→ **The Power of Commitment**



Project name		Defence PFASIM LC WA					
Document title		Quarterly Sampling Event – September 2025 | PFAS OMP – HMAS Stirling					
Project number		12641234					
File name		12641234_REP-A-HMAS Stirling OMP Quarterly Sampling Event September 2025					
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S3	A (Draft)	[redacted]	[redacted]	*On file*	[redacted]	*On file*	11/02/26
S4	0	[redacted]	[redacted]	[redacted]	[redacted]	*On file*	10/07/26

GHD Pty Ltd | ABN 39 008 488 373
Contact: [redacted] Technical Director
999 Hay Street, Level 10
Perth, Western Australia 6000, Australia
T +61 8 6222 8222 | **F** +61 8 6222 8555 | **E** permail@ghd.com | **ghd.com**

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guideline
AFFF	Aqueous film-forming foam
AHD	Australian Height Datum
AS/NZS	Australian Standards/New Zealand Standards
AVCAT	Aviation Carrier Turbine
CoC	Chain of Custody
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
DO	Dissolved oxygen
DQI	Data Quality Indicator
DQO	Data Quality Objective
DWER	Department of Water and Environmental Regulation
EC	Electrical Conductivity
EPA	Environmental Protection Authority
ERA	Ecological Risk Assessment
HDPE	High-density Polyethylene
HEPA	Heads of EPA
HMAS	His Majesty's Australian Ship
LC	Lead Consultant
LCS	Laboratory control sample
LOR	Limit of reporting
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEMP	National Environmental Management Plan 3.0
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation reduction potential
PFAS	Per- and poly-fluoroalkyl substances
PFASIM	PFAS Investigation and Management
PFBS	Perfluorobutane sulfonic acid
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RPD	Relative percentage difference
SAQP	Sampling Analysis and Quality Plan

Acronym	Term
SD	Sediment
SW	Surface Water
TDS	Total Dissolved Solids
WA	Western Australia
WWTP	Wastewater Treatment Plan

List of Units

Units	Term
%	Percentage
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per Centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
m bgl	Metres below ground level
mg/kg	Milligrams per Kilogram
mm	Millimetre
mV	Millivolt
pH	Potential of Hydrogen

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1. Introduction

GHD Pty Ltd (GHD) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at His Majesty's Australian Ship (HMAS) Stirling (hereafter referred to as the 'base') in Western Australia (WA). The location of the base, the surrounding PFAS Management Area and key base features are shown in Figure 1 and Figure 2, Appendix A.

The OMP (Defence, 2019) and its associated Sampling Analysis and Quality Plan (SAQP) (GHD, 2025) outline the rationale and scope for the monitoring of concentrations and extent of PFAS in groundwater, porewater, surface water, and sediment at the base and within the Management Area. Monitoring is undertaken on a quarterly basis including March, June, September and December sampling events[1]. This Sampling Event Report documents the results of the September 2025 Sampling Event.

1.1 Objectives

The key objectives of the OMP are to evaluate:

- The spatial and temporal (including seasonal) nature and extent of PFAS impact in the environment associated with site sources of PFAS derived from legacy use of aqueous film-forming foam (AFFF);
- Changes to the Conceptual Site Model (CSM), which describes the current understanding of PFAS sources, transport pathways and receptors;
- Whether current risks to human and ecological receptors require review;
- The influence that risk management activities at the base, as outlined in the PFAS Management Area Plan (PMAP) (Defence, 2019) have had on PFAS in the environment; and
- Whether any identified changes trigger an action and/or review.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PMAP.

1.2 Purpose of this Report

This Sampling Event Report has been prepared to document the results of the September 2025 sampling event, specifically highlighting first-time detections and/or new exceedances of relevant guideline values for perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorooctanoic acid (PFOA) and perfluorobutane sulfonic acid (PFBS).

An Ongoing Monitoring Report (OMR) will be prepared following the completion of each 12-month sampling period or as otherwise agreed.

This report has been prepared with reference to the Defence *Ongoing Monitoring Program Reporting Guidance* issued in February 2024 (Defence, 2024).

[1] Sampling was not scheduled for December 2025, as per Defence instruction, see Section 6.2.

2. Scope of Work

The scope of work was completed with reference to the OMP SAQP (GHD, 2025), as follows:

– Organise fieldwork and obtain approval for base access to monitoring locations.
– Collection of samples and water quality parameters from nominated locations (refer to Section 2.1).
– Collect and analyse samples for quality assurance and quality control (QA/QC).
– Analysis of samples for PFAS at the limit of reporting (LOR) nominated in the SAQP.
– Data management of the OMP field and laboratory data in the Defence ESdat database.
– Preparation of this Sampling Event Report for the September 2025 sampling event.

2.1 Sampling Locations

2.1.1 Groundwater

The groundwater monitoring locations are presented in Table 1 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 1 OMP Groundwater Monitoring Locations

Area	Monitoring Well ID
Fire Training Area	MW109, MW112, MW500, MW120, MW121, MW123, MW124, MW125, MW126, MW127 and MW128
Demolition Ground	MW139, MW141, MW142, MW147 and MW149
WWTP	MW158, MW161, MW166, MW171, MW173, MW193, MW195D, MW195S, MW196, MW199, MW200, MW202, MW203 and MW468
Helicopter Support Facility	MW214, MW215, MW216, MW217, MW220, MW224, MW225, MW226, MW227, MW228 and MW282
Accommodation Area	MW288 and MW289
Dredged Sediments	MW268 and MW269
AVCAT Storage and Fuel Farm	MW233, MW236, MW238, MW239, MW240, MW242, MW243, MW245, MW249, MW496 and MW516
Fire Station, Flammable/Hazardous Goods and Waste Storage, Ship Sullage	MW010, MW255, MW256, MW257, MW258, MW259 and MW553

2.1.2 Porewater, surface water and sediment monitoring locations

The porewater, surface water and sediment locations are presented in Table 2 and are shown in Figure 3 to Figure 7 in Appendix A.

Table 2 OMP Porewaters, Surface Water and Sediment Monitoring Locations

Area	Surface water sampling Location ID	Sediment Sampling Location ID	Porewater Sampling Location ID
Fire Training Areas	SW130, SW132, SW134	SD335, SD340, SD341, SD362, SD363, SD364	PW335, PW340, PW341, PW362, PW363, PW364
Demolition Ground	SW150, SW152, SW154, SW156	SD329, SD330, SD331, SD356, SD357, SD358	PW329, PW330, PW331, PW356, PW357, PW358
WWTP	SW305, SW353, SW370, SW371, SW372, SW373, SW382, SW383, SW384	SD304, SD345, SD350, SD351, SD352, SD367, SD368, SD369, SD380, SD381, SD401	PW304, PW345, PW350, PW351, PW352, PW367, PW368, PW369, PW380, PW381, PW401

Area	Surface water sampling Location ID	Sediment Sampling Location ID	Porewater Sampling Location ID
Helicopter Support Facility	SW309, SW310, SW311, SW406, SW408, SW410, SW412, SW414, SW416	SD306, SD307, SD308, SD314, SD315, SD316, SD405, SD407, SD409, SD411, SD413, SD415	PW306, PW307, PW308, PW314, PW315, PW316, PW405, PW407, PW409, PW411, PW413, PW415
Accommodation Area	-	SD346	PW346
Dredged Sediments	SW317, SW318, SW319	SD374, SD375, SD378	PW374, PW375, PW378

2.2 SAQP Deviations

The September 2025 sampling event was completed with reference to the OMP SAQP (GHD, 2025), GHD's health and safety protocols and GHD's standard operating procedures for field work, which have been developed in accordance with WA contaminated land guidance. Material deviations from the OMP SAQP are summarised in Table 3.

Table 3 Summary of Deviations from the OMP SAQP

Location	Deviation	Comments
MW166	Sampled using a bailer	Attempt to sample MW166 (WWTP area) initially occurred on 18 September 2026. Insufficient water was identified in the water column to fill the HydraSleeve® so a top weight was applied to compress the HydraSleeve® (per the methodology outlined in Section 3.1.1). The top-weighted HydraSleeve® was recovered on 23 September 2025 though still contained insufficient water to allow collection of a sample and measurement of field parameters. As such, a bailer was used to recover the required volume of water as the depth to water (11.375 m btoc) is beyond the capability of the low flow peristaltic pump to be used. All other aspects of the sampling methodology were as outlined in Section 3.1.1. **Minimal impact** –Recorded PFAS concentrations at the location were consistent with historical data.
MW158, MW193 and MW195S (WWTP)	Not sampled	MW158 was unable to be located due to the presence of dense vegetation (weeds) growing in the area at the time of the sampling event. MW195S was blocked at the time of the sampling event and was therefore unable to be sampled. Due to field error, monitoring well MW079 was sampled in place of MW193. The data obtained from MW079 has been presented in this report. **Minimal impact** – Hydraulically down-gradient groundwater water locations (i.e., closer to the receiving environment) including MW196, MW199 and MW468 were able to be sampled to provide an assessment of risks to the marine environment, which is the primary sensitive receptor for the base. Base-wide groundwater contours were able to be inferred based on the wider monitoring network. The forthcoming OMP Revision will review the value of the monitoring well in the context of the OMP objectives and make a recommendation for repair, re-installation or otherwise. MW079 is located directly adjacent to MW193 on the southern side of the WWTP, with both wells screened within the same interval (10.5-13.5 mbgl). Concentrations reported in MW079 in September 2025, were generally consistent with historical concentrations for MW193 and within a similar order of magnitude. Thus, MW079 is considered representative of conditions monitored at MW193 and sampling of this well is not considered to impact any conclusions drawn during this monitoring period.
MW249	Not sampled	MW249 (AVCAT Storage and Fuel Farm area) was unable to be located during the sampling event and was suspected to have been beneath a soil stockpile that was present at the well location. **Moderate impact** –There are no monitoring locations downgradient of MW249 to provide an up-to-date assessment of risks to the marine environment, which is the primary sensitive receptor for the base. PFAS concentrations at the monitoring well have, however, been consistent since monitoring commenced in 2017 through to the previous OMP sampling event in June 2025. Access to the location will be sought during future sampling events, with support from base personnel where possible.

Location	Deviation	Comments
Multiple locations	Total dissolved solids (TDS) not recorded	Due to field error, TDS was not recorded when conducting surface water sampling at all locations apart from those associated with the Demolition Ground. **Minimal impact –** Salinity at the surface water monitoring locations, which represent the marine environment of the Cockburn Sound and Indian Ocean, is well understood from historical data and can also be assessed based on electrical conductivity, which was recorded during the sampling event.

3. Methodology

3.1 Sampling Methodology

The methodology for the September 2025 sampling event was completed with reference to the OMP SAQP (GHD, 2025) as outlined in the following sections.

3.1.1 Groundwater sampling

The groundwater sampling methodology is outlined in Table 4.

Table 4 Groundwater Monitoring Wells – Sampling Method

Activity	Details
Well gauging	Monitoring wells were first gauged to allow subsequent correction of groundwater levels relative to Australian Height Datum (AHD) prior to groundwater sample collection. All depth measurements referenced the top of casing (TOC) of the monitoring well as an established datum.
Groundwater physicochemical parameters	Groundwater physiochemical parameters were recorded via a water quality meter from HydraSleeves® or purged water via peristaltic pump. The following parameters were recorded: – pH. – electrical conductivity (EC). – oxidation reduction potential (ORP). – Dissolved oxygen (DO). – Temperature. – Total Dissolved Solids (TDS). The water quality meter was calibrated by the equipment supplier and daily readings of reference solutions (“bump tests”) were completed to optimise the accuracy of the measurements taken (see Appendix D). General observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens) were also recorded.
Deployment and retrieval of HydraSleeves®	In compliance with section 18 of the Heads of EPA National Environmental Management Plan 3.0 (HEPA NEMP), groundwater samples were collected using bore-dedicated polypropylene HydraSleeves®. The HydraSleeves® were installed and left in place for a minimum of 24 hours prior to retrieving for sample collection. Where monitoring well construction details were available, the HydraSleeves® were positioned to target the approximate mid-section of the water column beneath the screened interval. Where construction details were not available, the HydraSleeves® were placed approximately 1 m from the base of the monitoring well (where sufficient depth of water was present within the well column). Samples were collected via continuous pull method at a rate allowing the water to pass through the check value into the sample sleeve. Samples were discharged immediately (to minimise changes in chemistry) via discharge tube. Following sampling, new HydraSleeves® were deployed in preparation for the next OMP monitoring event using the same string for consistency (same depth of sampling i.e. within screen depth).
Alternative sampling methodology (low flow micro-purge)	In the event the water column wasn’t sufficient to fill the HydraSleeve®, the HydraSleeve® was deployed with a top weight to compress the HydraSleeve® and left in wells for a minimum of 24 hours to allow stabilisation. During the September 2025 sampling event, this approach was applied at MW161. If the HydraSleeve® was then retrieved with no or insufficient sample volume, low flow sampling occurred via a low flow micro-purge pump using the following methodology: – Post-gauging, each monitoring well was purged using a low flow micro-purge pump fitted with bore-dedicated inert silicone and High-density Polyethylene (HDPE) tubing. The upper end of the tubing was connected to the flow cell of a water quality meter positioned to prevent entrapment of oxygen. – The pump intake was placed approximately 0.5 m below the top of screen (or at least 0.5 m below the top of the water column) to ensure collection of samples representative of groundwater quality beneath the base. – Measurement of water quality parameters was undertaken immediately after the flow cell was full and continued thereafter at two to five-minute intervals during the purging process.

Activity	Details
	– Purging was undertaken until stabilisation of field parameters was achieved after which the well was subsequently sampled. Parameters were considered stable when they are within the following range (where practicable within the time constraints of the program): • Temperature: +/- 0.2 °C* • pH: +/- 0.05 • EC: +/- 3% • DO: +/- 10% • ORP: +/- 10mV – Representative groundwater samples were collected directly from the HDPE tubing into laboratory supplied sample containers. During the September 2025 sampling event, the alternative sampling methodology was required at monitoring well MW236 and MW239. **Note: The OMP SAQP (GHD, 2025) erroneously states variation in temperature should be +/- 0.02 °C rather than +/- 0.2 °C*
Field records	Field records included the following information: – Gauging data – Sampling time and date. – Weather conditions. – Sample collection method. Where a HydraSleeve® is used for sample collection, the target interval depth was recorded. – Stabilised field parameters. – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. – Calibration and daily bump test records. – Well gauging records. All sample documentation including field notes, reporting records, Chain of Custody (CoC) and equipment calibration certificates and procedures were retained within project files.
Decontamination procedure	Dedicated HydraSleeves® or HDPE tubing (in the event that a HydraSleeve® was not used) was used at each groundwater bore, thus removing the need for decontamination of these items. Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.
Sample identification, preservation transport and holding times	Each sample bottle was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were collected directly in laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under CoC documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998).

3.1.2 Porewater sampling methodology

The methodology for porewater sampling is outlined in Table 5.

Table 5 Porewater Sampling Methodology

Item	Details
Porewater sample collection	Sampling was conducted using a reusable stainless-steel piezometer which has a screened zone consisting of a series of very fine interlaced machined slots to allow porewater to enter the sampler. Seepage sampling occurred during outdoing tides, as far as practicable within the temporal constraints of the tidal cycle at the time of the event.

Item	Details
	The sampling end of the piezometer was inserted into the surficial marine sediments to approximately 0.5 m below the surface. Once the target sample depth was reached, porewater was collected using a peristaltic pump fitted with bore-dedicated silicone and HDPE tubing into laboratory supplied bottles. Field parameters were recorded (pH, EC, TDS, ORP, DO and temperature). Purging prior to sampling was not considered necessary due to the highly transmissive nature of the intertidal zone sediments. Field EC and/or TDS readings were used to assess whether the porewater sample is representative of discharging groundwater and not purely seawater.
Field records	Field records included the following information: – Sampling time and date. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g., turbidity, colour etc.) or obvious indicators of contamination (e.g., sheens). – Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. All sample documentation including field notes, reporting records, COC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. Tubing was replaced at each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.1.3 Surface water sampling methodology

The methodology for the surface water monitoring is detailed in Table 6.

Table 6 Surface Water Monitoring

Item	Details
Field parameters	Surface water physiochemical parameters (i.e. pH, EC, ORP, DO, and temperature) were recorded at the time of sampling using a pre-calibrated water quality meter. Field observations such as odours or sheen presence were also recorded on field sampling sheets.
Sampling method	Where the embankment of the water body was stable and the water body could be safely accessed, surface water samples were collected by hand, directly into the laboratory supplied sample containers using a 'grab' (manual) sample method. Where depth permitted, the sample container was positioned at least 10 cm below the surface water level and above the sediment bed and oriented with the capped opening facing downwards to avoid the collection of surface films. Once in position, the container cap was removed to allow sample collection. Where sampling points cannot be safely accessed, surface water samples were collected using a long-handled sampler and decanted into the laboratory supplied sample containers. Samples were collected with reference to Australian/New Zealand Standards (AS/NZS 5667.1:1998) Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.
Sample collection	Water samples were placed directly into appropriately labelled, laboratory supplied sample bottles and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions), then double rinsed with laboratory supplied rinsate water before the sample collection.

Item	Details
Sample identification, preservation, transport and holding times.	Each sample container was pre-labelled by the laboratory with a unique barcode which was scanned into a mobile application to generate the CoC. Samples were contained in laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation. Sample containers, preservation procedures, sample storage requirements and holding times were undertaken in accordance with those recommended by Standards Australia (AS/NZS 5667.1:1998 as appropriate).
Field records	Field records included the following information: – Sampling time, date and name of the sampler. – Weather conditions. – Sample collection method. – Field parameters – Observations regarding water quality (e.g. turbidity, colour etc.) or obvious indicators of contamination (e.g. sheens). – Depth of water body, flow rate and sample depth. – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. – Calibration records. All sample documentation including field notes, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.

3.1.4 Sediment sampling methodology

The methodology for sediment sampling is detailed in Table 7.

Table 7 Sediment Investigation Methodology

Item	Details
Sample collection	Sediment samples were collected at the sediment/water interface using hand tools (e.g. trowel, hand auger, PVC pipe etc.) with samples placed directly into appropriately labelled, laboratory supplied sample containers and packed in chilled containers for delivery to the laboratory under Chain of Custody documentation. At each sampling location, the sediment sample will be visually assessed and observations (including physical description) recorded on field data sheets.
Field records	Field records included the following information: – Sampling time, date and name of the sampler. – Sample description. – Weather conditions. – Sample collection method. – Observations regarding sediment quality (e.g., colour, grain size etc.) or obvious indicators of contamination (e.g., staining). – Sampling equipment decontamination procedures where non-disposable sampling equipment was utilised. All sample documentation including field notebooks, reporting records, CoC and equipment calibration certificates and procedures were retained within project files.
Decontamination	Single use nitrile gloves were worn during sampling and appropriately disposed of between each sampling location. All re-usable sampling equipment was thoroughly washed using PFAS and phosphate-free detergent (mixed per supplier instructions) then double rinsed with laboratory-supplied rinsate water before the sample collection.

3.2 Quality Assurance and Quality Control

Quality assurance (QA) involves all the actions, procedures, checks and decisions, undertaken to ensure the representativeness and integrity of samples and accuracy and reliability of analytical results (NEPM, 2013). Quality control (QC) involves protocols to monitor and measure the effectiveness of QA procedures.

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (GHD, 2025). A review of the field and laboratory QA/QC performance from the investigation is presented in the QA/QC data validation report, Appendix B. Key findings of the data validation report include:

– The majority of the calculated relative percentage difference (RPD) in concentrations for each duplicate pair, as presented in the tables in Appendix B were within acceptable limits. In most cases, RPD values greater than the acceptance criterion of 30% are considered reflective of the proximity of the reported concentrations to the LOR (i.e., less than 10 times the LOR) or are associated with concentrations that are within the same order of magnitude. On this basis, the RPDs greater than 30% are considered to have minimal impact on the data quality.
– Field blank analytical results were less than the LOR in all cases.
– Rinsate blank analytical results were less than the LOR in all cases.

Overall, the QA/QC assessment concluded that the collected data is considered appropriate for the work undertaken and are considered usable for the purpose of this assessment.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements (Defence, 2021).

4. Guideline Values

A summary of the current PFAS guideline values for groundwater, porewater and surface water considered relevant to the base is presented as Table 8. The guideline values are largely based upon:

– The PFAS NEMP (HEPA, 2025) which presents a consolidated set of health- and ecology-based Australian PFAS assessment levels for soil and water that are derived from various guidelines and publications. It is noted that the aquatic ecosystems guideline value for PFOS is lower than the standard LOR that was applied at the porewater and surface water monitoring locations. This is not considered limiting upon the groundwater dataset however, noting that groundwater is not abstracted on the base for potable use (GHD, 2025).
– The National Health and Medical Research Council (NHMRC) Australian Drinking Water Guidelines (ADWGs) for PFAS that were published on 25 June 2025 (NHMRC, 2025). It is noted that the ADWG value for PFOS is less than the standard PFAS LOR that was applied at the groundwater monitoring locations.

It is noted that there is currently no Australian regulatory endorsed screening criteria for risk posed to ecology or human health by PFAS in sediment.

Table 8 Relevant PFAS Assessment Guideline Values

Exposure scenario	Source	Assessment guideline value (µg/L)				
		PFOS	PFHxS	PFOS+ PFHxS	PFOA	PFBS
Groundwater						
Health: potable use of groundwater	NHMRC (2025)	0.008	0.03	-	0.2	1
Porewater and surface water						
Health: Recreational water use	PFAS NEMP	2	2	2	10	-
Ecology: aquatic ecosystems (99% species protection)	PFAS NEMP	0.00023	-	-	19	-

It is important to note that an Ecological Risk Assessment (ERA) (RPS, 2018b) has been completed for the base to assess the potential risks to the environment associated with presence of PFAS within the Management Area. The ERA incorporated multiple line of evidence, including site-specific exposure point concentrations (EPCs), measured PFAS concentrations in biota and food-web modelling. While the OMP evaluates PFAS concentration data with reference to the ecology-based screening criteria identified in Table 8, these criteria are intended to provide context to the magnitude of the reported concentrations and identify first-time detections, new exceedances and other notable changes relative to previous monitoring events. Consideration of whether ecological risks have materially changed remains reliant on the broader weight-of-evidence assessment established by the ERA and will be further evaluated in the Ongoing Monitoring Report (OMR).

5. Field Observations and Results

5.1 General Observations

The sampling event was completed over 10 days between 9 and 23 September 2025 (comprising 9 to 12 September, 15 to 19 September and 23 September). The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the sampling event are summarised in Table 9.

Table 9 General Observations

Items	Observations
Weather Conditions	The weather during the sampling event was generally described as fine, with maximum temperatures of between 14.8°C (9 September) and 25.9°C (23 September) and some rainfall. 26 mm of rainfall was recorded between 15 and 19 September. The greatest volume of rainfall was 14 mm on 17 September 2025. Information obtained from Garden Island HSF (Station ID 009256) (Bureau of Meteorology, 2025).
Estate Management Works, Training Activities and/or Construction Works.	Construction of a new building was underway adjacent to the west side of the AVCAT Storage Facility source area. GHD understands these works were unrelated to the PMAP.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the September 2025 quarterly sampling event are summarised in Table 10. Field notes are presented in Appendix F.

Table 10 Summary of Field Observations and Measurements

Item	Description
Access and sample collection	Most sampling locations were accessible and able to be sampled, apart from those identified in Table 3. Consistent with the June 2025 sampling event, the measured well depth in some monitoring wells (i.e., MW121, MW142, MW166, MW193, MW195D, MW282, MW500, MW553), when compared to the constructed well depth, suggests sediment may have accumulated within the monitoring wells (refer to Table C1, Appendix C). The wells were still able to be sampled.
Water and sediment observations	Groundwater was predominantly clear, colourless to pale yellow, brown or white with varying turbidity, no odour or sheen. A hydrocarbon odour was noted at MW516 and MW553. Porewater was predominantly clear and colourless with low sediment load and no odour or sheen. Surface water was predominantly clear and colourless with low sediment load and no sheen or odour. High sediment load and the presence of seaweed was noted at some locations including SW130, SW305 and SW372. Sediment was mostly moist to saturated, light brown to grey, fine to medium grained beach sand. Shell fragments and seaweed was noted at various locations.
Groundwater flow direction	The calculated groundwater elevations (m AHD) are presented in Table C1 in Appendix C. Groundwater elevations across the base at the time of the sampling event ranged from -0.204 (MW109) to 2.68 m AHD (MW282). The negative groundwater elevation at MW109 is potentially a field error in the recording of the depth to water as elevations have historically ranged from 0.116 – 0.59 m AHD as a result this data point was removed from the groundwater contours shown in Figure 3. Inferred groundwater contours are presented in Figure 3 to Figure 7 in Appendix A. **APPENDIX A** Groundwater flow direction across the base at the time of the sampling event is summarised below. Generally, groundwater flow was towards the coast, with inward flow and mounding in some areas, likely as a result of tidal influence, which is consistent with previous findings. **Fire Training Area** Generally easterly towards the Cockburn Sound, consistent with previous gauging rounds. **Demolition Ground**

Item	Description
	West south-westerly (i.e., inward) groundwater flow, possibly associated with tidal influence from the adjoining Cockburn Sound, consistent with previous gauging rounds. **Wastewater Treatment Plant** Generally easterly flow towards the Cockburn Sound, consistent with previous gauging rounds. **Helicopter Support Facility** Generally westerly towards the Cockburn Sound, consistent with previous gauging rounds. An element of radial flow was evident in the western portion of the area. **Main base area** Generally southerly towards the Cockburn Sound, consistent with previous gauging rounds.
Physicochemical parameters	Water physicochemical parameters are presented in Tables C1, C2 and C3 in Appendix C and are summarised below: **Groundwater** – Temperature ranged from 14.1 ˚C (MW200) to 23.4 ˚C (MW139). – pH ranged from 6.44 (MW142) to 8.38 (MW257) indicating slightly acidic to alkaline conditions. – EC ranged from 425.6µS/cm (MW166) to 42,289µS/cm (MW142) indicating fresh to saline conditions. – TDS ranged from 396.5mg/L (MW139) to 27,482mg/L (MW142) indicating fresh to saline conditions. – DO ranged from 0.6mg/L (MW149) to 9.95mg/L (MW496) indicating poor to well oxygenated conditions. – Redox ranged from -230.2mV (MW141) to 51mV (MW171) and indicated predominantly reducing conditions. **Porewater** – Temperature ranged from 13.6˚C (PW340) to 18.7˚C (PW330). – pH ranged from 7.05 (PW367) to 8.05 (PW308) indicating circum-neutral to alkaline conditions. – EC ranged from 10,486µS/cm (PW346) to 53,782µS/cm (PW330) indicating brackish to saline conditions. – TDS ranged from 6,823mg/L (PW346) to 35,609mg/L (PW380) indicating saline conditions. – DO ranged from 0.08mg/L (PW331) to 8.56mg/L (PW335) indicating very low to well oxygenated conditions. – Redox ranged from -317.2mV (PW331) to 75.1mV (PW329) and indicated predominantly reducing conditions. **Surface water** – Temperature ranged from 14.8 ˚C (SW406) to 23.4˚C (SW152). – pH ranged from 7.9 (SW371) to 8.19 (SW134) indicating alkaline conditions. – EC ranged from 34,005µS/cm (SW416) to 53,489µS/cm (SW310) indicating saline conditions. – TDS (where recorded) ranged from 34,580mg/L (SW150) to 53,443mg/L (SW152) indicating saline conditions. – DO ranged from 4.72mg/L (SW310) to 21.03mg/L (SW383) indicating moderately to well oxygenated conditions. – Redox ranged from -182.7mV (SW311) to 76.2mV (SW154) indicating both reducing and oxidising conditions.

5.3 Summary of Analytical Results

The PFAS analytical results for groundwater, surface water, sediment and porewater from this sampling event are presented in Table C4 to C7 in Appendix C.

5.3.1 Groundwater

60 primary groundwater samples were analysed for PFAS, with:

– 24 samples reporting **PFBS** concentrations above the LOR. Two of these were above the ADWG value (1µg/L), namely MW171 (1.14µg/L) and MW256 (1.87µg/L).

– 37 samples reporting **PFOS** concentrations above the LOR. All of these reported concentrations were above the ADWG value (0.008µg/L), noting that the LOR that was applied is greater than the ADWG value. 23 samples reported PFOS concentrations below the LOR (i.e., <0.01) and it therefore cannot be determined whether PFOS concentrations in these samples were above or below the ADWG value.
– 43 samples reporting **PFHxS** concentrations above the LOR. Of these, 37 samples reported concentrations greater than the ADWG value (0.03µg/L).
– 25 samples reporting **PFOA** concentrations above the LOR. Of these, 11 samples reported concentrations greater than the ADWG value (0.2µg/L).

A summary of groundwater locations where concentrations were greater than those previously reported (i.e., first-time detections or new maximums) is presented as Table 11.

Table 11 Deviations from Historical Dataset – Groundwater Analytical Results

Item	Sample location	PFBS (µg/L)		PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Sept. 2025	Previous Max.	Sept. 2025	Previous Max.	Sept. 2025	Previous Max.	Sept. 2025	Previous Max.
First-time detection	None	No first-time detections							
New historical maximum	MW120	No new maximum		No new maximum		2.32	2.13	No new maximum	
	MW127	No new maximum		0.03	0.02	No new maximum		0.02	0.007*
First-time guideline exceedance	MW127	No first-time exceedance		No first-time exceedance		No first-time exceedance		0.02	0.007*

*Previous maximum recorded during the DSI (RPS, 2018a) when a lower, non-standard LOR was applied (0.001 µg/L). Concentrations recorded during implementation of the OMP have been below the standard LOR (i.e., <0.01µg/L).

5.3.2 Porewater

In summary, 39 primary porewater samples were analysed for PFAS, with:

– Four samples (PW346, PW375, PW367 and PW369) reporting a **PFOS** concentration above the LOR. All of these reported concentrations that exceeded the aquatic ecosystems guideline value (0.00023µg/L), noting that the LOR that was applied is greater than the aquatic ecosystems value. The remaining 35 samples reported PFOS concentrations below the LOR (i.e., <0.01µg/L) and it therefore cannot be determined whether PFOS concentrations in these samples were above or below the aquatic ecosystems value. All reported concentrations were less than the recreational guideline value (2µg/L).
– Two samples (PW346 and PW368) reporting a **PFHxS** concentration above the LOR. The concentrations were less than the recreational guideline value (2µg/L).
– Five samples reporting a **PFOS+PFHxS** concentration above the LOR. All reported concentrations were less than the recreational guideline value (2µg/L).
– All samples reporting **PFOA** concentrations below the LOR and therefore below the aquatic ecosystems guideline value (19µg/L) and the recreational guideline value (10µg/L).

There were no first-time detections or new maximum PFAS concentrations in porewater samples.

5.3.3 Surface water

28 primary surface water samples were analysed for PFAS, with:

– Four samples (SW305, SW371, SW372 and SW373, associated with the WWTP) reporting a **PFOS** concentration marginally above the LOR (i.e., 0.01 – 0.02µg/L). All of these reported concentrations that exceeded the aquatic ecosystems guideline value (0.00023µg/L), noting that the LOR that was applied is greater than the aquatic ecosystems value. The remaining 24 samples reported PFOS concentrations below the LOR (i.e., <0.01µg/L) and it therefore cannot be determined whether PFOS concentrations in these samples were above or below the aquatic ecosystems value. All reported concentrations were less than the recreational guideline value (2µg/L).

– All samples reporting **PFHxS** and **PFOA** concentrations below the LOR and therefore below the aquatic ecosystems guideline value (19µg/L for PFOA) and the recreational guideline value (2µg/L for PFHxS and 10µg/L for PFOA).

There were no first-time detections or new maximum PFAS concentrations in surface water samples.

5.3.4 Sediment

39 primary sediment samples were analysed for PFAS compounds, with:

– No samples reporting a **PFBS** concentration above the LOR.
– Two samples reporting a **PFOS** concentration above the LOR. This included SD346, associated with the accommodation area, with a concentration of 0.0003 mg/kg and SD345, associated with the WWTP, with a concentration of 0.0002 mg/kg.
– Two samples reporting a **PFHxS+PFOS** concentration above the LOR, with concentrations equal to the PFOS concentrations outlined above (i.e., all samples comprised PFOS only).
– No samples reporting a **PFHxS** concentration above the LOR.
– No samples reporting a **PFOA** concentration above the LOR.

There were no first-time detections or new maximum PFAS concentrations in sediment samples.

6. Summary

6.1 Summary of Monitoring Event

The findings and recommended actions from the September 2025 sampling event are summarised in Table 12.

Table 12 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	All locations were accessible apart from MW158 (WWTP area) and MW249 (AVCAT Storage and Fuel Farm area), as described in Section 2.2.	Access to these locations will be sought during future sampling events, with support from base personnel where possible.
Location unable to be sampled, blocked or dry	With reference to Section 2.2, MW195S (WWTP) was blocked and unable to be sampled and MW193 (WWTP) was not sampled due to field error. As noted in Section 5.2, the measured well depth in some monitoring wells suggests sediment may have accumulated within the monitoring wells. The wells were still able to be sampled and the recorded PFAS concentrations were within the historical range.	In both cases, hydraulically down-gradient groundwater monitoring locations were able to be sampled to provide an assessment of risks to the marine environment, which is the primary sensitive receptor for the base. Replacement/repair of blocked well MW195S and wells with accumulated sediment is not recommended as a matter of priority at this time. The forthcoming OMP Revision will review the value of the monitoring well in the context of the OMP objectives and make a recommendation for repair, re-installation or otherwise.
Analytical results	60 groundwater samples, 39 porewater samples, 28 surface water samples and 39 sediment samples were analysed. Concentrations recorded were generally consistent with historical data.	Locations will be sampled again during the next OMP sampling event. Data will be evaluated further within the context of the OMP objectives (refer to Section 1.1) as part of the forthcoming OMR. The requirement to apply a non-standard LOR at selected monitoring locations to inform a suitable risk assessment will be considered as part of the OMR and forthcoming OMP Revision process.
First-time detections of PFBS, PFHxS, PFOA and/or PFOS	No first-time detections were identified during the September 2025 sampling event.	
New historical maximum concentrations	New historical maximum concentrations were reported at groundwater monitoring locations MW120 and MW127. In both cases, the new maximum concentrations were within one order of magnitude of the previous maximum concentrations.	
New exceedance of human health guideline value	A first-time exceedance of the ADWG value for PFOS (0.008µg/L) was identified at groundwater monitoring location MW127. The recorded concentration (0.02 µg/L) is within one order of magnitude of the previous maximum (0.007 µg/L) though is greater than the ADWG value that was revised in June 2025. GHD understands that groundwater is not abstracted on the base for potable or non-potable use. Potable water for Garden Island is supplied from the Rockingham town water supply (GHD, 2025).	
New exceedance of adopted guideline values?	No surface water or porewater locations reported new exceedances of the adopted ecological guideline values for PFOS and/or PFOA. It is noted that the standard LOR that was applied for PFOS is greater than the aquatic ecosystems PFOS value and it therefore cannot be determined whether PFOS concentrations in the surface water and porewater samples were above or below the aquatic ecosystems value. Interpretation of the significance of PFAS concentrations in ecological receptor environments is undertaken with reference to the ERA (RPS, 2018b) and will be considered further in the OMR.	

6.2 Upcoming Sampling Events

The next sampling event is scheduled for March 2026 due to the Department of Defence suspending the December 2025 Sampling Event.

6.3 Upcoming Ongoing Monitoring Report

The next OMR is scheduled to be delivered in Q2 2026, covering data collected from October 2023 to September 2025.

7. References

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8. Limitations

This report has been prepared by GHD for Department of Defence and may only be used and relied on by Department of Defence for the purpose agreed between GHD and Department of Defence as set out in Section 1.2 of this report.

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The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

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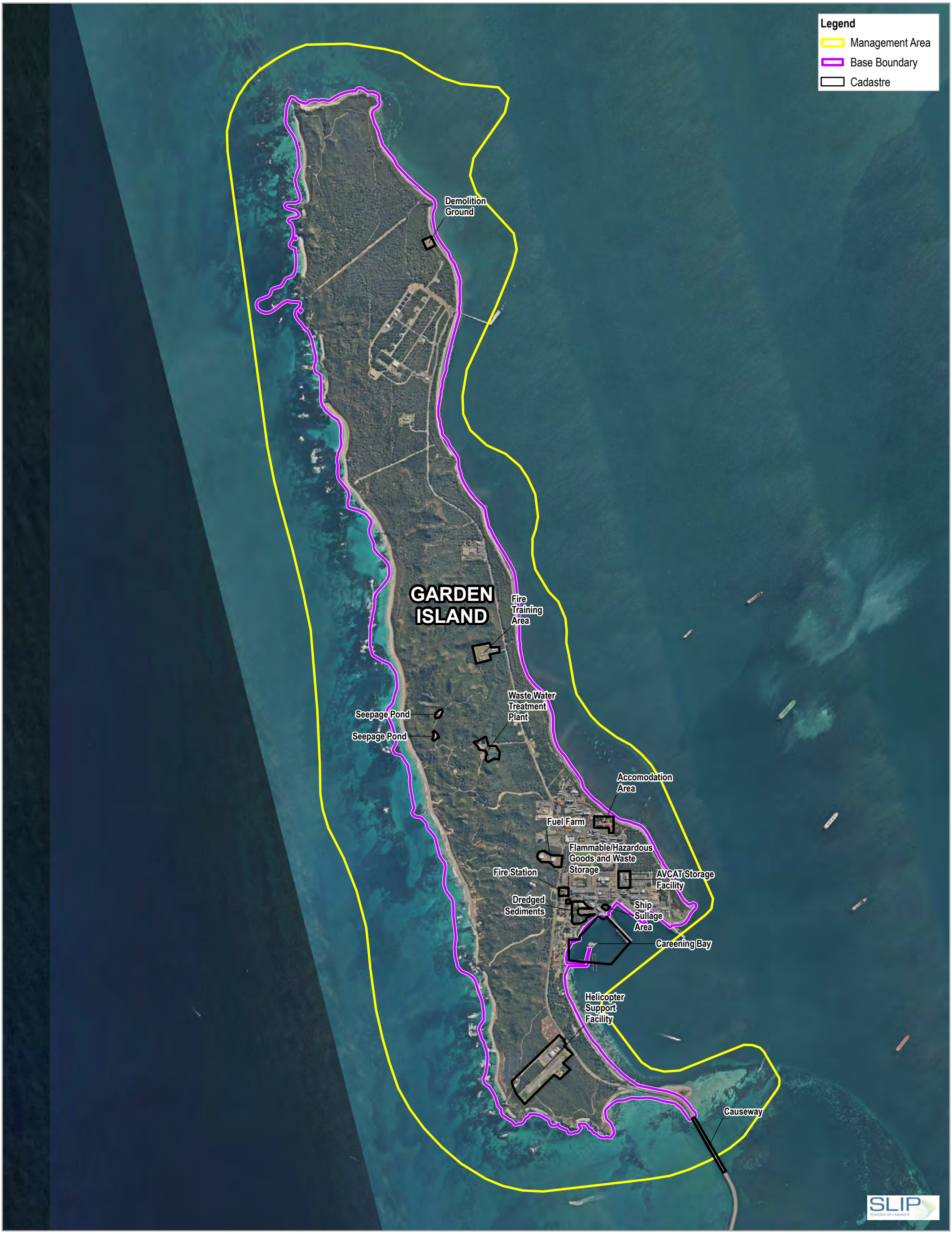
Appendices

Appendix A

Figures



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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

Base Layout and Management Area

Project No. **12641234**
Revision No. **0**
Date **03/12/2025**

FIGURE 1

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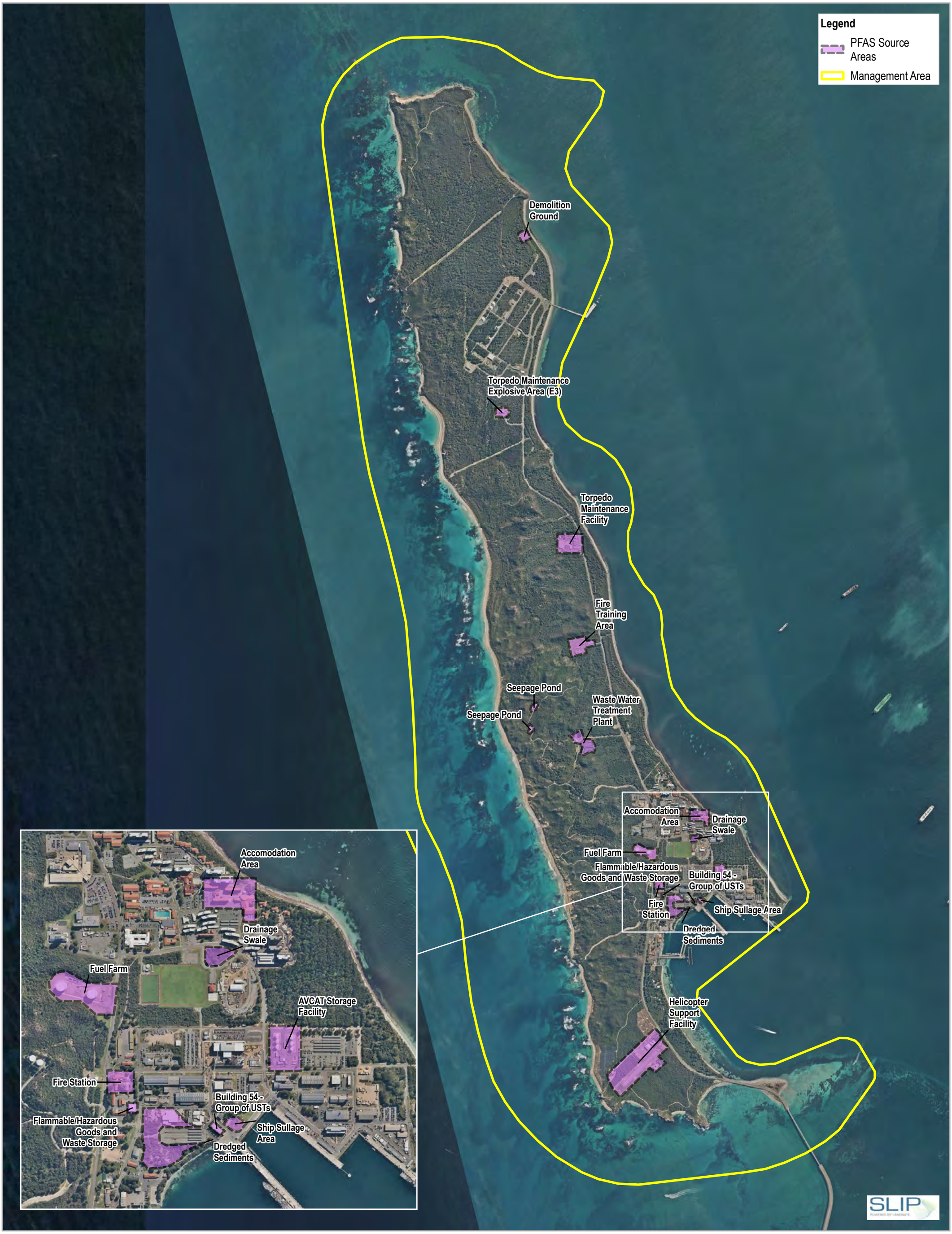

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

PFAS Source Areas

Project No. **12641234**
Revision No. **B**
Date **08/07/2026**

FIGURE 2

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

Monitoring Locations – Fire Training Area

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 3

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

Monitoring Locations – Demolition Ground

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 4

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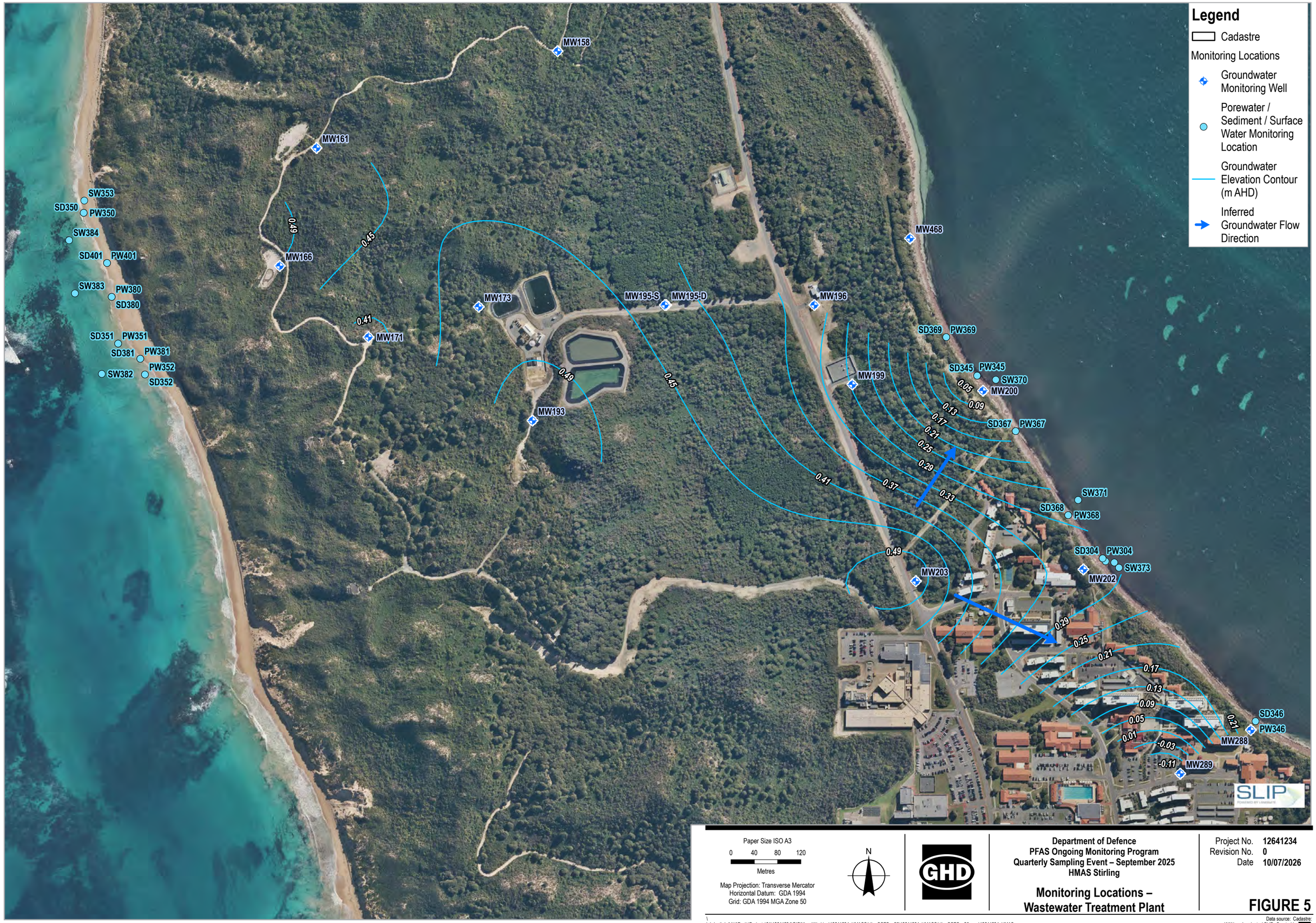

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

Monitoring Locations – Wastewater Treatment Plant

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 5

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Grid: GDA 1994 MGA Zone 50

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

Monitoring Locations – Helicopter Support Facility

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 6

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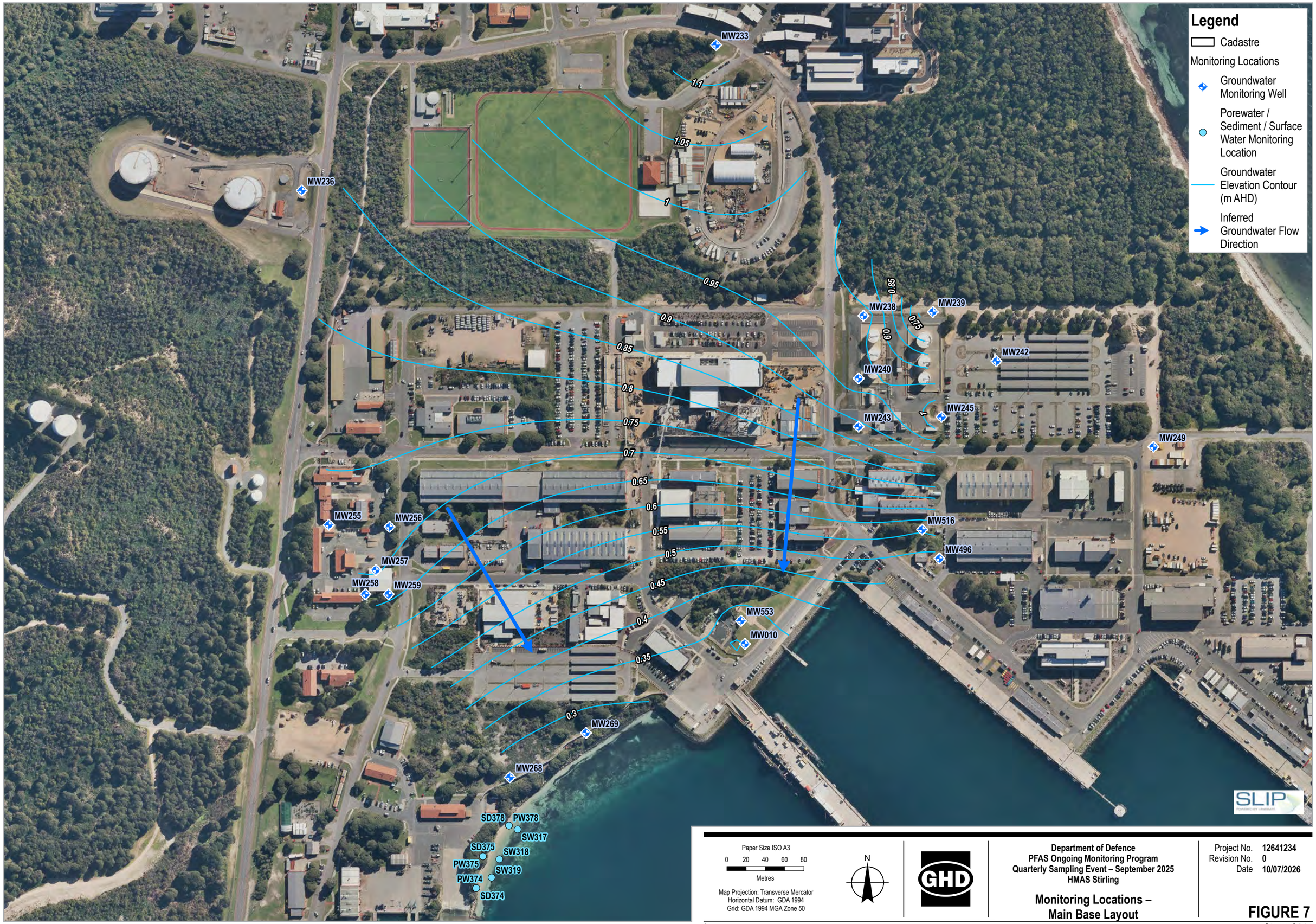

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GHD

Department of Defence
PFAS Ongoing Monitoring Program
Quarterly Sampling Event – September 2025
HMAS Stirling

Monitoring Locations – Main Base Layout

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 7

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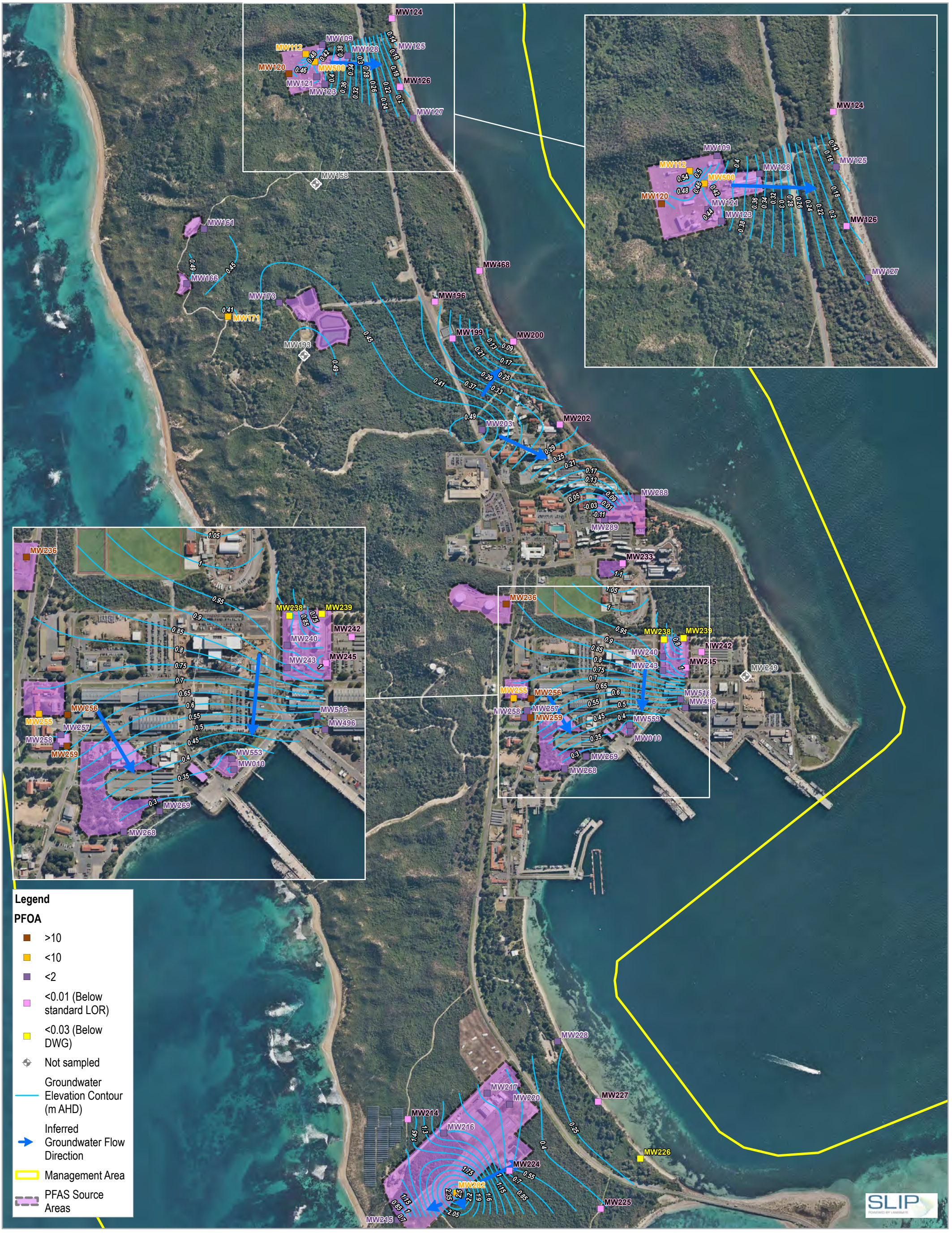
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MW215
MW123
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PFOA
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Groundwater Elevation Contour (m AHD)
Inferred Groundwater Flow Direction
Management Area
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GHD
Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling
Groundwater PFHxS Concentrations - September 2025
Project No. 12641234
Revision No. 0
Date 10/07/2026
FIGURE 8
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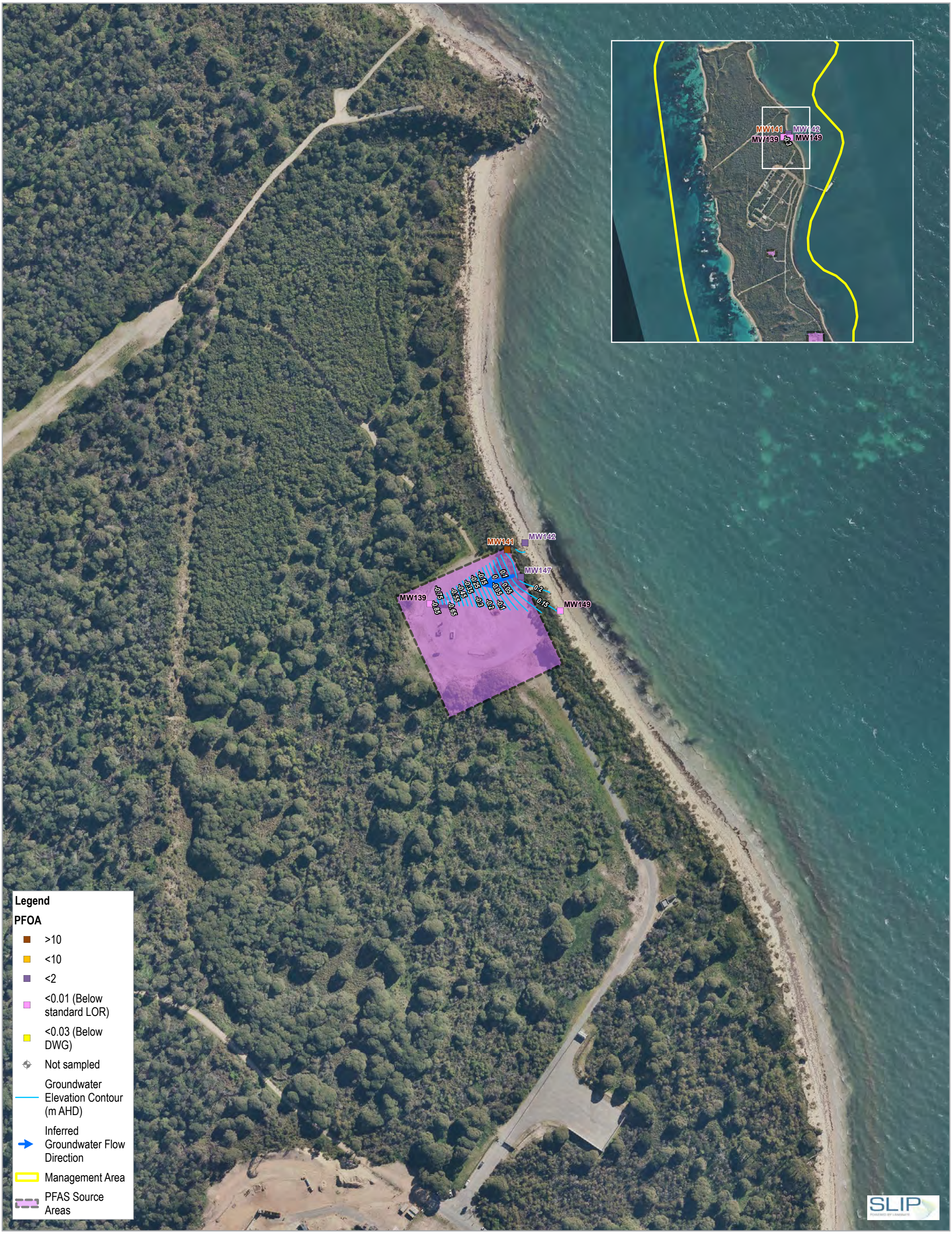

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GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFHxS Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 8a

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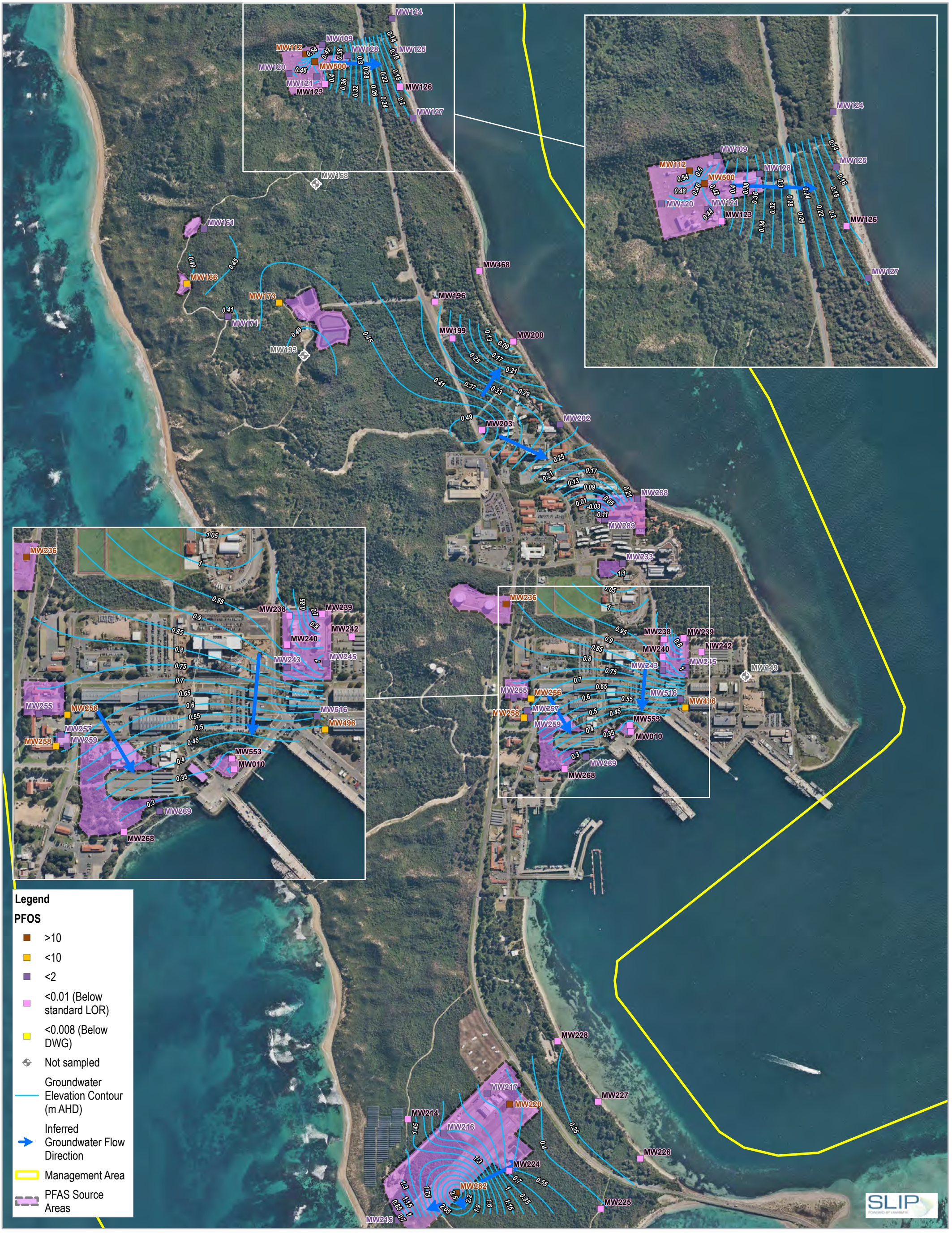

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Metres

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Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Groundwater PFOS Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 9

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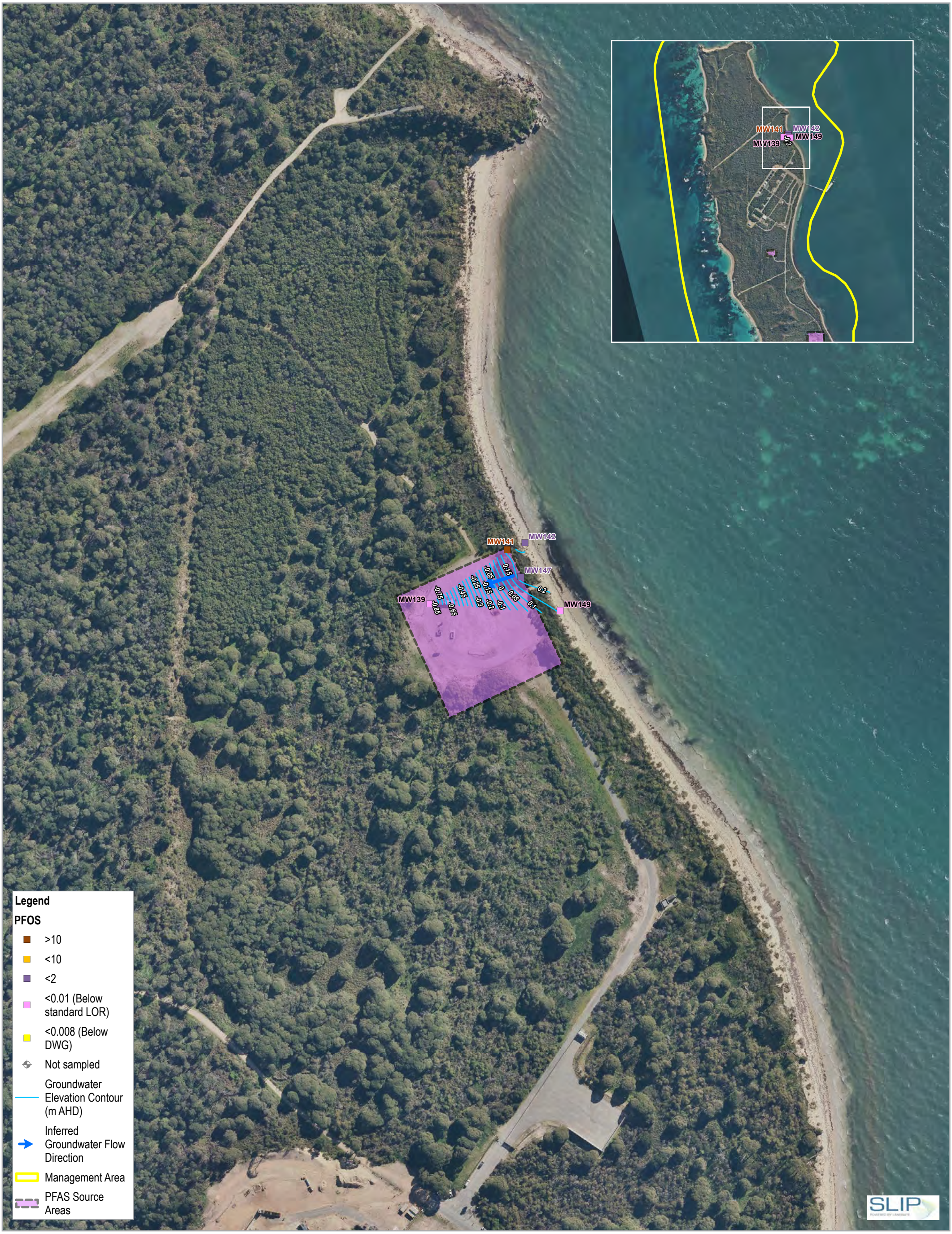
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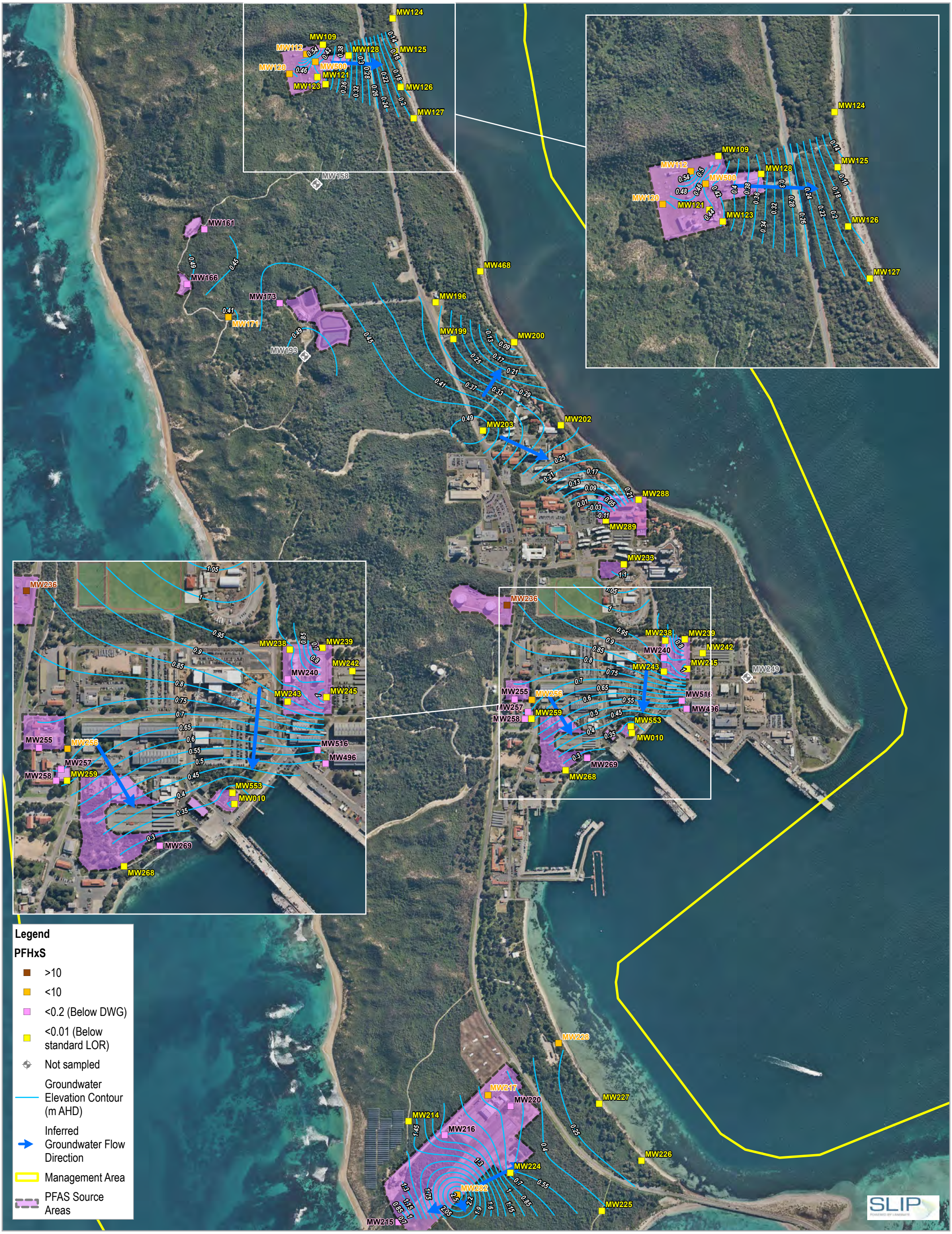
-0.45
-0.3
-0.25
-0.2
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2
Legend
PFOS
>10
<10
<2
<0.01 (Below standard LOR)
<0.008 (Below DWG)
Not sampled
Groundwater Elevation Contour (m AHD)
Inferred Groundwater Flow Direction
Management Area
PFAS Source Areas
SLIP
Paper Size ISO A3
0
25
50
75
100
Metres
N
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50
GHD
Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling
Groundwater PFOS Concentrations - September 2025
Project No. 12641234
Revision No. 0
Date 10/07/2026
FIGURE 9a
\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_009a_GroundwaterPFOS_Rev0
Print date: 10 Jul 2026 - 11:22
Data source: WANow: Landgate / SLIP. Created by: [redacted]


MW124
MW109
MW112
MW128
MW125
MW120
MW500
MW121
MW123
MW126
MW127
MW158
MW161
MW166
MW173
MW171
MW468
MW196
MW199
MW200
MW193
MW203
MW202
MW288
MW289
MW233
MW236
MW238
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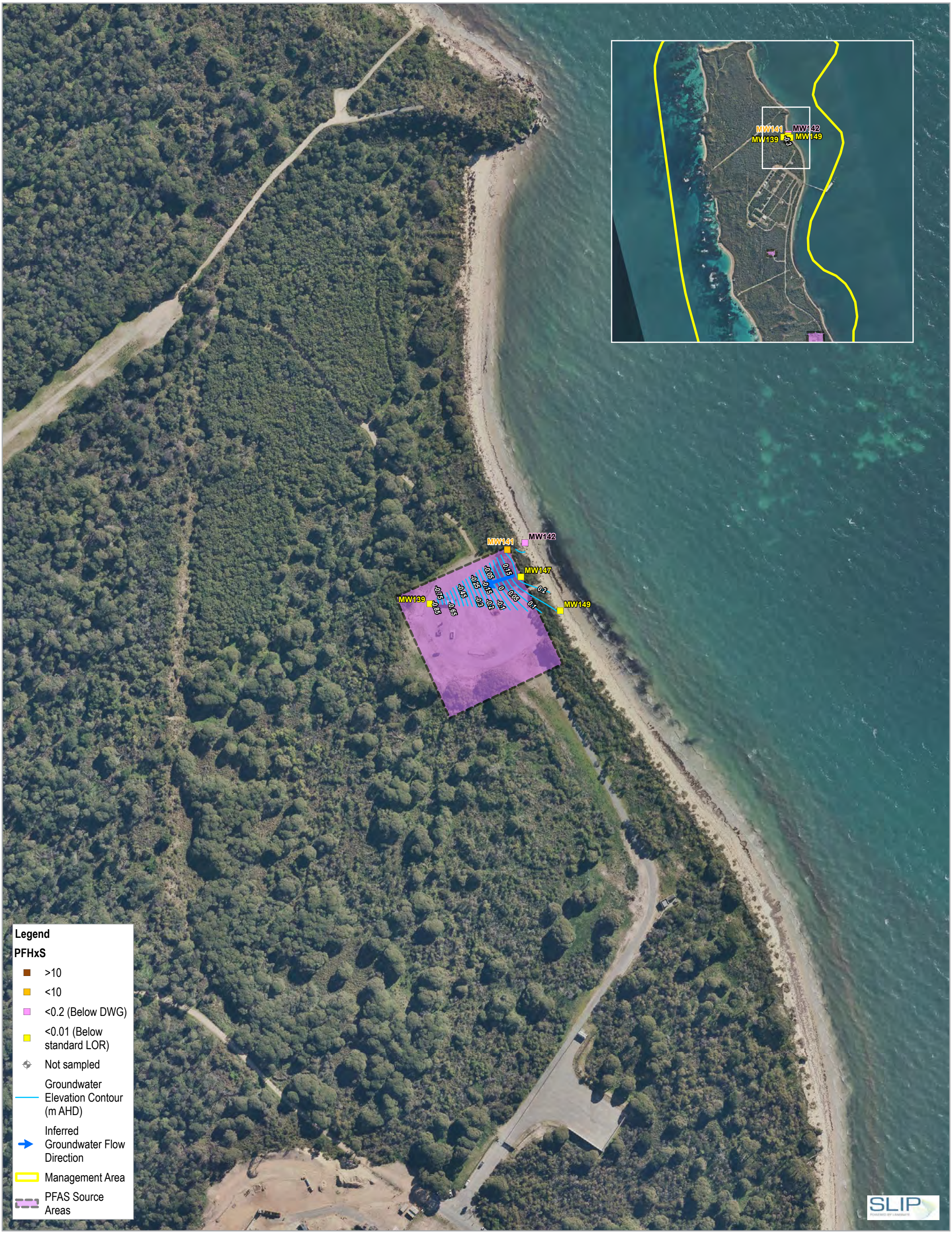
MW240
MW242
MW243
MW245
MW255
MW256
MW257
MW258
MW259
MW516
MW496
MW553
MW010
MW269
MW268
MW249
MW228
MW217
MW220
MW227
MW214
MW216
MW226
MW224
MW282
MW225
MW215
Legend
PFHxS
>10
<10
<0.2 (Below DWG)
<0.01 (Below standard LOR)
Not sampled
Groundwater Elevation Contour (m AHD)
Inferred Groundwater Flow Direction
Management Area
PFAS Source Areas
Paper Size ISO A3
0 125 250 375 500
Metres
N
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50
GHD
Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling
Groundwater PFOA Concentrations - September 2025
Project No. 12641234
Revision No. 0
Date 10/07/2026
FIGURE 10
\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_010_GroundwaterPFOA_Rev0
Print date: 10 Jul 2026 - 11:21
Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

0 25 50 75 100

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

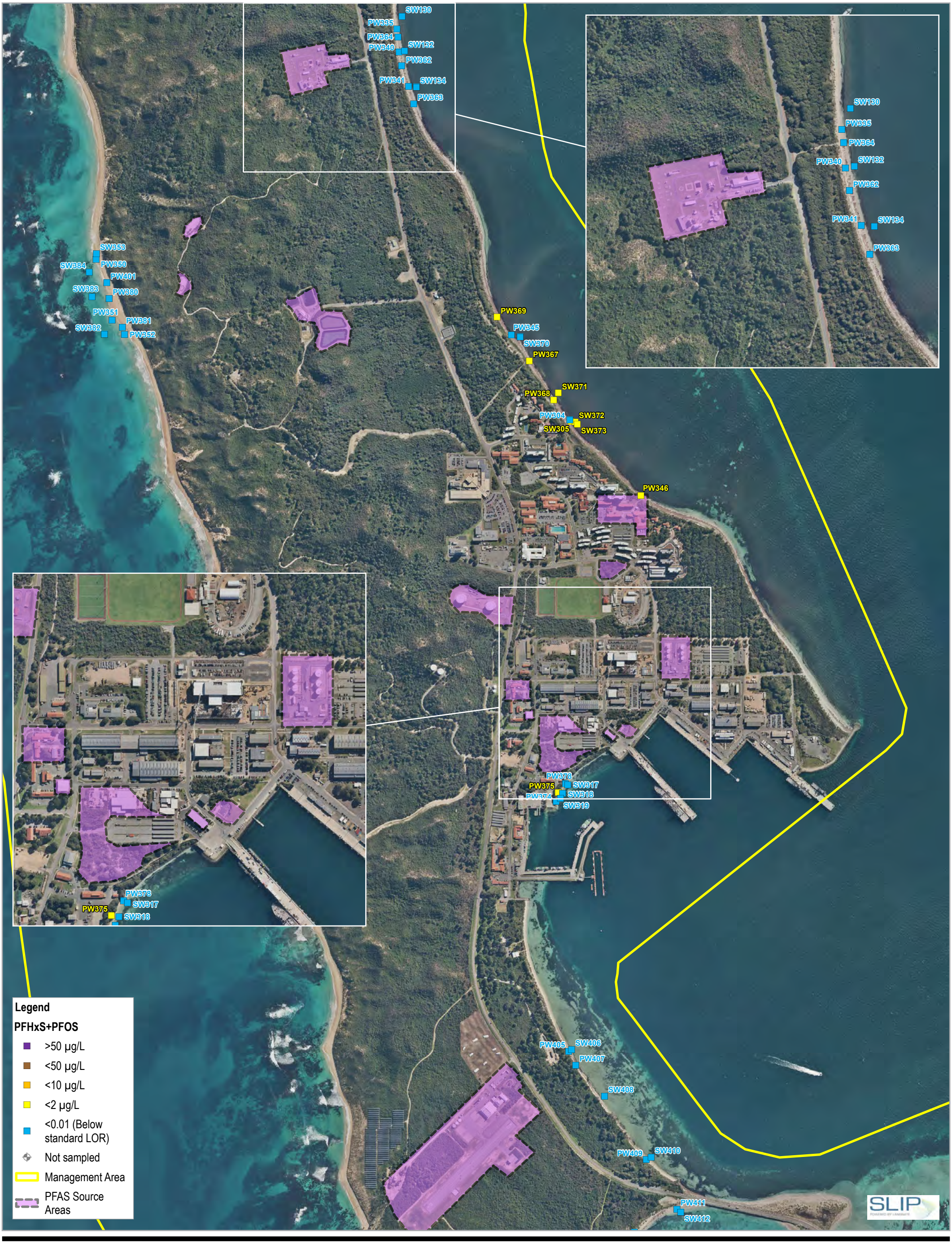
Groundwater PFOA Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 10a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_010a_GroundwaterPFOA_Rev0
Print date: 10 Jul 2026 - 11:21

Data source: WANow: Landgate / SLIP. Created by: [redacted]


SW130
PW335
PW364
PW340
SW132
PW362
PW341
SW134
PW363
SW353
SW384
PW350
PW401
SW383
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PW381
SW382
PW352
PW369
PW345
SW370
PW367
SW371
PW368
PW304
SW372
SW305
SW373
PW346
PW378
SW317
PW375
SW318
SW319
PW405
SW406
PW407
SW408
PW409
SW410
PW411
SW412
Legend
PFHxS+PFOS
>50 µg/L
<50 µg/L
<10 µg/L
<2 µg/L
<0.01 (Below standard LOR)
Not sampled
Management Area
PFAS Source Areas
SLIP
Paper Size ISO A3
0 125 250 375 500
Metres
N
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50
GHD
Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling
Surface Water and Pore Water PFHxS + PFOS Concentrations - September 2025
Project No. 12641234
Revision No. 0
Date 10/07/2026
FIGURE 11
\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_011_SW_PW_PFHxS_PFOS_Rev0
Print date: 10 Jul 2026 - 11:21
Data source: WANow: Landgate / SLIP. Created by:



Paper Size ISO A3

0 25 50 75 100

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

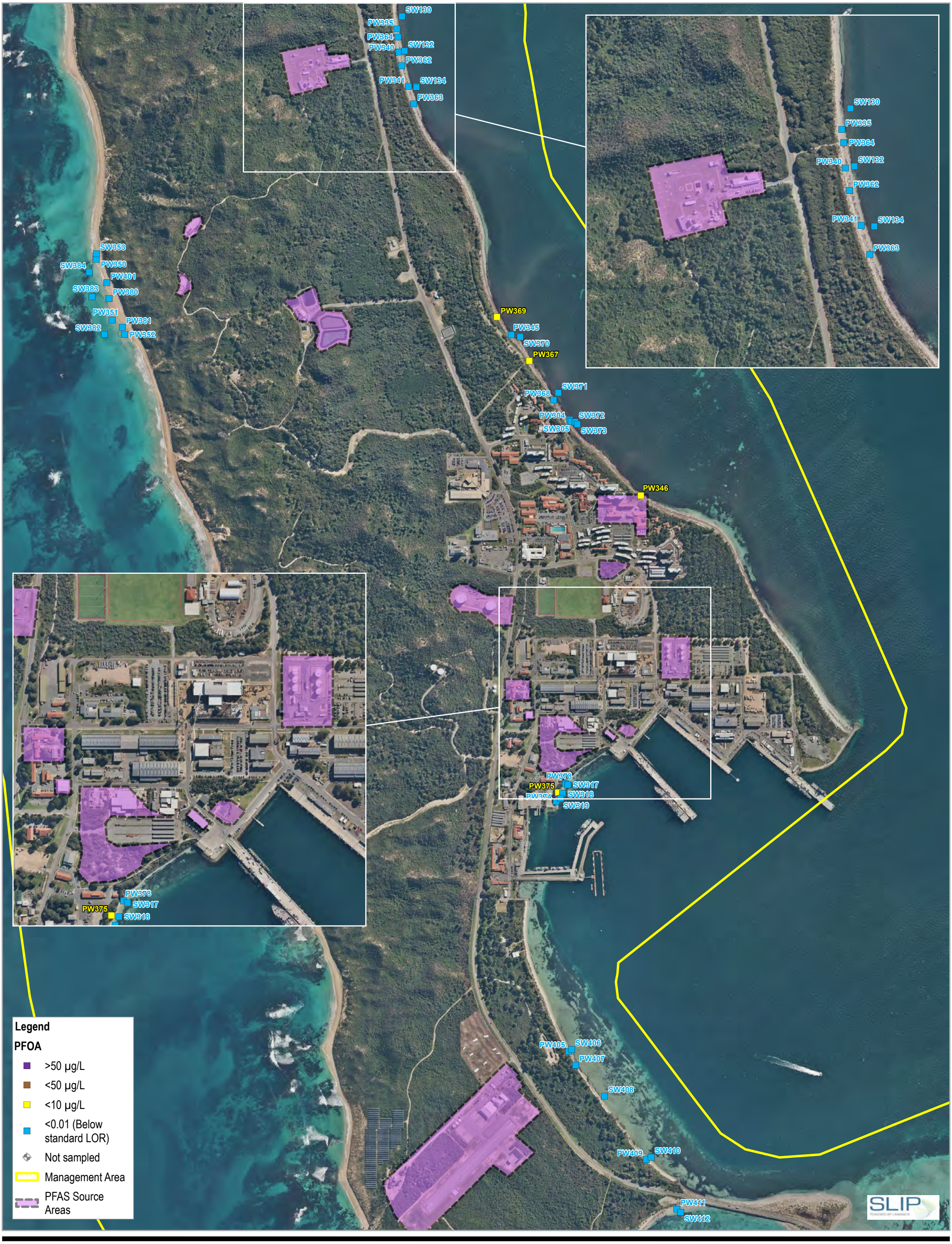
Surface Water and Pore Water PFHxS + PFOS Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 11a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_011a_SW_PW_PFHxS_PFOS_Rev0
Print date: 10 Jul 2026 - 11:21

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

0 125 250 375 500

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

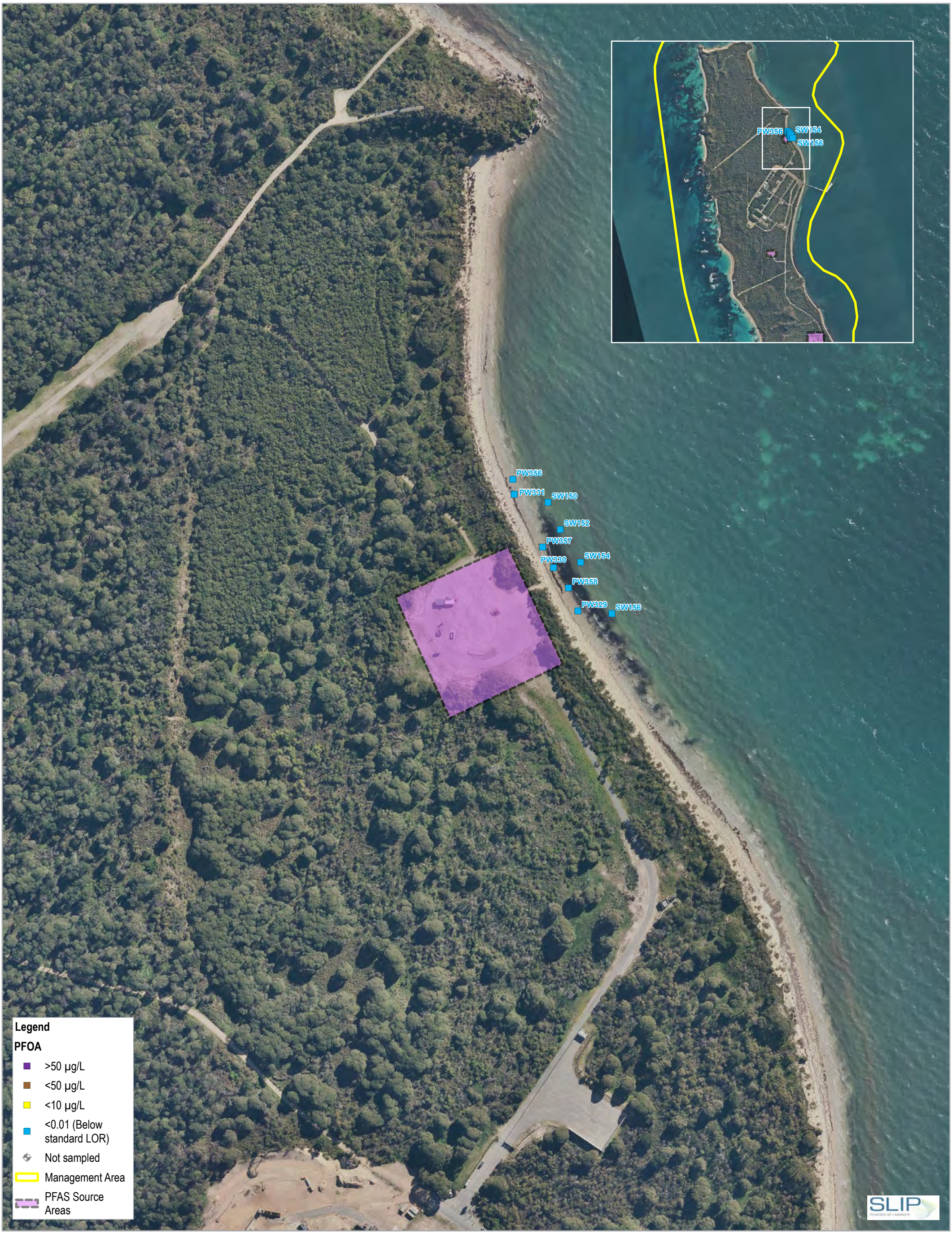
Surface Water and Pore Water PFOA Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 12

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_012_SW_PW_PFOA_Rev0
Print date: 10 Jul 2026 - 11:22

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

0 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

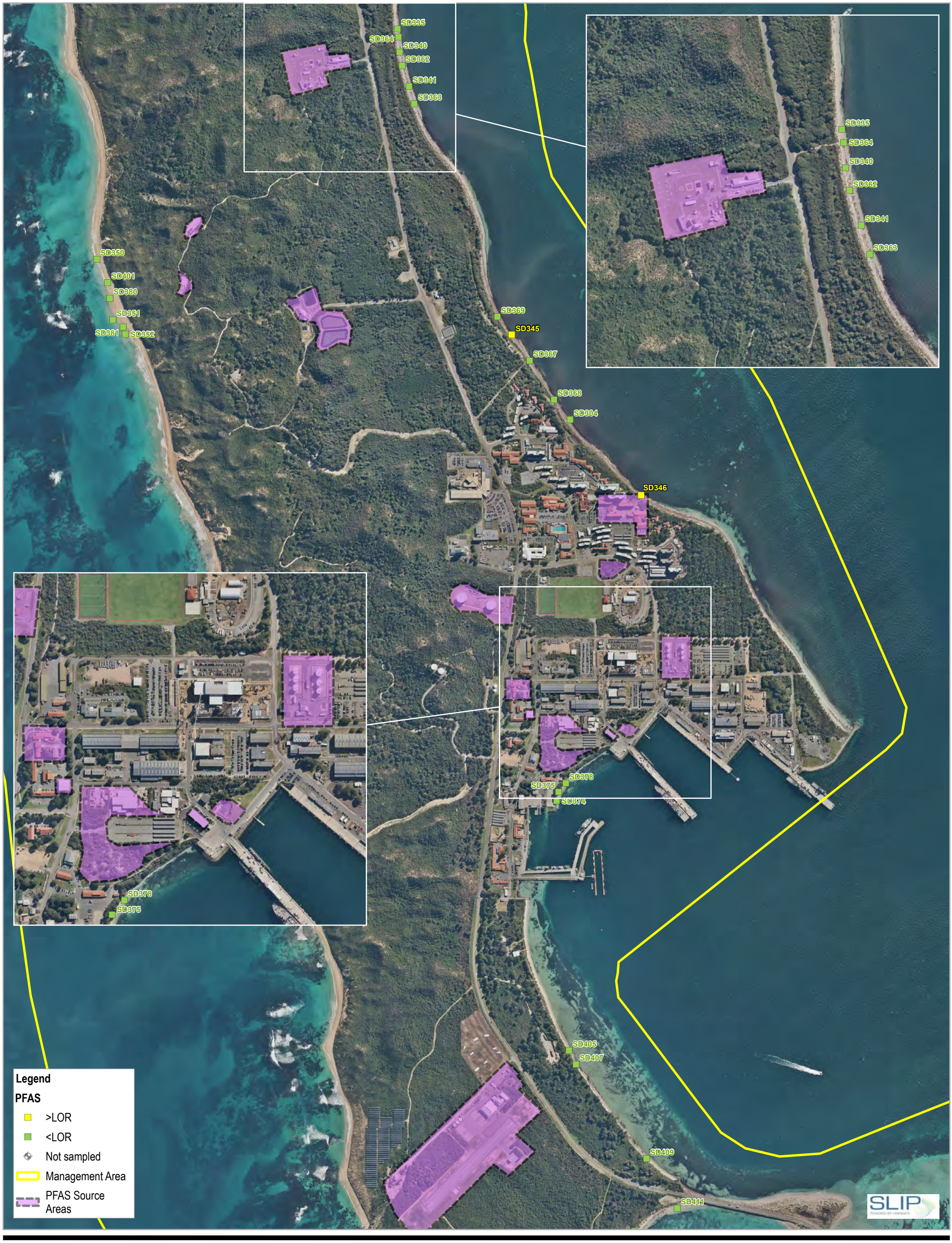
Surface Water and Pore Water PFOA Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 12a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_012a_SW_PW_PFOA_Rev0
Print date: 10 Jul 2026 - 11:22

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

0 125 250 375 500

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Sediment PFAS Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 13

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_013_SedimentPFAS_Rev0
Print date: 10 Jul 2026 - 11:22

Data source: WANow: Landgate / SLIP. Created by: [redacted]



Paper Size ISO A3

0 25 50 75 100

Metres

N

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

GHD

Department of Defence
PFAS Ongoing Monitoring Plan
Quarterly Sampling Event – September 2025
HMAS Stirling

Sediment PFAS Concentrations - September 2025

Project No. **12641234**
Revision No. **0**
Date **10/07/2026**

FIGURE 13a

\\ghdnet\ghd\AU\Perth\Projects\61\12641234\GIS\Maps\Working\12641234_HMASStirlingQSESep25\12641234_HMASStirlingQSESep25.aprx\12641234_HMASStirlingQSESep25_013a_SedimentPFAS_Rev0
Print date: 10 Jul 2026 - 11:22

Data source: WANow: Landgate / SLIP. Created by: [redacted]

Appendix B

Data Validation

		Sample Type	Field Blank									
		Date	09 Sep 2025	10 Sep 2025	11 Sep 2025	12 Sep 2025	15 Sep 2025	16 Sep 2025	17 Sep 2025	18 Sep 2025	19 Sep 2025	23 Sep 2025
		Field ID	0089_QC401_250909	0089_QC402_250910	0089_QC403_250911	0089_QC404_2500912	0089_QC405_250915	0089_QC406_250916	0089_QC407_250917	0089_QC408_250918	0089_QC409_250919	0089_QC410_250923
		Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515823	EP2515823
Analyte	**Unit**	**LOR**										
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide												
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids												
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums												
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

		Sample Type	Rinsate									
		Date	09 Sep 2025	10 Sep 2025	11 Sep 2025	12 Sep 2025	15 Sep 2025	16 Sep 2025	17 Sep 2025	18 Sep 2025	19 Sep 2025	23 Sep 2025
		Field ID	0089_QC301_250909	0089_QC302_250910	0089_QC303_250911	0089_QC304_250912	0089_QC305_250915	0089_QC306_250916	0089_QC307_250917	0089_QC308_250918	0089_QC309_250919	0089_QC310_250923
		Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408	EP2515823	EP2515823
Analyte	**Unit**	**LOR**										
PFAS - Perfluoroalkyl Sulfonic Acids												
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids												
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Perfluoroalkyl Sulfonamide												
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids												
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums												
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Location Code			0089_PW363	0089_PW363		0089_PW363	0089_PW363		0089_SW310	0089_SW310		0089_SW310	0089_SW310	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			09 Sep 2025	09 Sep 2025		09 Sep 2025	09 Sep 2025		10 Sep 2025	10 Sep 2025		10 Sep 2025	10 Sep 2025	
Field ID			0089_PW363_250909	0088_QC102_250909		0089_PW363_250909	0089_QC202_250909		0089_SW310_250910	0089_QC104_250910		0089_SW310_250910	0089_QC204_250910	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***** RPDs have only been considered where a concentration is greater than 1 times the EQL.

****** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

******* Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_PW367	0089_PW367		0089_PW367	0089_PW367		0089_SW371	0089_SW371		0089_SW371	0089_SW371	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			12 Sep 2025	12 Sep 2025		12 Sep 2025	12 Sep 2025		12 Sep 2025	12 Sep 2025		12 Sep 2025	12 Sep 2025	
Field ID			0089_PW367_250912	0089_QC106_250912		0089_PW367_250912	0089_QC206_250912		0089_SW371_250912	0089_QC108_250912		0089_SW371_250912	0089_QC208_250912	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.01	0.01	0	0.01	0.02	67	0.02	0.03	40	0.02	<0.01	67
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	0.01	0.01	0	0.01	<0.1	0	0.02	0.03	40	0.02	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	0.01	0.01	0	0.01	<0.05	0	0.02	0.03	40	0.02	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.02	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	0.01	0.01	0	0.01	0.02	67	0.02	0.03	40	0.02	<0.01	67
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.02	-	-	-	-	-	<0.01	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***** RPDs have only been considered where a concentration is greater than 1 times the EQL.

****** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

******* Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_PW304	0089_PW304		0089_PW304	0089_PW304		0089_MW259	0089_MW259		0089_MW259	0089_MW259	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			12 Sep 2025	12 Sep 2025		12 Sep 2025	12 Sep 2025		15 Sep 2025	15 Sep 2025		15 Sep 2025	15 Sep 2025	
Field ID			0089_PW304_250912	0089_QC107_250912		0089_PW304_250912	0089_QC207_250912		0089_MW259_250915	0089_QC110_250915		0089_MW259_250915	0089_QC210_250915	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.05	0.05	0	0.05	0.07	33
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.02	0.02	0	0.02	0.03 #1	40
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.02	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.02	0.02	0	0.02	0.03	40
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	0.09	0.09	0	0.09	0.2	76
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	0.09	0.09	0	0.09	0.15	50
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.07	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.07	0.07	0	0.07	0.1	35
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.1	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***** RPDs have only been considered where a concentration is greater than 1 times the EQL.

****** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

******* Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_MW214	0089_MW214		0089_MW214	0089_MW214		0089_PW407	0089_PW407		0089_PW407	0089_PW407	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			15 Sep 2025	15 Sep 2025		15 Sep 2025	15 Sep 2025		16 Sep 2025	16 Sep 2025		16 Sep 2025	16 Sep 2025	
Field ID			0089_MW214_250915	0089_QC109_250915		0089_MW214_250915	0089_QC209_250915		0089_PW407_250916	0089_QC112_250916		0089_PW407_250916	0089_QC212_250916	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	<0.01	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***** RPDs have only been considered where a concentration is greater than 1 times the EQL.

****** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

******* Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_MW236	0089_MW236		0089_MW236	0089_MW236		0089_MW195D	0089_MW195D		0089_MW195D	0089_MW195D	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			17 Sep 2025	17 Sep 2025		17 Sep 2025	17 Sep 2025		18 Sep 2025	18 Sep 2025		18 Sep 2025	18 Sep 2025	
Field ID			0089_MW236_250917	0089_QC113_250917		0089_MW236_250917	0089_QC213_250917		0089_MW195D_250918	0089_QC114_250918		0089_MW195D_250918	0089_QC214_250918	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.16	0.16	0	0.16	0.22	32	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	0.13	0.27	70	0.13	0.51	119	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	23.4	21.2	10	23.4	36	42	<0.01	<0.01	0	<0.01	0.02	67
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	0.04	0.04	0	0.04	0.06	40	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.26	0.27	4	0.26	0.37 #1	35	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	25.7	23.1	11	25.7	29 #1	12	<0.01	<0.01	0	<0.01	0.01 #1	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	0.10	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	0.30	0.31	3	0.30	0.41 #1	31	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.54	0.58	7	0.54	0.85	45	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	0.98	0.96	2	0.98	1.3	28	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	1.14	1.24	8	1.14	1.8 #1	45	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	0.10	0.10	0	0.10	0.12	18	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	52.8	48.2	9	52.8	71	29	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	51.3	46.7	9	51.3	68.5	29	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	38	-	-	-	-	-	0.02	-
Sum of PFHxS and PFOS	µg/L	0.01	49.1	44.3	10	49.1	65	28	<0.01	<0.01	0	<0.01	0.03	100
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	66.8	-	-	-	-	-	0.03	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***** RPDs have only been considered where a concentration is greater than 1 times the EQL.

****** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

******* Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_MW124	0089_MW124		0089_MW124	0089_MW124		0089_MW139	0089_MW139		0089_MW139	0089_MW139	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			19 Sep 2025	19 Sep 2025		19 Sep 2025	19 Sep 2025		23 Sep 2025	23 Sep 2025		23 Sep 2025	23 Sep 2025	
Field ID			0089_MW124_250919	0089_QC115_250919		0089_MW124_250919	0089_QC215_250919		0089_MW139_250923	0089_QC117_250923		0089_MW139_250923	0089_QC217_250923	
Lab Report Number			EP2515823	EP2515823		EP2515823	1273096		EP2515823	EP2515823		EP2515823	1273096	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.01	0.02	67	0.01	0.03	100	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	0.01	0.02	67	0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	0.01	0.02	67	0.01	<0.05	0	<0.01	<0.01	0	<0.01	<0.05	0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.03	-	-	-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01	0.01	0.02	67	0.01	0.03	100	<0.01	<0.01	0	<0.01	<0.01	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	0.03	-	-	-	-	-	<0.01	-

Comments

Quantification of linear and branched isomers has been conducted as a single total response using the relative response
#1 factor for the corresponding linear/branched standard.

RPDs have only been considered where a concentration is
***** greater than 1 times the EQL.

Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x
****** EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row
******* header relate to those used in the primary laboratory

Location Code			0089_SW154	0089_SW154		0089_SW154	0089_SW154		0089_MW147	0089_MW147		0089_MW147	0089_MW147	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			23 Sep 2025	23 Sep 2025		23 Sep 2025	23 Sep 2025		23 Sep 2025	23 Sep 2025		23 Sep 2025	23 Sep 2025	
Field ID			0089_SW154_250923	0088_QC116_250923		0089_SW154_250923	0089_QC216_250923		0089_MW147_250923	0089_QC118_250923		0089_MW147_250923	0089_QC218_250923	
Lab Report Number			EP2515823	EP2515823		EP2515823	1273096		EP2515823	EP2515823		EP2515823	1273096	
Matrix Type			Water	Water	RPD	Water	Water	RPD	Water	Water	RPD	Water	Water	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorononane sulfonate (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.02	0.02	0	0.02	0.04	67
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.10	0.12	18	0.10	0.22	75
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.03	0.03	0	0.03	0.05	50
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
PFAS - Sums														
PFAS (Sum of Total)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	0.15	0.17	13	0.15	0.3	67
PFAS (Sum of Total)(WA DER List)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.05	0	0.15	0.17	13	0.15	0.31	70
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.04	-
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.12	0.14	15	0.12	0.26	74
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	-	-	-	-	<0.01	-	-	-	-	-	0.26	-

Comments

#1 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.

***** RPDs have only been considered where a concentration is greater than 1 times the EQL.

****** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

******* Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_SD363	0089_SD363		0089_SD363	0089_SD363		0089_SD307	0089_SD307		0089_SD307	0089_SD307	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			09 Sep 2025	09 Sep 2025		09 Sep 2025	09 Sep 2025		10 Sep 2025	10 Sep 2025		10 Sep 2025	10 Sep 2025	
Field ID			0089_SD363_250909	0089_QC101_250909		0089_SD363_250909	0089_QC201_250909		0089_SD307_250910	0089_QC103_250910		0089_SD307_250910	0089_QC203_250910	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
PFAS - Sums														
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-

* RPDs have only been considered where a concentration is greater than 1 times the EQL.

** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

***** Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Location Code			0089_SD367	0089_SD367		0089_SD367	0089_SD367		0089_SD405	0089_SD405		0089_SD405	0089_SD405	
Sample Type			Normal	Field Duplicate		Normal	Field Split		Normal	Field Duplicate		Normal	Field Split	
Date			12 Sep 2025	12 Sep 2025		12 Sep 2025	12 Sep 2025		16 Sep 2025	16 Sep 2025		16 Sep 2025	16 Sep 2025	
Field ID			0089_SD367_250912	0089_QC105_250912		0089_SD367_250912	0089_QC205_250912		0089_SD405_250916	0089_QC111_250916		0089_SD405_250916	0089_QC211_250916	
Lab Report Number			EP2515408	EP2515408		EP2515408	1270698		EP2515408	EP2515408		EP2515408	1270698	
Matrix Type			Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD	Soil	Soil	RPD
	Unit	LOR												
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	0	<0.001	<0.005	0	<0.001	<0.001	0	<0.001	<0.005	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Perfluoroalkyl Sulfonamide														
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
PFAS - Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.01	0	<0.0005	<0.0005	0	<0.0005	<0.01	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.0005	0	<0.0005	<0.005	0
PFAS - Sums														
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.05	0	<0.0002	<0.0002	0	<0.0002	<0.05	0
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.01	0	<0.0002	<0.0002	0	<0.0002	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.005	0	<0.0002	<0.0002	0	<0.0002	<0.005	0
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.005	-

* RPDs have only been considered where a concentration is greater than 1 times the EQL.

** Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))

*** Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Appendix C

Results Tables

Well Data					Field Data			Field Parameters							
Location ID	Sample Date	TOC Elevation (mAHD)	Groundwater Elevation (mAHD)	Screen Interval (m bgl)	Well Depth (m bTOC)	Depth to Water (m bTOC)	Sample Depth (m BTOC)	Temperature (°C)	EC (µS/cm)	pH	DO (mg/L)	Redox (mV)	TDS (mg/L)	Sample Comments	Sample Method
0089_MW010	17/09/2025	4.167	1.049	-	8.43	3.81	5.8	19.9	4,158	7.34	2.21	-171.5	2,704	Clear, strong sulfuric odour, no turbidity, low sediment load, do :16%	No purge/hydrasleeve
0089_MW109	19/09/2025	4.446	-0.204	2.5 - 5.5	5.78	4.65	5.5	19.7	883	7.27	1.75	-110.5	574	Clear, no sheen, strong sulfuric odor, low turbidity, do:18.0%	No purge/hydrasleeve
0089_MW112	19/09/2025	3.973	0.573	3 - 6	6	3.4	4.5	20.7	585	7.36	1.5	-114.5	380.5	Pale yellow, no odour, no sheen, low sediment load, do:11.8%, low turbidity	No purge/hydrasleeve
0089_MW120	19/09/2025	4.409	0.424	2.5 - 5.5	5.715	3.985	5	19	669	7.36	5.89	-107.3	435.1	White, turbid, no odour, no sheen, no sediment load, do:46.7%	No purge/hydrasleeve
0089_MW121	19/09/2025	3.7	0.45	2.7 - 5.7	4.05	3.25	4	19	432.5	7.82	5.57	-114.5	281.1	White, turbid, no sheen, slight sulfuric odor, do:59.9%	No purge/hydrasleeve
0089_MW123	19/09/2025	6.62	0.42	4.5 - 8	8	6.2	7	19.6	914	7.25	2	-113.5	595	Strong sulfuric odour, no sheen, no sediment load, white, turbid, do:14.3%	No purge/hydrasleeve
0089_MW124	19/09/2025	1.899	0.119	0.75 - 4	4.17	1.78	3	21.2	31,586	7.21	0.92	-205	20,502	Clear, low sediment load, no sheen, strong sulfuric odour, low turbidity	No purge/hydrasleeve
0089_MW125	9/09/2025	1.882	0.152	0.9 - 3.9	4.325	1.73	3	22.1	14,141	7.38	3.2	-93.1	9,192	Clear, no turbidity, no sediment load, no sheen, sulfuric odour	No purge/hydrasleeve
0089_MW126	9/09/2025	1.948	0.178	0.9 - 3.9	3.9	1.77	2.3	19	39,413	6.95	3.63	-211.1	25,610	Sulfuric odour, colourless, no sediment load, no sheen, no turbidity	No purge/hydrasleeve
0089_MW127	9/09/2025	1.771	0.196	0.9 - 3.9	4.1	1.575	2.5	19.1	31,851	7.18	1.13	-138.5	20,717	DO:13.2%, colourless, odourless, low sediment load, no sheen, no turbidity	No purge/hydrasleeve
0089_MW128	19/09/2025	4.537	0.357	2.5 - 5.5	5.8	4.18	4.5	19.2	796	7.24	2.5	-113.5	517	White, turbid, low sediment load, no sheen, strong sulfuric odour, do:20.3%	No purge/hydrasleeve
0089_MW139	23/09/2025	2.273	0.318	2 - 5	5.51	1.955	4.5	23.40	610.00	7.90	3.34	29.10	396.50	Clear, colourless, no odour, no sheen, no sediment load, (DO% 39.5)	No purge/hydrasleeve
0089_MW141	23/09/2025	3.025	0.22	2 - 5	5.16	2.805	4	21.40	28810.00	7.01	0.68	-230.20	18726.50	Clear, colourless, low sediment load, sulphidic odour, no sheen (DO% 8.4)	No purge/hydrasleeve
0089_MW142	23/09/2025	2.573	0.173	0.25 - 4	3.75	2.4	3.5	14.60	42289.00	6.44	0.92	-119.30	27482.00	Clear, colourless, no sediment load, no odour, no sheen (DO: 11.6%)	No purge/hydrasleeve
0089_MW147	23/09/2025	3.423	0.237	2 - 5	5.51	3.186	4	22.00	5267.00	7.30	1.31	-160.10	3425.50	Slightly turbid, moderate sediment load, colourless, no odour, no sheen (DO% 15)	No purge/hydrasleeve
0089_MW149	23/09/2025	2.303	0.153	1 - 4	4.385	2.15	3.5	20.10	29807.00	7.43	0.60	-34.70	19370.00	Clear, colourless, low sediment load, no odour, no sheen (DO: 7.6%)	No purge/hydrasleeve
0089_MW161	23/09/2025	17.225	0.455	-	17.18	16.77	17	21.90	4099.00	7.48	2.30	26.70	2658.00	Pale brown, slightly turbid, low sediment load, no odour, no sheen (DO: 26.6%)	No purge/hydrasleeve
0089_MW166	23/09/2025	11.89	0.515	10 - 13	12.28	11.375	12	-	425.60	7.26	1.61	37.10	2769.00	Pale orange/brown, turbid, high sediment load, no odour, no sheen (DO 17.1%)	Bailer
0089_MW171	23/09/2025	29.238	0.393	28.5 - 31.5	31.5	28.845	30	20.40	6312.00	7.31	2.40	51.00	4101.50	Pale white, cloudy/slighly turbid, no odour, no sheen	No purge/hydrasleeve
0089_MW173	18/09/2025	10.08	0.479	-	11.341	9.601	10	22.9	4,500	7.06	1.81	-96.5	2,926	Strong sulfuric smell, low sediment load, pake yellow, no sheen, do:21.6%, low turbidity	No purge/hydrasleeve
0089_MW193	18/09/2025	11.86	0.51	10.5 - 13.5	12.5	11.35	11.5	20.4	1,225	7.28	3.27	-99.5	1,225	Clear, low sediment load, strong sulfuric odor, no sheen, no turbidity, do:34.2%	No purge/hydrasleeve
0089_MW195D	18/09/2025	4.363	0.423	10 - 13	12.36	3.94	11.5	18	24,880	7.27	1.66	-123.9	16,176	Pale white, low sediment load, no sheen, no turbidity, slight sulfuric odour, do: 15.2%	No purge/hydrasleeve
0089_MW196	18/09/2025	12.75	0.35	-	13.48	12.4	13	18.6	529	7.75	5.2	-95.2	344.1	Pale brown, strong sulfuric odour, turbid, no sheen, do:55.5%	No purge/hydrasleeve
0089_MW199	18/09/2025	11.8	0.309	-	17.7	11.491	16.7	19.1	19,121	7.19	1.09	-206.5	12,427	Clear, strong sulfuric smell, no sediment load, no turbidity, no sheen, do:11.9%	No purge/hydrasleeve
0089_MW200	23/09/2025	2.07	0.025	-	2.63	2.045	2.5	14.10	6005.00	7.45	2.77	47.70	3966.50	Clear, colourless, no sediment load, no odour, no sheen. DO: 30.2%	No purge/hydrasleeve
0089_MW202	19/09/2025	2.12	0.32	-	2.85	1.8	2	18.9	1,425	7.49	1.19	-111.5	926	Clear, low sediment load, no odour, no sheen, no turbidity, do:12.5%	No purge/hydrasleeve
0089_MW203	16/09/2025	10.855	0.53	-	12.85	10.325	11.8	19.9	836	7.32	3.41	-80.3	544	White, turbid, no sheen, odourless, do:29.9%	No purge/hydrasleeve
0089_MW214	15/09/2025	8.075	1.605	5.5 - 9	9.1	6.47	7.5	17.4	2,504	7.18	3.13	-53.5	1,628	Low sediment load, no sheen, do: 34.5%	No purge/hydrasleeve
0089_MW215	15/09/2025	3.794	0.549	1.5 - 4.5	4.5	3.245	4.5	17.8	1,468	7.34	3.73	-74.5	956	No odour, roots presents, clear, no sheen, no turbidity, do:47.6%	No purge/hydrasleeve
0089_MW216	15/09/2025	8.329	0.959	6 - 9	9.1	7.37	8.3	15.5	2,187	7.44	2.77	-46.5	2,187	No odour, low sediment load, no sheen, colourless, do:26.7%	No purge/hydrasleeve
0089_MW217	15/09/2025	8.847	0.647	6.5 - 9.5	9.5	8.2	9.2	18.3	838	7.51	5.06	-48.5	544	Slightly turbid, low sediment load, no sheen, no odour, do: 54.6%	No purge/hydrasleeve
0089_MW220	15/09/2025	7.054	0.679	-	8.25	6.375	7.25	16.6	840	7.05	1.55	-47.5	546	Slighty turbid, roots present, low sediment load, no odour, no sheen.	No purge/hydrasleeve
0089_MW224	15/09/2025	13.372	0.552	11.25 - 14.25	14.25	12.82	13.25	16.1	869	7.78	7.8	-49.5	565	Low sediment load, slightly turbid, no sheen,, no odour, colorless, do:67.2	No purge/hydrasleeve
0089_MW225	15/09/2025	4.066	0.441	2 - 5	5.41	3.625	4.4	16.99	2,540	7.23	3.59	-41.9	1,651	No odour, no sediment load, no sheen, no turbidity.	No purge/hydrasleeve
0089_MW226	16/09/2025	1.749	0.169	0.75 - 3.8	4.1	1.58	2.5	18.2	18,455	7.44	5.03	-103.5	11,976	Low sediment load, pale yellow, no sheen, no odour, no turbidity, do:31.6%	No purge/hydrasleeve
0089_MW227	23/09/2025	2.961	0.5765	1.25 - 4.2	4.11	2.3845	3.2	18.80	2684.00	7.24	2.53	29.00	1748.50	Pale brown, slightly turbid, low sediment load, no odour, no sheen (DO: 27.4%)	No purge/hydrasleeve
0089_MW228	16/09/2025	2.23	0.28	0.75 - 3.75	3.75	1.95	3	16.9	13,535	7.25	7.82	-66	8,798	Low sediment load, yellow tinge, no sheen, no turbidity, do:30.7%	No purge/hydrasleeve
0089_MW233	16/09/2025	3.705	1.13	-	4.15	2.575	3.15	15.3	237.5	8.12	11.77	-83.5	154.8	White, turbid, low sediment load, no odour, no sheen	No purge/hydrasleeve
0089_MW236	17/09/2025	4.642	0.822	-	5.6	3.82	4.5	19.6	666	7.6	4.97	-92.3	432.5	Colourless, low turbidity, low sediment load, no sheen, odourless, flow rate: 0.3L/min, do:54.8%	Low flow/peri pump
0089_MW238	17/09/2025	4.827	0.957	-	7.3	3.87	6.3	20.7	678	7.47	2.15	-84.5	441	Pale yellow, low sediment load, no sheen, no odour, do:21.8%	No purge/hydrasleeve
0089_MW239	17/09/2025	4.03	0.68	-	5.9	3.35	4.5	20.60	555.00	7.52	1.19	-94.50	360.70	Clear, no odour, low sediment load, no sheen, no turbidity, do: 12.8%	Lowflow/peri pump
0089_MW240	17/09/2025	4.483	0.963	-	6	3.52	5	21.7	691	7.47	3.95	-86.5	448.5	Pale brown, low sediment load, no sheen, no odour, do:34.5%	No purge/hydrasleeve
0089_MW242	17/09/2025	3.539	0.961	-	4.26	2.578	3.2	21.40	689.00	7.64	3.86	-93.50	447.50	Pale yellow, low sediment load, no turbidity, no sheen, odourless, do: 33.1%	No purge/hydrasleeve
0089_MW243	15/09/2025	4.892	0.892	-	6.93	4	4.6	-	821.00	7.56	3.19	-88.60	533.00	Pale white, load sediment load, no odour, no sheen, do: 34.4%	No purge/hydrasleeve
0089_MW245	17/09/2025	4.551	1.051	-	6.33	3.5	4.4	18.1	435.6	7.42	1.6	-98.1	283.5	Strong hydrocarbon odour, some orange floating particles, low sediment load, low turbidity, do:13.6%	No purge/hydrasleeve
0089_MW255	15/09/2025	4.609	0.729	3 - 6	6	3.88	5	17.8	897	7.46	5.02	-52.5	583	Colourless, low turbidity, low sediment load, no sheen, colorless, do:51.2%	No purge/hydrasleeve
0089_MW256	15/09/2025	3.84	0.72	3 - 6	6	3.12	4.5	18	1,519	7.06	1.85	-54.6	988	Pale brown, slightly turbid, some roots, little odour, no sheen, do:18.7%	No purge/hydrasleeve
0089_MW257	15/09/2025	3.806	0.706	2.7 - 5.7	5.7	3.1	4.5	16.7	224.5	8.38	9.46	-56.5	146.1	Clear, no turbidity, low sediment load, no sheen , do:78.5%	No purge/hydrasleeve
0089_MW258	15/09/2025	4.043	0.673	3 - 6	6.5	3.37	5.5	19.3	1,357	7.21	1.85	-55	882	DO: 20.1%, low sediment load, no sheen, no odour, no turbidity, clear	No purge/hydrasleeve
0089_MW259	15/09/2025	3.8	0.66	2.5 - 5.5	5.5	3.14	4.5	17.1	482	7.36	4.11	-56.6	313.4	Clear, low sediment load, no sheen, no turbidity, noodour, do:40.0%	No purge/hydrasleeve
0089_MW268	17/09/2025	4.056	0.256	2.5 - 5.5	5.7	3.8	4.5	21.5	6,896	7.21	2.07	-91.9	4,486	Pale yellow, low sediment load, no odour, no turbidity, do:19.7%	No purge/hydrasleeve
0089_MW269	17/09/2025	4.153	0.272	2.5 - 5.5	5.835	3.881	4.8	21.1	1,768	7.4	1.47	-93.5	1,150	Low sediment load, odourless, no turbidity, no sheen, clear, roots, do:14.2%	No purge/hydrasleeve
0089_MW282	17/09/2025	5.78	2.68	4.5 - 7.5	6.5	3.1	6	18	993	7.08	4.33	-77.5	645	Broken lid, well cap exposed, slightly turbid, slight odour, low sediment load, no sheen, do:35.5%	No purge/hydrasleeve
0089_MW288	17/09/2025	4.003	0.263	2.25 - 5.25	5.81	3.74	4.7	19.1	968	7.38	3.2	-92.2	629	Clear, low sediment load, no odour, no turbidity, no sheen, DO:28.1%	No purge/hydrasleeve
0089_MW289	19/09/2025	4.495	-0.157	3.25 - 6.25	6.5	4.652	5.5	20.6	662	7.23	1.05	-113.5	430.2	Clear, small black particles floating, no turbidity, no sheen, no odour, do:11.6%	No purge/hydrasleeve
0089_MW468	18/09/2025	-	-	0 - 1.2	2.83	2.38	2.8	16.9	508	7.59	4.07	-97.5	324.5	Brown orange colour, low sediment load, no odour, do:36.5	No purge/hydrasleeve
0089_MW496	16/09/2025	5.092	0.482	3.5 - 8	8.81	4.61	7.5	21.2	1,309	7.45	9.95	-176.5	851	White, turbid, slight sulfuric odour and hydrocarbon, no sheen, do:86%	No purge/hydrasleeve
0089_MW500	19/09/2025	3.692	0.422	2 - 6.5	5.66	3.27	4.5	20.5	565	7.28	1.61	-114.5	367.5	White, turbid, low sediment load, no sheen, do:15.0%	No purge/hydrasleeve
0089_MW516	16/09/2025	6.37	0.56	4.5 - 7.5	7.87	5.81	6.7	21.9	1,023	7.24	1.96	-78.5	665	Slight hydrocarbon odour, white, turbid, low sediment load, no sheen, do:20.2	No purge/hydrasleeve
0089_MW553	17/09/2025	3.801	0.311	3 - 6	5.72	3.49	4.5	19.2	1,192	7.24	1.72	-107.4	775	Strong hydrocarbon smell, clear, low sediment load, no turbidity, no sheen, do:21%	No purge/hydrasleeve

			Field Parameters						
			pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	Redox (Field)	Temperature (Field)	TDS (Field)	
			pH units	µS/cm	mg/L	mV	°C	mg/L	
LOR			0.01	0.1	0.01	0.01	0.1	1	
Location Code	**Date**	**Sampling Method**							**Sample Comments**
0089_PW304	12 Sep 2025	Low flow/peri pump	7.43	30,748	2.46	-68.8	17.3	19,959	*Low sediment load, no sheen, no odour, no turbidity*
0089_PW306	10 Sep 2025	Low flow/peri pump	7.85	52,628	2.7	18.6	14.7	34,228	*Clear, odourless, low sediment load, no sheen*
0089_PW307	10 Sep 2025	Low flow/peri pump	7.94	52,636	5.4	34.212	15	34,215	*Odourless, colourless, low sediment load, no sheen*
0089_PW308	10 Sep 2025	Low flow/peri pump	8.05	52,751	6.84	-189.4	14.8	34,287	*Low sediment load, no sheen, no odour, no turbidity, clear*
0089_PW314	10 Sep 2025	Low flow/peri pump	7.54	52,885	2.2	52	15.3	34,489	*Colourless, no sheen, no odour, clear, low sediment load*
0089_PW315	10 Sep 2025	Low flow/peri pump	7.88	52,548	5.87	13.5	14.5	34,150	*Colourless, no turbidity, low sediment load*
0089_PW316	10 Sep 2025	Low flow/peri pump	8	52,348	6.24	-161.5	15	34,259	*Colourless, low sediment load, no sheen, no turbidity*
0089_PW329	23 Sep 2025	Low flow/peri pump	7.72	52,456	7.9	75.1	17.9	34,106	*Clear, colourless, no odour, no sheen*
0089_PW330	23 Sep 2025	Low flow/peri pump	7.6	53,782	3.07	68.4	18.7	34,950	*Clear, colourless, no odour, no sheen*
0089_PW331	23 Sep 2025	Low flow/peri pump	7.35	53,216	0.08	-317.2	17.1	34,594	*Clear, colourless, no odour, no sheen*
0089_PW335	09 Sep 2025	Low flow/peri pump	7.69	50,531	8.56	-126	14	32,829	*Clear, odourless, no sheen, low sediment load*
0089_PW340	09 Sep 2025	Low flow/peri pump	7.71	49,717	0.41	-32	13.6	32,405	*No sheen, little odour, clear, low sediment load*
0089_PW341	09 Sep 2025	Low flow/peri pump	7.69	51,662	0.18	-29.1	13.8	33,250	*Colourless, sulfuric odour, no turbidity, no sheen*
0089_PW345	12 Sep 2025	Low flow/peri pump	7.52	51,663	1.15	-134.4	15	33,653	*Low sediment load, no turbidity, no sheen, no colour, no odour*
0089_PW346	12 Sep 2025	Low flow/peri pump	7.59	10,486	2	-69.7	17.5	6,823	*Low sediment load, no sheen, no turbidity, colourless*
0089_PW350	11 Sep 2025	Low flow/peri pump	7.99	53,081	4.42	56.2	17	34,511	*Odourless, colourless, low sediment load, no turbidity*
0089_PW351	11 Sep 2025	Low flow/peri pump	7.96	52,980	5.94	-131.5	17.81	34,453	*No sheen, colourless, clear, low sediment load, odourless*
0089_PW352	11 Sep 2025	Low flow/peri pump	8.05	52,858	6.45	51	16.7	34,410	*Colourless, clear, low sediment load, no sheen*
0089_PW356	23 Sep 2025	Low flow/peri pump	7.47	53,192	0.15	-203.4	17.6	34,574	*Clear, colourless, no odour, no sheen*
0089_PW357	23 Sep 2025	Low flow/peri pump	7.67	53,208	4.26	70.3	16.8	34,587	*Clear, colourless, no odour, no sheen*
0089_PW358	23 Sep 2025	Low flow/peri pump	7.61	51,532	1.8	58.5	17.7	33,494	*Clear, colourless, no odour, no sheen*
0089_PW362	09 Sep 2025	Low flow/peri pump	7.73	52,125	1.33	-27.6	14.3	33,880	*Odourless, low sediment load, no sheen, no turbidity, clear*
0089_PW363	09 Sep 2025	Low flow/peri pump	7.7	50,590	0.5	-75.2	14.8	32,945	*Colourless, odourless, low sediment load, no sheen*
0089_PW364	09 Sep 2025	Low flow/peri pump	7.75	50,250	0.54	-7	13.7	32,668	*Colourless, odourless, clear, no sheen, low sediment load*
0089_PW367	12 Sep 2025	Low flow/peri pump	7.05	47,593	3.9	-227	16.4	30,916	*Low sediment load, no turbidity, no sheen, no colour , no odour*
0089_PW368	12 Sep 2025	Low flow/peri pump	7.49	31,919	1.94	-53.3	17.7	20,757	*Low sediment load, no sheen, no colour, odourless*
0089_PW369	12 Sep 2025	Low flow/peri pump	7.8	52,430	1.52	-222.5	15.4	33,828	*Low sediment load, no sheen, no colour, no odour, no turbidity*
0089_PW374	16 Sep 2025	Low flow/peri pump	7.75	48,370	5.72	-86.5	16.2	31,448	*Colourless, no turbidity, low sediment load, no odour*
0089_PW375	16 Sep 2025	Low flow/peri pump	7.79	33,765	5.96	-81.2	16.4	33,757	*Low sediment load, clear, no sheen, no turbidity*
0089_PW378	16 Sep 2025	Low flow/peri pump	7.8	50,936	5.48	-76.5	17.5	33,901	*Clear, low sediment load, no sheen, odourless, no turbidity*
0089_PW380	11 Sep 2025	Low flow/peri pump	8.03	53,282	6.28	39.7	17.5	35,609	*Clear, odourless, low sediment load, no sheen, no turbidity*
0089_PW381	11 Sep 2025	Low flow/peri pump	8.02	52,857	5.4	41	17.3	34,504	*Colourless, low sediment load, odourless*
0089_PW401	11 Sep 2025	Low flow/peri pump	8.03	52,428	5.95	51.4	16.8	34,127	*No sheen, colourless, clear, low sediment load, odourless*
0089_PW405	16 Sep 2025	Low flow/peri pump	7.65	48,845	0.54	-88.6	15	31,666	*Clear, low sediment load, no sheen, no turbidity*
0089_PW407	16 Sep 2025	Low flow/peri pump	7.71	43,890	2.47	-69.3	15	28,444	*Clear, low sediment load, no sheen no odour*
0089_PW409	16 Sep 2025	Low flow/peri pump	7.69	52,662	0.54	-127.8	15.8	33,998	*Clear, low sediment load, no turbidity, no sheen*
0089_PW411	10 Sep 2025	Low flow/peri pump	7.78	52,715	2.78	-180.3	14.7	34,257	*Colourless, no odour, low sediment load, no sheen*
0089_PW413	10 Sep 2025	Low flow/peri pump	7.75	52,847	0.92	-173.5	14.9	34,348	*No colour, clear, no sediment load, no sheen*
0089_PW415	10 Sep 2025	Low flow/peri pump	7.71	52,707	1.73	-177.5	14.5	34,353	*No odour, low sediment load, no sheen, no turbidity*

		Field Parameters							
		pH (Field)	Electrical conductivity (field)	Dissolved Oxygen (Field)	DO (%S) (Field)	Redox (Field)	Temperature (Field)	Total Dissolved Solids (Field)	
		pH units	µS/cm	mg/L	%S	mV	°C	mg/L	
LOR		0.01	0.1	0.01	0.01	0.01	0.1	0.01	
Location Code	**Date**								**Sample Comments**
0089_SW130	09 Sep 2025	8.1	52,737	5.39	71.6	9.6	18.8	-	*High sediment load, clear, colorless,high organic matter content (seaweed)*
0089_SW132	20 Sep 2025	8.13	51,924	5.45	7.1	6.8	18.3	-	*Colourless, no sheen, no turbidity, low sediment load*
0089_SW134	09 Sep 2025	8.19	52,523	7.6	98.9	-17.2	19.1	-	*Colourless, no sheen, no turbidity, low sediment load*
0089_SW150	23 Sep 2025	8.12	53,228	4.82	67.5	-105.1	22.1	34,580	*Clear, colourless, moderate sediment load, no odour, no sheen*
0089_SW152	23 Sep 2025	8.11	53,443	4.53	65.1	69.7	23.4	53,443	*Clear, colourless, moderate sediment load, no odour, no sheen*
0089_SW154	23 Sep 2025	8.1	53,338	4.16	60.2	76.2	22.5	34,645	*Clear, colourless, moderate sediment load, some organic matter (seaweed) no odour, no sheen*
0089_SW156	23 Sep 2025	8	53,205	4.84	67.1	72.8	21.1	34,586.50	*Clear, colourless, moderate sediment load, some organic matter (seaweed), no odour, no sheen*
0089_SW305	12 Sep 2025	7.93	49,802	4.88	66.3	10.8	21.4	-	*High sediment load, abundant organic matter, seaweed traces, clear, no sheen, no odour, no colour*
0089_SW309	10 Sep 2025	8.16	34,025	6.95	85.2	43.5	16.5	-	*Clear, low sediment load, no organic matter, no sheen, no turbidity*
0089_SW310	10 Sep 2025	8.09	53,489	5.67	74.2	-157.9	19	-	*Clear, low sediment load, no organic matter, no sheen, no turbidity*
0089_SW311	10 Sep 2025	8.12	51,835	14.77	194.6	-182.7	20.5	-	*Clear, odourless, low sediment load, no turbidity*
0089_SW317	16 Sep 2025	8.18	50,290	5.98	79.8	-76.5	20.5	-	*Clear, no odour, no turbidity, low sediment load, no sheen*
0089_SW318	16 Sep 2025	8.12	50,337	5.92	78.3	-84.5	19.7	-	*Low sediment, no turbidity, no sheen, no odour*
0089_SW319	16 Sep 2025	8.11	50,762	5.99	76.6	-84.3	18	-	*Clear, low sediment load, no turbidity, no sheen, odourless*
0089_SW353	11 Sep 2025	8.1	52,858	4.98	65.1	56.9	18.1	-	*Low turbidity, low sediment load, no sheen, colourless*
0089_SW370	12 Sep 2025	8.1	51,061	7.5	83.2	12.5	21	-	*Clear, low sediment load, no turbidity, colourless, odourless, no sheen*
0089_SW371	12 Sep 2025	7.9	50,039	6.15	84.5	13.7	22	-	*Colourless, no odour, low sediment load , abundance of organic matter.*
0089_SW372	12 Sep 2025	7.94	49,991	5.06	69.3	11.6	21.2	.	*No sheen, low sediment load, high sediment load, abundant organic matter (seaweed), no color, no odor*
0089_SW373	12 Sep 2025	7.91	49,678	4.72	64	12.7	21.4	-	*Colourless, low sediment load, no sheen, colorless, abundant organic matter*
0089_SW382	11 Sep 2025	8.1	53,448	21.03	250.3	-63.5	18.6	-	*Odourless, low sediment load, no sheen, clear, colourless*
0089_SW384	11 Sep 2025	8.11	52,631	5.8	74.5	52.8	18.2	-	*Colourless, no turbidity, low sediment load, no sheen*
0089_SW406	16 Sep 2025	8.11	51,517	6.08	72.5	-67.8	14.8	-	*Clear, low sediment load, no sheen, no turbidity*
0089_SW408	16 Sep 2025	8.1	50,966	5.73	69.4	-66.5	14.9	-	*Clear, low sediment load, no sheen, no turbidity, no odour*
0089_SW410	16 Sep 2025	8.06	52,081	12.16	123.5	-76.5	17.7	-	*Clear, no turbidity, low sediment load, no sheen*
0089_SW412	10 Sep 2025	8.18	52,880	5.93	79.1	-171.5	19.6	-	*Clear, odourless, low sediment load, no turbidity*
0089_SW414	10 Sep 2025	8.14	52,605	5.74	77	-173.5	19.9	-	*Clear, odourless, low sediment load, no turbidity*
0089_SW416	10 Sep 2025	8.13	34,005	5.13	68	-168.8	20.3	-	*Clear, low sediment load, no sheen, no turbidity*

			Monitoring Zone	Accomodation Area		Helicopter Support Facility		
			Location Code	0089_MW288	0089_MW289	0089_MW214	0089_MW214	0089_MW214
			Sample Type	Normal	Normal	Normal	Field Duplicate	Split Duplicate
			Date	17 Sep 2025	19 Sep 2025	15 Sep 2025	15 Sep 2025	15 Sep 2025
			Field ID	0089_MW288_250917	0089_MW289_250919	0089_MW214_250915	0089_QC109_250915	0089_QC209_250915
			Lab Report Number	EP2515408	EP2515823	EP2515408	EP2515408	1270698
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.13	0.59	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.02	<0.02	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.21	0.05	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	-
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		0.36	0.64	<0.01	<0.01	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.34	0.64	<0.01	<0.01	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	<0.01
Sum of PFHxS and PFOS	µg/L	0.002		0.34	0.64	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	<0.01

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Helicopter Support Facility				
			Location Code	0089_MW215	0089_MW216	0089_MW217	0089_MW220	0089_MW224
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	15 Sep 2025	15 Sep 2025	15 Sep 2025	15 Sep 2025	15 Sep 2025
			Field ID	0089_MW215_250915	0089_MW216_250915	0089_MW217_250915	0089_MW220_250915	0089_MW224_250915
			Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	0.10	0.06	<0.02	0.36	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	0.04	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	0.08	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.03	0.09	0.08	10.9	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	0.14	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.18	0.06	0.02	0.13	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	1.05	0.68	0.04	1.12	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	3.1	1.0	0.3	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		0.05	2.30	1.00	0.11	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		0.21	10.7	3.15	0.77	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	0.03	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	0.01	0.07	0.34	0.09	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		0.04	11.6	4.11	0.57	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	1.74	12.9	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	0.44	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		1.67	30.4	23.1	14.6	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		1.49	30.3	23.1	14.2	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		1.08	0.77	0.12	12.0	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Helicopter Support Facility				
			Location Code	0089_MW225	0089_MW226	0089_MW227	0089_MW228	0089_MW282
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	15 Sep 2025	16 Sep 2025	23 Sep 2025	16 Sep 2025	17 Sep 2025
			Field ID	0089_MW225_250915	0089_MW226_250916	0089_MW227_250923	0089_MW228_250016	0089_MW282_250917
			Lab Report Number	EP2515408	EP2515408	EP2515823	EP2515408	EP2515408
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	<0.02	0.40	0.198
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.087 #1
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	2.95
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	<0.01	<0.01	<0.01	<0.01	87.3
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	0.11	0.04
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	<0.02	0.33	0.299
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	<0.01	0.01	<0.01	1.00	9.49
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	1.5	0.14
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	1.49	0.394
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	<0.02	5.30	1.18
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	0.033
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	0.35	3.21
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	4.88	0.214
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	0.002
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	1.24	<0.005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.005
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		<0.01	0.01	<0.01	16.6	105
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		<0.01	0.01	<0.01	16.2	102
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		<0.01	0.01	<0.01	1.00	96.8
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Dredge Spoil / Careening Bay		WWTP		
			Location Code	0089_MW268	0089_MW269	0089_MW079	0089_MW161	0089_MW166
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	17 Sep 2025	17 Sep 2025	18 Sep 2025	23 Sep 2025	23 Sep 2025
			Field ID	0089_MW268_250917	0089_MW269_250917	0089_MW079_250918	0089_MW161_250923	0089_MW166_250923
			Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515823	EP2515823
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	0.17	0.04	0.29	0.04	0.04
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	0.49	<0.02	0.12
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	<0.01	0.36	1.17	0.78	3.54
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.07	<0.02	0.10	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.20	0.05	0.64	0.05	0.03
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.67	0.46	5.35	0.25	0.50
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	0.15	0.03	0.13
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		0.16	0.07	0.71	0.12	0.24
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	0.02	<0.02	0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	0.01	0.37	0.01	0.07
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		0.03	0.02	0.14	0.06	0.29
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		1.30	1.01	9.43	1.34	4.98
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		1.03	0.96	8.18	1.29	4.81
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		0.67	0.82	6.52	1.03	4.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	WWTP				
			Location Code	0089_MW171	0089_MW173	0089_MW195D	0089_MW195D	0089_MW195D
			Sample Type	Normal	Normal	Normal	Field Duplicate	Split Duplicate
			Date	23 Sep 2025	18 Sep 2025	18 Sep 2025	18 Sep 2025	18 Sep 2025
			Field ID	0089_MW171_250923	0089_MW173_250918	0089_MW195D_250918	0089_QC114_250918	0089_QC214_250918
			Lab Report Number	EP2515823	EP2515408	EP2515408	EP2515408	1270698
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	1.14	0.18	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		0.97	0.34	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	1.53	3.09	<0.01	<0.01	0.02
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		0.94	0.03	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.84	0.13	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	5.05	1.80	<0.01	<0.01	0.01 #2
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		0.5	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		0.14	0.06	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		1.61	0.43	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	0.28	0.16	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		0.47	0.11	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	-
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		13.5	6.33	<0.01	<0.01	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		10.7	5.83	<0.01	<0.01	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	0.02
Sum of PFHxS and PFOS	µg/L	0.002		6.58	4.89	<0.01	<0.01	0.03
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	0.03

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	WWTP				
			Location Code	0089_MW196	0089_MW199	0089_MW200	0089_MW202	0089_MW203
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	18 Sep 2025	18 Sep 2025	23 Sep 2025	19 Sep 2025	16 Sep 2025
			Field ID	0089_MW196_250918	0089_MW199_250918	0089_MW200_250923	0089_MW202_250919	0089_MW203_250916
			Lab Report Number	EP2515408	EP2515408	EP2515823	EP2515823	EP2515408
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	<0.01	<0.01	<0.01	0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	<0.01	<0.01	<0.01	<0.01	0.04
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		<0.01	<0.01	<0.01	0.01	0.04
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		<0.01	<0.01	<0.01	0.01	0.04
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		<0.01	<0.01	<0.01	0.01	0.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	WWTP	Demolition Ground			
			Location Code	0089_MW468	0089_MW139	0089_MW139	0089_MW139	0089_MW141
			Sample Type	Normal	Normal	Field Duplicate	Split Duplicate	Normal
			Date	18 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025
			Field ID	0089_MW468_250918	0089_MW139_250923	0089_QC117_250923	0089_QC217_250923	0089_MW141_250923
			Lab Report Number	EP2515408	EP2515823	EP2515823	1273096	EP2515823
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	<0.02	<0.01	0.32
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.05 #1
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	0.14
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	0.80
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	<0.01	<0.01	<0.01	<0.01	38.7
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.01	0.09
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	0.61
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	<0.01	<0.01	<0.01	<0.01	10.2
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.05	0.2
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	0.22
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	6.79
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	<0.01	0.98
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	0.76
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	-	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		<0.01	<0.01	<0.01	<0.1	59.8
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		<0.01	<0.01	<0.01	<0.05	58.2
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.002		<0.01	<0.01	<0.01	<0.01	48.9
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	<0.01	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Demolition Ground				
			Location Code	0089_MW142	0089_MW147	0089_MW147	0089_MW147	0089_MW149
			Sample Type	Normal	Normal	Field Duplicate	Split Duplicate	Normal
			Date	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025
			Field ID	0089_MW142_250923	0089_MW147_250923	0089_QC118_250923	0089_QC218_250923	0089_MW149_250923
			Lab Report Number	EP2515823	EP2515823	EP2515823	1273096	EP2515823
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.45	0.02	0.02	0.04	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.23	0.10	0.12	0.22	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		0.09	0.03	0.03	0.05	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	0.02	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		-	<0.05	<0.05	-	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		0.79	0.15	0.17	0.3	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.79	0.15	0.17	0.31	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	0.04	-
Sum of PFHxS and PFOS	µg/L	0.002		0.68	0.12	0.14	0.26	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	0.26	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	AVCAT Storage / Fuel Farm				
			Location Code	0089_MW238	0089_MW239	0089_MW240	0089_MW242	0089_MW243
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	17 Sep 2025	17 Sep 2025	17 Sep 2025	17 Sep 2025	17 Sep 2025
			Field ID	0089_MW238_250917	0089_MW239_250917	0089_MW240_250917	0089_MW242_250917	0089_MW243_250917
			Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	<0.01	<0.01	<0.01	<0.01	0.64
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.02	0.02	0.79	<0.01	0.09
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	0.06	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	0.04	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	0.04	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		0.02	0.02	0.93	<0.01	0.73
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.02	0.02	0.93	<0.01	0.73
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		0.02	0.02	0.79	<0.01	0.73
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	AVCAT Storage / Fuel Farm				
			Location Code	0089_MW245	0089_MW233	0089_MW236	0089_MW236	0089_MW236
			Sample Type	Normal	Normal	Normal	Field Duplicate	Split Duplicate
			Date	17 Sep 2025	16 Sep 2025	17 Sep 2025	17 Sep 2025	17 Sep 2025
			Field ID	0089_MW245_250917	0089_MW233_250916	0089_MW236_250917	0089_QC113_250917	0089_QC213_250917
			Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	1270698
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.02	0.16	0.16	0.22
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	0.13	0.27	0.51
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.02	0.04	23.4	21.2	36
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	0.04	0.04	0.06
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	0.26	0.27	0.37 #2
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	<0.01	<0.01	25.7	23.1	29 #2
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	0.10
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	0.30	0.31	0.41 #2
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	0.54	0.58	0.85
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	0.98	0.96	1.3
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	1.14	1.24	1.8 #2
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	0.10	0.10	0.12
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	-
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		0.02	0.04	52.8	48.2	71
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.02	0.04	51.3	46.7	68.5
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	38
Sum of PFHxS and PFOS	µg/L	0.002		0.02	0.04	49.1	44.3	65
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	66.8

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	AVCAT Storage / Fuel Farm		Fire Training Area		
			Location Code	0089_MW496	0089_MW516	0089_MW112	0089_MW109	0089_MW120
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	16 Sep 2025	16 Sep 2025	24 Sep 2025	19 Sep 2025	19 Sep 2025
			Field ID	0089_MW496_250916	0089_MW516_250916	0089_MW112_250919	0089_MW109_250919	0089_MW120_250919
			Lab Report Number	EP2515408	EP2515408	EP2515823	EP2515823	EP2515823
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	0.03	<0.02	0.10	0.05	0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	0.29	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		0.08	<0.02	0.30	<0.02	13.0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	5.42	0.98	33.2	0.02	0.38
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.05	<0.02	0.30	0.09	0.13
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.59	0.09	9.73	0.33	13.0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	0.2	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	0.02	0.90	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		0.10	0.07	1.31	0.04	0.28
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	0.06	0.05	0.65	<0.01	2.32
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	0.02	0.49	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	0.50	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		6.33	1.23	48.0	0.53	29.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		6.20	1.23	46.6	0.44	16.0
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		6.01	1.07	42.9	0.35	13.4
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Fire Training Area				
			Location Code	0089_MW121	0089_MW123	0089_MW124	0089_MW124	0089_MW124
			Sample Type	Normal	Normal	Normal	Field Duplicate	Split Duplicate
			Date	19 Sep 2025	19 Sep 2025	19 Sep 2025	19 Sep 2025	19 Sep 2025
			Field ID	0089_MW121_250919	0089_MW123_250919	0089_MW124_250919	0089_QC115_250919	0089_QC215_250919
			Lab Report Number	EP2515823	EP2515823	EP2515823	EP2515823	1273096
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	0.11	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.43	<0.01	0.01	0.02	0.03
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.05	0.04	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	-
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		0.48	0.15	0.01	0.02	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.48	0.15	0.01	0.02	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	0.03
Sum of PFHxS and PFOS	µg/L	0.002		0.48	0.04	0.01	0.02	0.03
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	0.03

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Fire Training Area				
			Location Code	0089_MW125	0089_MW126	0089_MW127	0089_MW128	0089_MW500
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	09 Sep 2025	09 Sep 2025	09 Sep 2025	19 Sep 2025	19 Sep 2025
			Field ID	0089_MW125_250909	0089_MW126_250909	0089_MW127_250909	0089_MW128_250919	0089_MW500_250919
			Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515823	EP2515823
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	0.06	<0.02	<0.02	<0.02	0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	0.83
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.04	<0.01	0.02	0.85	36.3
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.07	<0.02	<0.02	<0.02	0.05
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.28	<0.01	0.03	0.05	4.09
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		0.07	<0.02	<0.02	0.02	0.21
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	<0.01	0.44
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	0.03
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		0.52	<0.01	0.05	0.92	42.0
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.45	<0.01	0.05	0.92	41.1
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		0.32	<0.01	0.05	0.90	40.4
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage				
			Location Code	0089_MW255	0089_MW256	0089_MW257	0089_MW258	0089_MW259
			Sample Type	Normal	Normal	Normal	Normal	Normal
			Date	15 Sep 2025	15 Sep 2025	15 Sep 2025	15 Sep 2025	15 Sep 2025
			Field ID	0089_MW255_250915	0089_MW256_250915	0089_MW257_250915	0089_MW258_250915	0089_MW259_250915
			Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)					
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	0.05	1.87	<0.02	0.53	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	0.11	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	0.18	<0.02	0.18	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.30	3.85	0.30	5.20	0.05
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	0.59	<0.02	0.23	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		0.12	1.74	<0.02	0.48	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	4.56	10.1	0.07	1.41	0.02
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	0.4	<0.1	0.2	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		0.06	0.30	<0.02	0.17	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		0.32	4.25	0.06	0.94	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	0.03	0.23	0.01	0.12	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		0.06	0.78	0.11	0.66	0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	0.06	<0.05	0.07	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.002		5.50	24.5	0.55	10.2	0.09
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		5.38	21.8	0.55	9.30	0.09
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		4.86	14.0	0.37	6.61	0.07
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	-	-	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

			Monitoring Zone	Fire Station, Flammable / Hazardous Goods and Waste Storage, Ship Sullage			
			Location Code	0089_MW259	0089_MW259	0089_MW010	0089_MW553
			Sample Type	Field Duplicate	Split Duplicate	Normal	Normal
			Date	15 Sep 2025	15 Sep 2025	17 Sep 2025	17 Sep 2025
			Field ID	0089_QC110_250915	0089_QC210_250915	0089_MW010_250917	0089_MW553_250917
			Lab Report Number	EP2515408	1270698	EP2515408	EP2515408
	Unit	LOR	ADWG 2011 Health (v4.0 updated June 2025)				
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002	1	<0.02	<0.01	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.008	0.05	0.07	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01		<0.02	<0.01	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002	0.03	0.02	0.03 #2	0.20	0.03
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	µg/L	0.01		<0.1	<0.05	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		<0.02	<0.05	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		<0.02	0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	0.2	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		0.02	0.03	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005		<0.05	<0.01	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002		<0.02	<0.01	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005		<0.05	-	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002		<0.02	<0.05	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002		<0.02	<0.05	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002		<0.02	<0.05	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005		<0.05	<0.01	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005		<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005		<0.05	<0.01	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005		<0.05	<0.01	<0.05	<0.05
PFAS - Sums							
PFAS (Sum of Total)	µg/L	0.002		0.09	0.2	0.20	0.03
PFAS (Sum of Total)(WA DER List)	µg/L	0.002		0.09	0.15	0.20	0.03
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		-	0.07	-	-
Sum of PFHxS and PFOS	µg/L	0.002		0.07	0.1	0.20	0.03
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		-	0.1	-	-

Comments

#1 Reported Analyte LOR is higher than Requested Analyte LOR
Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the
#2 corresponding linear/branched standard.

Environmental Standards

NHMRC, June 2025, ADWG 2011 Health (v4.0 updated June 2025)

				Monitoring Zone	Accommodation Area	Demolition Ground			
				Location Code	0089_PW346	0089_PW329	0089_PW330	0089_PW331	0089_PW356
				Sample Type	Normal	Normal	Normal	Normal	Normal
				Date	12 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025
				Field ID	0089_PW346_250912	0089_PW329_250923	0089_PW330_250923	0089_PW331_250923	0089_PW356_250923
				Lab Report Number	EP2515408	EP2515823	EP2515823	EP2515823	EP2515823
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	0.54	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	0.05	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			0.59	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			0.59	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	0.59	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

Monitoring Zone					**Demolition Ground**		**Dredged Sediments**		
Location Code					0089_PW357	0089_PW358	0089_PW374	0089_PW375	0089_PW378
Sample Type					Normal	Normal	Normal	Normal	Normal
Date					23 Sep 2025	23 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025
Field ID					0089_PW357_250923	0089_PW358_250923	0089_PW374_250916	0089_PW375_250916	0089_PW378_250916
Lab Report Number					EP2515823	EP2515823	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.01	0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01	<0.01	0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01	<0.01	0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.01	0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	Fire Training Area				
				Location Code	0089_PW335	0089_PW340	0089_PW341	0089_PW362	0089_PW363
				Sample Type	Normal	Normal	Normal	Normal	Normal
				Date	09 Sep 2025	09 Sep 2025	09 Sep 2025	09 Sep 2025	09 Sep 2025
				Field ID	0089_PW335_250909	0089_PW340_250909	0089_PW341_250909	0089_PW362_250909	0089_PW363_250909
				Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	Fire Training Area			Helicopter Support Facility	
				Location Code	0089_PW363	0089_PW363	0089_PW364	0089_PW306	0089_PW307
				Sample Type	Field Duplicate	Split Duplicate	Normal	Normal	Normal
				Date	09 Sep 2025	09 Sep 2025	09 Sep 2025	10 Sep 2025	10 Sep 2025
				Field ID	0088_QC102_250909	0089_QC202_250909	0089_PW364_240909	0089_PW306_250910	0089_PW307_250910
				Lab Report Number	EP2515408	1270698	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.002	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.01	<0.01	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.002	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.05	<0.01	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.05	<0.002	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.002	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.01	<0.005	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.01	<0.002	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	-	<0.005	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.005	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.05	<0.002	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.005	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.005	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.05	<0.002	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.005	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.05	<0.002	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.01	<0.005	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.005	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.01	<0.005	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.01	<0.005	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.1	<0.002	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.05	<0.002	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	<0.01	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.002	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	<0.01	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	**Helicopter Support Facility**				
				Location Code	0089_PW308	0089_PW314	0089_PW315	0089_PW316	0089_PW405
				Sample Type	Normal	Normal	Normal	Normal	Normal
				Date	10 Sep 2025	10 Sep 2025	10 Sep 2025	10 Sep 2025	16 Sep 2025
				Field ID	0089_PW308_250910	0089_PW314_250910	0089_PW315_250910	0089_PW316_250910	0089_PW405_250916
				Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	Helicopter Support Facility				
				Location Code	0089_PW407	0089_PW407	0089_PW407	0089_PW409	0089_PW411
				Sample Type	Normal	Field Duplicate	Split Duplicate	Normal	Normal
				Date	16 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025	10 Sep 2025
				Field ID	0089_PW407_250916	0089_QC112_250916	0089_QC212_250916	0089_PW409_250916	0089_PW411_250910
				Lab Report Number	EP2515408	EP2515408	1270698	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.05	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.05	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.01	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.01	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	-	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.05	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.05	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.05	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.01	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.01	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.01	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01	<0.1	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01	<0.05	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	<0.01	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	Helicopter Support Facility		WWTP		
				Location Code	0089_PW413	0089_PW415	0089_PW304	0089_PW304	0089_PW304
				Sample Type	Normal	Normal	Normal	Field Duplicate	Split Duplicate
				Date	10 Sep 2025	10 Sep 2025	12 Sep 2025	12 Sep 2025	12 Sep 2025
				Field ID	0089_PW413_250910	0089_PW415_250910	0089_PW304_250912	0089_QC107_250912	0089_QC207_250912
				Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	1270698
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	-
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	WWTP				
				Location Code	0089_PW345	0089_PW350	0089_PW351	0089_PW352	0089_PW367
				Sample Type	Normal	Normal	Normal	Normal	Normal
				Date	12 Sep 2025	11 Sep 2025	11 Sep 2025	11 Sep 2025	12 Sep 2025
				Field ID	0089_PW345_250912	0089_PW350_250911	0089_PW351_250911	0089_PW352_250911	0089_PW367_250912
				Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01	<0.01	<0.01	0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01	<0.01	<0.01	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01	<0.01	<0.01	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	**WWTP**				
				Location Code	0089_PW367	0089_PW367	0089_PW368	0089_PW369	0089_PW380
				Sample Type	Field Duplicate	Split Duplicate	Normal	Normal	Normal
				Date	12 Sep 2025	12 Sep 2025	12 Sep 2025	12 Sep 2025	11 Sep 2025
				Field ID	0089_QC106_250912	0089_QC206_250912	0089_PW368_250912	0089_PW369_250912	0089_PW380_250911
				Lab Report Number	EP2515408	1270698	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	0.01	0.02	<0.01	0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01	0.02	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.05	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.05	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.01	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.01	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	-	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.05	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.05	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.05	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.01	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.01	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.01	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.002			0.01	<0.1	0.02	0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			0.01	<0.05	0.02	0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	0.02	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	0.01	0.02	0.02	0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	0.02	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	WWTP	
				Location Code	0089_PW381	0089_PW401
				Sample Type	Normal	Normal
				Date	11 Sep 2025	11 Sep 2025
				Field ID	0089_PW381_250911	0089_PW401_250911
				Lab Report Number	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality		
PFAS - Perfluoroalkyl Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.002			<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.002			<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.002			<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.002			<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.002	0.00023	2	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.002			<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.002		2	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	µg/L	0.01			<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.002			<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.002			<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002			<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.002			<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.002			<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.002	19	10	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.002			<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.005			<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.002			<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002			<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.005			<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide						
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.005			<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002			<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.005			<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.005			<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002			<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.005			<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.002			<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.005			<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.005			<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.005			<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.005			<0.05	<0.05
PFAS - Sums						
PFAS (Sum of Total)	µg/L	0.002			<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.002			<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-
Sum of PFHxS and PFOS	µg/L	0.002		2	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	**Demolition Ground**				
				Location Code	0089_SW150	0089_SW152	0089_SW154	0089_SW154	0089_SW154
				Sample Type	Normal	Normal	Normal	Field Duplicate	Split Duplicate
				Date	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025
				Field ID	0089_SW150_250923	0089_SW152_250923	0089_SW154_250923	0088_QC116_250923	0089_QC216_250923
				Lab Report Number	EP2515823	EP2515823	EP2515823	EP2515823	1273096
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.05
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.01
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	-
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.05
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.01
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.1
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.05
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	<0.01

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

Monitoring Zone					Demolition Ground	Dredged Sediments			Fire Training Area
Location Code					0089_SW156	0089_SW317	0089_SW318	0089_SW319	0089_SW130
Sample Type					Normal	Normal	Normal	Normal	Normal
Date					23 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025	09 Sep 2025
Field ID					0089_SW156_250923	0089_SW317_250916	0089_SW318_250916	0089_SW319_250916	0089_SW130_250909
Lab Report Number					EP2515823	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

Monitoring Zone					Fire Training Area		Helicopter Support Facility		
Location Code					0089_SW132	0089_SW134	0089_SW309	0089_SW310	0089_SW310
Sample Type					Normal	Normal	Normal	Normal	Field Duplicate
Date					09 Sep 2025	09 Sep 2025	10 Sep 2025	10 Sep 2025	10 Sep 2025
Field ID					0089_SW132_250909	0089_SW134_250909	0089_SW309_250910	0089_SW310_250910	0089_QC104_250910
Lab Report Number					EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	Helicopter Support Facility				
				Location Code	0089_SW310	0089_SW311	0089_SW406	0089_SW408	0089_SW410
				Sample Type	Split Duplicate	Normal	Normal	Normal	Normal
				Date	10 Sep 2025	10 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025
				Field ID	0089_QC204_250910	0089_SW311_250910	0089_SW406_250016	0089_SW408_250916	0089_SW410_250916
				Lab Report Number	1270698	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.05	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.01	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			-	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.05	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.01	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.1	<0.01	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.05	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			<0.01	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	Helicopter Support Facility			WWTP	
				Location Code	0089_SW412	0089_SW414	0089_SW416	0089_SW305	0089_SW353
				Sample Type	Normal	Normal	Normal	Normal	Normal
				Date	10 Sep 2025	10 Sep 2025	10 Sep 2025	12 Sep 2025	11 Sep 2025
				Field ID	0089_SW412_250910	0089_SW414_250910	0089_SW416_250910	0089_SW305_250912	0089_SW353_250911
				Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	<0.01	<0.01	0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.01	<0.01	<0.01	0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	<0.01	<0.01	0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	<0.01	<0.01	0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	**WWTP**				
				Location Code	0089_SW370	0089_SW371	0089_SW371	0089_SW371	0089_SW372
				Sample Type	Normal	Normal	Field Duplicate	Split Duplicate	Normal
				Date	12 Sep 2025	12 Sep 2025	12 Sep 2025	12 Sep 2025	12 Sep 2025
				Field ID	0089_SW370_250912	0089_SW371_250912	0089_QC108_250912	0089_QC208_250912	0089_SW372_250912
				Lab Report Number	EP2515408	EP2515408	EP2515408	1270698	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality					
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	<0.01	0.02	0.03	<0.01	0.02
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.05	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.01	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			<0.05	<0.05	<0.05	-	<0.05
PFAS - Perfluoroalkyl Sulfonamide									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.05	<0.02
PFAS - Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.01	<0.05
PFAS - Sums									
PFAS (Sum of Total)	µg/L	0.01			<0.01	0.02	0.03	<0.1	0.02
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			<0.01	0.02	0.03	<0.05	0.02
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	<0.01	-
Sum of PFHxS and PFOS	µg/L	0.01		2	<0.01	0.02	0.03	<0.01	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	<0.01	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

				Monitoring Zone	**WWTP**			
				Location Code	0089_SW373	0089_SW382	0089_SW383	0089_SW384
				Sample Type	Normal	Normal	Normal	Normal
				Date	12 Sep 2025	11 Sep 2025	11 Sep 2025	11 Sep 2025
				Field ID	0089_SW373_250912	0089_SW382_250911	0089_SW383_250911	0089_SW384_250911
				Lab Report Number	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR	PFAS NEMP 3.0 2025 Freshwater 99%	PFAS NEMP 3.0 2025 Recreational water quality				
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorononane sulfonate (PFNS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.00023	2	0.02	<0.01	<0.01	<0.01
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		2	<0.01	<0.01	<0.01	<0.01
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.05			<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid (PFDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	µg/L	0.01	19	10	<0.01	<0.01	<0.01	<0.01
Perfluoropentanoic acid (PFPeA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01			<0.02	<0.02	<0.02	<0.02
Perfluoro-n-hexadecanoic acid (PFHxDA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamide								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02			<0.02	<0.02	<0.02	<0.02
PFAS - Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05			<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01			<0.05	<0.05	<0.05	<0.05
PFAS - Sums								
PFAS (Sum of Total)	µg/L	0.01			0.02	<0.01	<0.01	<0.01
PFAS (Sum of Total)(WA DER List)	µg/L	0.01			0.02	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01			-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.01		2	0.02	<0.01	<0.01	<0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01			-	-	-	-

Environmental Standards
HEPA, March 2025, PFAS NEMP 3.0 2025 Freshwater 99%
HEPA, March 2025, PFAS NEMP 3.0 2025 Recreational water quality

Monitoring Zone			**Accommodation Area**	**Demolition Ground**			
Location Code			0089_SD346	0089_SD329	0089_SD330	0089_SD331	0089_SD356
Sample Type			Normal	Normal	Normal	Normal	Normal
Date			12 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025	23 Sep 2025
Field ID			0089_SD346_250912	0089_SD329_250923	0089_SD330_250923	0089_SD331_250923	0089_SD356_250923
Lab Report Number			EP2515408	EP2515823	EP2515823	EP2515823	EP2515823
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-

Monitoring Zone			**Demolition Ground**		**Dredged Sediments**		
Location Code			0089_SD357	0089_SD358	0089_SD374	0089_SD375	0089_SD378
Sample Type			Normal	Normal	Normal	Normal	Normal
Date			23 Sep 2025	23 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025
Field ID			0089_SD357_250923	0089_SD358_250923	0089_SD374_250916	0089_SD375_250916	0089_SD378_250916
Lab Report Number			EP2515823	EP2515823	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-

Monitoring Zone			**Fire Training Area**				
Location Code			0089_SD335	0089_SD340	0089_SD341	0089_SD362	0089_SD363
Sample Type			Normal	Normal	Normal	Normal	Normal
Date			09 Sep 2025	09 Sep 2025	09 Sep 2025	09 Sep 2025	09 Sep 2025
Field ID			0089_SD335_250909	0089_SD340_250909	0089_SD341_250909	0089_SD362_250909	0089_SD363_250909
Lab Report Number			EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-

Monitoring Zone			**Fire Training Area**			**Helicopter Support Facility**	
Location Code			0089_SD363	0089_SD363	0089_SD364	0089_SD306	0089_SD307
Sample Type			Field Duplicate	Split Duplicate	Normal	Normal	Normal
Date			09 Sep 2025	09 Sep 2025	09 Sep 2025	10 Sep 2025	10 Sep 2025
Field ID			0089_QC101_250909	0089_QC201_250909	0089_SD364_250909	0089_SD306_250910	0089_SD307_250910
Lab Report Number			EP2515408	1270698	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	<0.005	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.005	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-

Monitoring Zone			**Helicopter Support Facility**				
Location Code			0089_SD307	0089_SD307	0089_SD308	0089_SD314	0089_SD315
Sample Type			Field Duplicate	Split Duplicate	Normal	Normal	Normal
Date			10 Sep 2025	10 Sep 2025	10 Sep 2025	10 Sep 2025	10 Sep 2025
Field ID			0089_QC103_250910	0089_QC203_250910	0089_SD308_250910	0089_SD314_250910	0089_SD315_250910
Lab Report Number			EP2515408	1270698	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	<0.005	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.005	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-

Monitoring Zone			**Helicopter Support Facility**				
Location Code			0089_SD316	0089_SD405	0089_SD405	0089_SD405	0089_SD407
Sample Type			Normal	Normal	Field Duplicate	Split Duplicate	Normal
Date			10 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025	16 Sep 2025
Field ID			0089_SD316_250910	0089_SD405_250916	0089_QC111_250916	0089_QC211_250916	0089_SD407_250916
Lab Report Number			EP2515408	EP2515408	EP2515408	1270698	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	<0.005	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.005	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.01	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.05	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.005	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	<0.005	-

Monitoring Zone			**Helicopter Support Facility**				**WWTP**
Location Code			0089_SD409	0089_SD411	0089_SD413	0089_SD415	0089_SD304
Sample Type			Normal	Normal	Normal	Normal	Normal
Date			16 Sep 2025	10 Sep 2025	10 Sep 2025	10 Sep 2025	12 Sep 2025
Field ID			0089_SD409_250916	0089_SD411_250910	0089_SD413_250910	0089_SD415_250910	0089_SD304_250912
Lab Report Number			EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-

Monitoring Zone			**WWTP**				
Location Code			0089_SD345	0089_SD350	0089_SD351	0089_SD352	0089_SD367
Sample Type			Normal	Normal	Normal	Normal	Normal
Date			12 Sep 2025	11 Sep 2025	11 Sep 2025	11 Sep 2025	12 Sep 2025
Field ID			0089_SD345_250912	0089_SD350_250911	0089_SD351_250911	0089_SD352_250911	0089_SD367_250912
Lab Report Number			EP2515408	EP2515408	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-

Monitoring Zone			**WWTP**				
Location Code			0089_SD367	0089_SD367	0089_SD368	0089_SD369	0089_SD380
Sample Type			Field Duplicate	Split Duplicate	Normal	Normal	Normal
Date			12 Sep 2025	12 Sep 2025	12 Sep 2025	12 Sep 2025	11 Sep 2025
Field ID			0089_QC105_250912	0089_QC205_250912	0089_SD368_250912	0089_SD369_250912	0089_SD380_250911
Lab Report Number			EP2515408	1270698	EP2515408	EP2515408	EP2515408
	Unit	LOR					
PFAS - Perfluoroalkyl Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	<0.005	-	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.005	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide							
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.01	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005
PFAS - Sums							
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.05	<0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.005	<0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	<0.005	-	-	-

Monitoring Zone			**WWTP**	
Location Code			0089_SD381	0089_SD401
Sample Type			Normal	Normal
Date			11 Sep 2025	11 Sep 2025
Field ID			0089_SD381_250911	0089_SD401_250911
Lab Report Number			EP2515408	EP2515408
	Unit	LOR		
PFAS - Perfluoroalkyl Sulfonic Acids				
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorononane sulfonate (PFNS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Carboxylic Acids				
Perfluorobutanoic acid (PFBA)	mg/kg	0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	<0.0005	<0.0005
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	<0.0002	<0.0002
PFAS - Perfluoroalkyl Sulfonamide				
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamidoethanol (MEFOSE)	mg/kg	0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	<0.0002	<0.0002
PFAS - Fluorotelomer Sulfonic Acids				
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
6:2 Fluorotelomer Sulfonate (6:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005	<0.0005	<0.0005
PFAS - Sums				
PFAS (Sum of Total)	mg/kg	0.0002	<0.0002	<0.0002
PFAS (Sum of Total)(WA DER List)	mg/kg	0.0002	<0.0002	<0.0002
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.005	-	-
Sum of PFHxS and PFOS	mg/kg	0.0002	<0.0002	<0.0002
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-

Appendix D

Equipment Calibration

HMAS Stirling - September 2025

Date of bump test	Site ID	Unit Brand/Model	Ambient Air Oxygen Calibration	Zero oxygen solution Calibration (%)	Standard Concentrations	Bump test reading	Bump test readings within ±3%?	Ambient Temperature (°C)	Comments	Test By (Name)	Tester's Signature
23/09/2025	HMAS Stirling	YSI Pro 20B120527	100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 (Y) / N pH: 7.00 (Y) / N EC: 1,413µS/cm (Y) / N EC: 12.88 mS EC: 35 mS	pH: 4.07 pH: 6.93 EC: 1451 EC: 12.53 EC: 33.37	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N	17.0		[redacted]	
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				
			100% Saturation Y / N	0% Calibration Y / N	pH: 4.00 Y / N pH: 7.00 Y / N EC: 1,413µS/cm Y / N	pH: pH: EC:	pH 4.00: (± pH 0.12) Y / N pH 7.00: (± pH 0.12) Y / N EC 1,413µS/cm (± 42.39µS/cm) Y / N				

Date of bump test	Site ID	Unit Brand/Model	Ambient Air Oxygen Calibration	Zero oxygen solution Calibration (%)	Standard Concentrations	Bump test reading	Bump test readings within ±3%?	Ambient Temperature (°C)	Comments	Test By (Name)	Tester's Signature
9/09/25	Shirley	YSI Pro Quattro 21G105322	~~Calibration~~ BUMP 100% (Y) N Saturation 103%	~~Calibration~~ BUMP 0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) N	pH: 4.06 pH: 7.08 EC: 1,477	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) (Y) N	14.6°C	EC: 35 ms/cm EC: 12.88 ms/cm	(Y)/N EC: 35169 (Y) N EC: 13055 SL/SB	[redacted]
10/9/25	Shirley	YSi Pro Quattro 21G105322	100% (Y) N Saturation 88	0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm Y / N	pH: 4.07 pH: 7.05 EC: 1,482	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) (Y) N	14.4°C	EC: 35 ms/cm EC: 12,88 ms/cm	(Y)/N EC: 34,780 (Y)N EC: 13,470 SL/SB	[redacted]
11/9/25	Shirley HMAS	YSi Pro Quattro 21G105322	100% (Y) N Saturation 89.4	0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) N	pH: 4.08 pH: 7.03 EC: 1,431	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) (Y) N	15.5°C	EC: 12,88 ms/cm EC: 35 ms/cm	(Y)/N EC: 13030 (Y)N EC: 34,120	
15/9/25	Shirley HMAS	YSi ProQuattro 21G105222	100% (Y) N Saturation 89.5	0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) N	pH: 4.16 pH: 6.98 EC: 1,520	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) Y / (N)		solution changed EC: 12,88 ms/cm EC: 35 ms/cm	(Y)N EC: 12,691 (Y)N EC: 33,086	
15/9/25	Shirley HMAS	YSI Pro Quattro 21G105322	100% (Y) N Saturation 90.2	0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) N	pH: 4.12 pH: 7.03 EC: 1,492	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) Y (N)	14.9°C	EC: 12,88 ms/cm EC: 35 ms/cm	(Y)N EC: 12890 ms/cm (Y)N EC: 33,508 ms/cm	
17/9/25 8:30AM	Shirley HMAS	YSi pro Quattro	100% (Y) N Saturation 94.7	0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) N	pH: 4.11 pH: 6.99 EC: 1,435	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) (Y) N	16.4°C	EC: 12,88 ms/cm EC: 35 ms/cm	(Y)N EC: 12,385 (Y)N EC: 32,692	
18/9/25	Shirley	YSi Pro Quattro	100% Y N Saturation	0% Y N Calibration	pH: 4.00 (Y) N pH: 7.00 (Y) N EC: 1,413µS/cm (Y) N	pH: 4.15 pH: 6.95 EC: 1450	pH 4.00: (± pH 0.12) (Y) N pH 7.00: (± pH 0.12) (Y) N EC 1,413µS/cm (± 42.39µS/cm) Y (N)	16.2	EC: 12343 (Y)/N EC: 32,580 (Y)N.		

GK Environmental EQUIPMENT

Calibration Report

Multi-Parameter Water Quality Instrument

Customer:
Contact:

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 20B120527
Cable length: 1m (18K100836)

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	172.90 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 58.55
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 4 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	Galvanic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (20D100817)	Check Temp NATA	Room Temp	17.2	-0.1	°C	NA	17.1	°C
pH (25D)	pH 7.00	398528	7.01	-11.10	mV	7.1	7.01	pH
pH (25D)	pH 4.00	440784	4.00	161.80	mV	4.07	4.00	pH
Conductivity (20D100817)	2764 µs/cm at 25°C	25/2001	2764	GLP	5.11	2726	2764	µs/cm
ORP (200124SEN506102)	Zobell A & B	25/2001	246	246	mV	241.3	242.3	mV
Zero DO (20H100658)	NaSO3 in distilled water	10175	0.0	NA	NA	0.4	0.0	%
100% DO (20H100658)	100% Air Saturation	Air	100.0	4.44	uA	101	100.0	%

Calibrated by: [redacted]

Calibration Date: 18-Sep-25
Next Due: 17-Mar-26

GK Environmental EQUIPMENT

Calibration Report

Multi-Parameter Water Quality Instrument

Customer: GHD
Contact: Connor A

Manufacturer: YSI
Instrument: Professional Plus with Quatro cable
Serial #: 21G105322
Cable length: 1m 21F100351

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 30 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	0.0.78
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	173.60 mV
pH slope		✓	55 to 60 mV/pH, ideal 59mV 58.78
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	variance range ± 20mV 12 mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	Galvanic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

This is to certify that the above instrument has been calibrated to the following specifications:

						Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Span**	**Units**	**Before**	**After**	**Units**
Temperature (22D100150)	Check Temp NATA	Room Temp	17.3	0	°C	NA	17.3	°C
pH (24K)	pH 7.00	398528	7.01	-20.30	mV	7.08	7.01	pH
pH (24K)	pH 4.00	440784	4.00	153.30	mV	4.03	4.00	pH
Conductivity (22D100150)	2764 µs/cm at 25°C	25/2001	2764	GLP	4.96	2753	2764	µs/cm
ORP (20012SEN605102)	Zobell A & B	25/2001	246	246	mV	239.9	234.3	mV
Zero DO (23E100583)	NaSO3 in distilled water	10175	0.0	NA	NA	0	0.0	%
100% DO (23E100583)	100% Air Saturation	Air	100.0	4.9	uA	97.2	100.0	%

Calibrated by: [redacted]

Calibration Date: 05-Sep-25
Next Due: 04-Mar-26

Appendix E

Laboratory Certificates and Chain of Custody

CERTIFICATE OF ANALYSIS

Work Order	: **EP2515408**	Page	: 1 of 102
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 19-Sep-2025 16:30
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 24-Sep-2025
C-O-C number	: 88337	Issue Date	: 29-Dec-2025 10:49
Sampler	: [redacted]		
Site	: WA_0089_PFASOMP_25		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 160		
No. of samples analysed	: 160		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Analyst	Perth Inorganics, Wangara, WA
[redacted]	SENIOR LAB TECH	Perth Organics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: High LCS recovery deemed acceptable as all associated analyte results are less than LOR for the particular instrument sample run.
- EP231X-LL: LOR has been raised for analyte "PFDS" on sample "EP2515408-021" due to matrix interferences.
- Amendment (24/12/2025): This report has been amended and re-released to allow the reporting of additional analytical data, specifically method EP231X (PFHxDA) for samples EP2515408_001 to 020, 022 to 040, 073 to 122, 125 to 132, 135 to 140, 142 to 145, 147, and 149 to 162; method EP231X-LL (PFNS) for samples EP2515408_021 and 123
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: FRESH WATER (Matrix: WATER)				Sample ID	0089_QC303_250911	0089_QC104_250910	0089_QC305_250915	0089_QC109_250915	0089_QC405_250915
				Sampling date / time	11-Sep-2025 20:32	10-Sep-2025 20:49	15-Sep-2025 21:55	15-Sep-2025 22:07	15-Sep-2025 22:14
Compound	CAS Number	LOR	Unit		EP2515408-125	EP2515408-126	EP2515408-151	EP2515408-152	EP2515408-153
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: FRESH WATER (Matrix: WATER)				Sample ID	0089_QC303_250911	0089_QC104_250910	0089_QC305_250915	0089_QC109_250915	0089_QC405_250915
				Sampling date / time	11-Sep-2025 20:32	10-Sep-2025 20:49	15-Sep-2025 21:55	15-Sep-2025 22:07	15-Sep-2025 22:14
Compound	CAS Number	LOR	Unit		EP2515408-125	EP2515408-126	EP2515408-151	EP2515408-152	EP2515408-153
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: FRESH WATER (Matrix: WATER)				Sample ID	0089_QC303_250911	0089_QC104_250910	0089_QC305_250915	0089_QC109_250915	0089_QC405_250915
				Sampling date / time	11-Sep-2025 20:32	10-Sep-2025 20:49	15-Sep-2025 21:55	15-Sep-2025 22:07	15-Sep-2025 22:14
Compound	CAS Number	LOR	Unit		EP2515408-125	EP2515408-126	EP2515408-151	EP2515408-152	EP2515408-153
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**102**	**106**	**105**	**112**	**118**
13C8-PFOA	----	0.02	%		**101**	**97.8**	**103**	**103**	**104**

Analytical Results

Sub-Matrix: FRESH WATER (Matrix: WATER)				Sample ID	0089_QC110_250915	0088_QC102_250909	0089_QC114_250918	0089_MW079_250918	----
				Sampling date / time	15-Sep-2025 22:16	09-Sep-2025 14:53	18-Sep-2025 10:34	18-Sep-2025 10:37	----
Compound	CAS Number	LOR	Unit		EP2515408-154	EP2515408-155	EP2515408-161	EP2515408-162	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.10**	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.29**	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.64**	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	<0.01	<0.01	**5.35**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.49**	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.05**	<0.01	<0.01	**1.17**	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	<0.02	**0.14**	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.71**	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.15**	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.37**	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: FRESH WATER (Matrix: WATER)				Sample ID	0089_QC110_250915	0088_QC102_250909	0089_QC114_250918	0089_MW079_250918	----
				Sampling date / time	15-Sep-2025 22:16	09-Sep-2025 14:53	18-Sep-2025 10:34	18-Sep-2025 10:37	----
Compound	CAS Number	LOR	Unit		EP2515408-154	EP2515408-155	EP2515408-161	EP2515408-162	--------
					Result	Result	Result	Result	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.09**	<0.01	<0.01	**9.43**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.07**	<0.01	<0.01	**6.52**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.09**	<0.01	<0.01	**8.18**	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: FRESH WATER (Matrix: WATER)				Sample ID	0089_QC110_250915	0088_QC102_250909	0089_QC114_250918	0089_MW079_250918	----
				Sampling date / time	15-Sep-2025 22:16	09-Sep-2025 14:53	18-Sep-2025 10:34	18-Sep-2025 10:37	----
Compound	CAS Number	LOR	Unit		EP2515408-154	EP2515408-155	EP2515408-161	EP2515408-162	--------
					Result	Result	Result	Result	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**104**	**105**	**107**	**107**	**----**
13C8-PFOA	----	0.02	%		**102**	**103**	**103**	**102**	**----**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW125_250909	0089_MW126_250909	0089_MW127_250909	0089_MW173_250918	0089_MW196_250918
				Sampling date / time	09-Sep-2025 15:51	09-Sep-2025 14:59	09-Sep-2025 15:45	18-Sep-2025 11:11	18-Sep-2025 10:17
Compound	CAS Number	LOR	Unit		EP2515408-001	EP2515408-002	EP2515408-003	EP2515408-005	EP2515408-006
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.06**	<0.02	<0.02	**0.18**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.07**	<0.02	<0.02	**0.13**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.28**	<0.01	**0.03**	**1.80**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.34**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	<0.01	**0.02**	**3.09**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.11**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	<0.02	<0.02	**0.43**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.06**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.16**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW125_250909	0089_MW126_250909	0089_MW127_250909	0089_MW173_250918	0089_MW196_250918
				Sampling date / time	09-Sep-2025 15:51	09-Sep-2025 14:59	09-Sep-2025 15:45	18-Sep-2025 11:11	18-Sep-2025 10:17
Compound	CAS Number	LOR	Unit		EP2515408-001	EP2515408-002	EP2515408-003	EP2515408-005	EP2515408-006
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.52**	<0.01	**0.05**	**6.33**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.32**	<0.01	**0.05**	**4.89**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.45**	<0.01	**0.05**	**5.83**	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW125_250909	0089_MW126_250909	0089_MW127_250909	0089_MW173_250918	0089_MW196_250918
				Sampling date / time	09-Sep-2025 15:51	09-Sep-2025 14:59	09-Sep-2025 15:45	18-Sep-2025 11:11	18-Sep-2025 10:17
Compound	CAS Number	LOR	Unit		EP2515408-001	EP2515408-002	EP2515408-003	EP2515408-005	EP2515408-006
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**99.3**	**99.1**	**102**	**97.0**	**98.7**
13C8-PFOA	----	0.02	%		**99.5**	**99.4**	**99.2**	**98.9**	**102**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)

Compound	CAS Number	LOR	Unit	Sample ID	0089_MW199_250918	0089_MW203_250916	0089_MW195D_250918	0089_MW468_250918	0089_MW288_250917
				Sampling date / time	18-Sep-2025 10:15	16-Sep-2025 16:41	18-Sep-2025 10:13	18-Sep-2025 10:22	17-Sep-2025 10:45
					EP2515408-007	EP2515408-008	EP2515408-009	EP2515408-010	EP2515408-011
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.04**	<0.01	<0.01	**0.21**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.13**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW199_250918	0089_MW203_250916	0089_MW195D_250918	0089_MW468_250918	0089_MW288_250917
				Sampling date / time	18-Sep-2025 10:15	16-Sep-2025 16:41	18-Sep-2025 10:13	18-Sep-2025 10:22	17-Sep-2025 10:45
Compound	CAS Number	LOR	Unit		EP2515408-007	EP2515408-008	EP2515408-009	EP2515408-010	EP2515408-011
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.04**	<0.01	<0.01	**0.36**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.04**	<0.01	<0.01	**0.34**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.04**	<0.01	<0.01	**0.34**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW199_250918	0089_MW203_250916	0089_MW195D_250918	0089_MW468_250918	0089_MW288_250917
				Sampling date / time	18-Sep-2025 10:15	16-Sep-2025 16:41	18-Sep-2025 10:13	18-Sep-2025 10:22	17-Sep-2025 10:45
Compound	CAS Number	LOR	Unit		EP2515408-007	EP2515408-008	EP2515408-009	EP2515408-010	EP2515408-011
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**99.8**	**98.5**	**101**	**101**	**102**
13C8-PFOA	----	0.02	%		**102**	**101**	**102**	**97.9**	**99.1**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250915	0089_MW215_250915	0089_MW216_250915	0089_MW217_250915	0089_MW224_250915
				Sampling date / time	15-Sep-2025 22:09	15-Sep-2025 22:11	15-Sep-2025 21:59	15-Sep-2025 22:15	15-Sep-2025 22:18
Compound	CAS Number	LOR	Unit		EP2515408-012	EP2515408-013	EP2515408-014	EP2515408-015	EP2515408-017
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.10**	**0.06**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.18**	**0.06**	**0.02**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**1.05**	**0.68**	**0.04**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.03**	**0.09**	**0.08**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**3.1**	**1.0**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.04**	**11.6**	**4.11**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.21**	**10.7**	**3.15**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.05**	**2.30**	**1.00**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.01**	**0.07**	**0.34**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250915	0089_MW215_250915	0089_MW216_250915	0089_MW217_250915	0089_MW224_250915
				Sampling date / time	15-Sep-2025 22:09	15-Sep-2025 22:11	15-Sep-2025 21:59	15-Sep-2025 22:15	15-Sep-2025 22:18
Compound	CAS Number	LOR	Unit		EP2515408-012	EP2515408-013	EP2515408-014	EP2515408-015	EP2515408-017
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**1.74**	**12.9**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	**0.44**	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**1.67**	**30.4**	**23.1**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**1.08**	**0.77**	**0.12**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**1.49**	**30.3**	**23.1**	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW214_250915	0089_MW215_250915	0089_MW216_250915	0089_MW217_250915	0089_MW224_250915
				Sampling date / time	15-Sep-2025 22:09	15-Sep-2025 22:11	15-Sep-2025 21:59	15-Sep-2025 22:15	15-Sep-2025 22:18
Compound	CAS Number	LOR	Unit		EP2515408-012	EP2515408-013	EP2515408-014	EP2515408-015	EP2515408-017
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**96.6**	**100**	**97.0**	**100**	**99.3**
13C8-PFOA	----	0.02	%		**98.4**	**101**	**99.5**	**98.5**	**97.8**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW225_250915	0089_MW226_250916	0089_MW228_250016	0089_MW282_250917	0089_MW268_250917
				Sampling date / time	15-Sep-2025 22:08	16-Sep-2025 12:30	16-Sep-2025 11:22	17-Sep-2025 10:43	17-Sep-2025 10:46
Compound	CAS Number	LOR	Unit		EP2515408-018	EP2515408-019	EP2515408-020	EP2515408-021	EP2515408-022
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.01	µg/L		----	----	----	**0.04**	----
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	**0.11**	----	**0.07**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.002	µg/L		----	----	----	**0.198**	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.40**	----	**0.17**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.002	µg/L		----	----	----	**0.299**	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.33**	----	**0.20**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.002	µg/L		----	----	----	**9.49**	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.01**	**1.00**	----	**0.67**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.002	µg/L		----	----	----	**2.95**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.002	µg/L		----	----	----	**87.3**	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.002	µg/L		----	----	----	<0.002	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.002	µg/L		----	----	----	<0.087	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.01	µg/L		----	----	----	**0.14**	----
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**1.5**	----	<0.1

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW225_250915	0089_MW226_250916	0089_MW228_250016	0089_MW282_250917	0089_MW268_250917
				Sampling date / time	15-Sep-2025 22:08	16-Sep-2025 12:30	16-Sep-2025 11:22	17-Sep-2025 10:43	17-Sep-2025 10:46
Compound	CAS Number	LOR	Unit		EP2515408-018	EP2515408-019	EP2515408-020	EP2515408-021	EP2515408-022
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.002	µg/L		----	----	----	**0.214**	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**4.88**	----	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.002	µg/L		----	----	----	**1.18**	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**5.30**	----	**0.16**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.002	µg/L		----	----	----	**0.394**	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**1.49**	----	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.002	µg/L		----	----	----	**3.21**	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.35**	----	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.002	µg/L		----	----	----	**0.033**	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.002	µg/L		----	----	----	<0.002	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.002	µg/L		----	----	----	<0.002	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.002	µg/L		----	----	----	<0.002	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	µg/L		----	----	----	<0.002	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.005	µg/L		----	----	----	<0.005	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.005	µg/L		----	----	----	<0.005	----
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW225_250915	0089_MW226_250916	0089_MW228_250016	0089_MW282_250917	0089_MW268_250917
				Sampling date / time	15-Sep-2025 22:08	16-Sep-2025 12:30	16-Sep-2025 11:22	17-Sep-2025 10:43	17-Sep-2025 10:46
Compound	CAS Number	LOR	Unit		EP2515408-018	EP2515408-019	EP2515408-020	EP2515408-021	EP2515408-022
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.002	µg/L		----	----	----	**0.002**	----
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.005	µg/L		----	----	----	<0.005	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.005	µg/L		----	----	----	<0.005	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.005	µg/L		----	----	----	<0.005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.005	µg/L		----	----	----	<0.005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.002	µg/L		----	----	----	<0.002	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.002	µg/L		----	----	----	<0.002	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.005	µg/L		----	----	----	<0.005	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW225_250915	0089_MW226_250916	0089_MW228_250016	0089_MW282_250917	0089_MW268_250917
				Sampling date / time	15-Sep-2025 22:08	16-Sep-2025 12:30	16-Sep-2025 11:22	17-Sep-2025 10:43	17-Sep-2025 10:46
Compound	CAS Number	LOR	Unit		EP2515408-018	EP2515408-019	EP2515408-020	EP2515408-021	EP2515408-022
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.005	µg/L		----	----	----	<0.005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**1.24**	----	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.005	µg/L		----	----	----	<0.005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.005	µg/L		----	----	----	<0.005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.002	µg/L		----	----	----	**105**	----
Sum of PFAS	----	0.01	µg/L		<0.01	**0.01**	**16.6**	----	**1.30**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.002	µg/L		----	----	----	**96.8**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.01**	**1.00**	----	**0.67**
Sum of PFAS (WA DER List)	----	0.002	µg/L		----	----	----	**102**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.01**	**16.2**	----	**1.03**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.002	%		----	----	----	**107**	----
13C4-PFOS	----	0.02	%		**102**	**96.9**	**96.1**	----	**110**
13C8-PFOA	----	0.002	%		----	----	----	**98.9**	----
13C8-PFOA	----	0.02	%		**100**	**98.3**	**106**	----	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW269_250917	0089_MW233_250916	0089_MW236_250917	0089_MW238_250917	0089_MW239_250917
				Sampling date / time	17-Sep-2025 10:41	16-Sep-2025 16:12	17-Sep-2025 10:48	17-Sep-2025 10:50	17-Sep-2025 10:53
Compound	CAS Number	LOR	Unit		EP2515408-023	EP2515408-024	EP2515408-025	EP2515408-026	EP2515408-027
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	**0.04**	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	<0.02	**0.16**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	<0.02	**0.26**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.46**	<0.01	**25.7**	**0.02**	**0.02**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.13**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.36**	**0.04**	**23.4**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	**0.10**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	<0.02	**0.54**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.30**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	<0.01	**1.14**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.98**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW269_250917	0089_MW233_250916	0089_MW236_250917	0089_MW238_250917	0089_MW239_250917
				Sampling date / time	17-Sep-2025 10:41	16-Sep-2025 16:12	17-Sep-2025 10:48	17-Sep-2025 10:50	17-Sep-2025 10:53
Compound	CAS Number	LOR	Unit		EP2515408-023	EP2515408-024	EP2515408-025	EP2515408-026	EP2515408-027
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.01**	**0.04**	**52.8**	**0.02**	**0.02**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.82**	**0.04**	**49.1**	**0.02**	**0.02**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.96**	**0.04**	**51.3**	**0.02**	**0.02**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW269_250917	0089_MW233_250916	0089_MW236_250917	0089_MW238_250917	0089_MW239_250917
				Sampling date / time	17-Sep-2025 10:41	16-Sep-2025 16:12	17-Sep-2025 10:48	17-Sep-2025 10:50	17-Sep-2025 10:53
Compound	CAS Number	LOR	Unit		EP2515408-023	EP2515408-024	EP2515408-025	EP2515408-026	EP2515408-027
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**108**	**100**	**97.2**	**99.2**	**109**
13C8-PFOA	----	0.02	%		**103**	**104**	**98.4**	**105**	**99.7**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW240_250917	0089_MW242_250917	0089_MW243_250917	0089_MW245_250917	0089_MW496_250916
				Sampling date / time	17-Sep-2025 10:40	17-Sep-2025 10:49	17-Sep-2025 10:47	17-Sep-2025 08:40	16-Sep-2025 15:10
Compound	CAS Number	LOR	Unit		EP2515408-028	EP2515408-029	EP2515408-030	EP2515408-031	EP2515408-032
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.05**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.79**	<0.01	**0.09**	<0.01	**0.59**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.08**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.64**	**0.02**	**5.42**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.04**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.06**	<0.02	<0.02	<0.02	**0.10**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	<0.01	<0.01	<0.01	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW240_250917	0089_MW242_250917	0089_MW243_250917	0089_MW245_250917	0089_MW496_250916
				Sampling date / time	17-Sep-2025 10:40	17-Sep-2025 10:49	17-Sep-2025 10:47	17-Sep-2025 08:40	16-Sep-2025 15:10
Compound	CAS Number	LOR	Unit		EP2515408-028	EP2515408-029	EP2515408-030	EP2515408-031	EP2515408-032
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.93**	<0.01	**0.73**	**0.02**	**6.33**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.79**	<0.01	**0.73**	**0.02**	**6.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.93**	<0.01	**0.73**	**0.02**	**6.20**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW240_250917	0089_MW242_250917	0089_MW243_250917	0089_MW245_250917	0089_MW496_250916
				Sampling date / time	17-Sep-2025 10:40	17-Sep-2025 10:49	17-Sep-2025 10:47	17-Sep-2025 08:40	16-Sep-2025 15:10
Compound	CAS Number	LOR	Unit		EP2515408-028	EP2515408-029	EP2515408-030	EP2515408-031	EP2515408-032
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**98.2**	**103**	**107**	**103**	**105**
13C8-PFOA	----	0.02	%		**109**	**104**	**102**	**101**	**106**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW516_250916	0089_MW255_250915	0089_MW256_250915	0089_MW257_250915	0089_MW258_250915
				Sampling date / time	16-Sep-2025 15:13	15-Sep-2025 21:49	15-Sep-2025 21:52	15-Sep-2025 21:50	15-Sep-2025 22:03
Compound	CAS Number	LOR	Unit		EP2515408-033	EP2515408-034	EP2515408-035	EP2515408-036	EP2515408-037
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	**0.59**	<0.02	**0.23**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.05**	**1.87**	<0.02	**0.53**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.12**	**1.74**	<0.02	**0.48**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.09**	**4.56**	**10.1**	**0.07**	**1.41**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.18**	<0.02	**0.18**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.98**	**0.30**	**3.85**	**0.30**	**5.20**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	**0.11**	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.4**	<0.1	**0.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	**0.06**	**0.78**	**0.11**	**0.66**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	**0.32**	**4.25**	**0.06**	**0.94**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	**0.06**	**0.30**	<0.02	**0.17**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.05**	**0.03**	**0.23**	**0.01**	**0.12**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW516_250916	0089_MW255_250915	0089_MW256_250915	0089_MW257_250915	0089_MW258_250915
				Sampling date / time	16-Sep-2025 15:13	15-Sep-2025 21:49	15-Sep-2025 21:52	15-Sep-2025 21:50	15-Sep-2025 22:03
Compound	CAS Number	LOR	Unit		EP2515408-033	EP2515408-034	EP2515408-035	EP2515408-036	EP2515408-037
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	**0.02**	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**0.06**	<0.05	**0.07**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.23**	**5.50**	**24.5**	**0.55**	**10.2**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.07**	**4.86**	**14.0**	**0.37**	**6.61**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.23**	**5.38**	**21.8**	**0.55**	**9.30**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW516_250916	0089_MW255_250915	0089_MW256_250915	0089_MW257_250915	0089_MW258_250915
				Sampling date / time	16-Sep-2025 15:13	15-Sep-2025 21:49	15-Sep-2025 21:52	15-Sep-2025 21:50	15-Sep-2025 22:03
Compound	CAS Number	LOR	Unit		EP2515408-033	EP2515408-034	EP2515408-035	EP2515408-036	EP2515408-037
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**101**	**114**	**98.9**	**112**	**104**
13C8-PFOA	----	0.02	%		**104**	**100**	**102**	**103**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW259_250915	0089_MW553_250917	0089_MW010_250917	0089_QC113_250917	0089_QC307_250917
				Sampling date / time	15-Sep-2025 22:02	17-Sep-2025 10:54	17-Sep-2025 08:48	17-Sep-2025 08:52	17-Sep-2025 08:53
Compound	CAS Number	LOR	Unit		EP2515408-038	EP2515408-039	EP2515408-040	EP2515408-156	EP2515408-157
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.16**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.27**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	**0.03**	**0.20**	**23.1**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.27**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.05**	<0.01	<0.01	**21.2**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	<0.02	**0.10**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.58**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.31**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**1.24**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.96**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW259_250915	0089_MW553_250917	0089_MW010_250917	0089_QC113_250917	0089_QC307_250917
				Sampling date / time	15-Sep-2025 22:02	17-Sep-2025 10:54	17-Sep-2025 08:48	17-Sep-2025 08:52	17-Sep-2025 08:53
Compound	CAS Number	LOR	Unit		EP2515408-038	EP2515408-039	EP2515408-040	EP2515408-156	EP2515408-157
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.09**	**0.03**	**0.20**	**48.2**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.07**	**0.03**	**0.20**	**44.3**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.09**	**0.03**	**0.20**	**46.7**	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW259_250915	0089_MW553_250917	0089_MW010_250917	0089_QC113_250917	0089_QC307_250917
				Sampling date / time	15-Sep-2025 22:02	17-Sep-2025 10:54	17-Sep-2025 08:48	17-Sep-2025 08:52	17-Sep-2025 08:53
Compound	CAS Number	LOR	Unit		EP2515408-038	EP2515408-039	EP2515408-040	EP2515408-156	EP2515408-157
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**110**	**106**	**117**	**103**	**110**
13C8-PFOA	----	0.02	%		**102**	**106**	**104**	**102**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC407_250917	----	----	----	----
				Sampling date / time	17-Sep-2025 08:55	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-158	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC407_250917	----	----	----	----
				Sampling date / time	17-Sep-2025 08:55	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-158	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_QC407_250917	----	----	----	----
				Sampling date / time	17-Sep-2025 08:55	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-158	--------	--------	--------	--------
					Result	----	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**102**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**103**	**----**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: RAW WATER (Matrix: WATER)				Sample ID	0089_MW220_250915	----	----	----	----
				Sampling date / time	15-Sep-2025 22:29	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-016	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.14**	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.36**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.13**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.12**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.08**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**10.9**	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		**0.04**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.3**	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.57**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.77**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.11**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.09**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.03**	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: RAW WATER (Matrix: WATER)				Sample ID	0089_MW220_250915	----	----	----	----
				Sampling date / time	15-Sep-2025 22:29	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-016	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**14.6**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**12.0**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**14.2**	----	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: RAW WATER (Matrix: WATER)				Sample ID	0089_MW220_250915	----	----	----	----
				Sampling date / time	15-Sep-2025 22:29	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-016	--------	--------	--------	--------
					Result	----	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**100**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**99.8**	**----**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_250909	0089_SD340_250909	0089_SD341_250909	0089_SD362_250909	0089_SD363_250909
				Sampling date / time	09-Sep-2025 15:17	09-Sep-2025 15:20	09-Sep-2025 15:18	09-Sep-2025 15:21	09-Sep-2025 15:19
Compound	CAS Number	LOR	Unit		EP2515408-041	EP2515408-042	EP2515408-043	EP2515408-044	EP2515408-045
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**22.6**	**25.4**	**20.4**	**22.8**	**29.6**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD335_250909	0089_SD340_250909	0089_SD341_250909	0089_SD362_250909	0089_SD363_250909
				Sampling date / time	09-Sep-2025 15:17	09-Sep-2025 15:20	09-Sep-2025 15:18	09-Sep-2025 15:21	09-Sep-2025 15:19
Compound	CAS Number	LOR	Unit		EP2515408-041	EP2515408-042	EP2515408-043	EP2515408-044	EP2515408-045
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**97.5**	**104**	**108**	**94.5**	**94.0**
13C8-PFOA	----	0.0002	%		**109**	**110**	**118**	**102**	**97.5**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_250909	0089_SD304_250912	0089_SD345_250912	0089_SD367_250912	0089_SD368_250912
				Sampling date / time	09-Sep-2025 15:23	12-Sep-2025 15:26	12-Sep-2025 15:31	12-Sep-2025 15:21	12-Sep-2025 15:27
Compound	CAS Number	LOR	Unit		EP2515408-046	EP2515408-047	EP2515408-048	EP2515408-049	EP2515408-050
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**17.7**	**34.1**	**43.8**	**40.6**	**34.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD364_250909	0089_SD304_250912	0089_SD345_250912	0089_SD367_250912	0089_SD368_250912
				Sampling date / time	09-Sep-2025 15:23	12-Sep-2025 15:26	12-Sep-2025 15:31	12-Sep-2025 15:21	12-Sep-2025 15:27
Compound	CAS Number	LOR	Unit		EP2515408-046	EP2515408-047	EP2515408-048	EP2515408-049	EP2515408-050
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**86.0**	**103**	**100**	**105**	**91.5**
13C8-PFOA	----	0.0002	%		**97.0**	**104**	**102**	**102**	**102**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD369_250912	0089_SD350_250911	0089_SD351_250911	0089_SD352_250911	0089_SD380_250911
				Sampling date / time	12-Sep-2025 15:36	11-Sep-2025 20:11	11-Sep-2025 20:12	11-Sep-2025 20:04	11-Sep-2025 20:18
Compound	CAS Number	LOR	Unit		EP2515408-051	EP2515408-052	EP2515408-053	EP2515408-054	EP2515408-055
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**42.0**	**13.4**	**8.9**	**9.7**	**5.5**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD369_250912	0089_SD350_250911	0089_SD351_250911	0089_SD352_250911	0089_SD380_250911
				Sampling date / time	12-Sep-2025 15:36	11-Sep-2025 20:11	11-Sep-2025 20:12	11-Sep-2025 20:04	11-Sep-2025 20:18
Compound	CAS Number	LOR	Unit		EP2515408-051	EP2515408-052	EP2515408-053	EP2515408-054	EP2515408-055
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**91.5**	**89.5**	**104**	**90.5**	**118**
13C8-PFOA	----	0.0002	%		**95.5**	**99.5**	**93.5**	**96.0**	**102**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD381_250911	0089_SD401_250911	0089_SD346_250912	0089_SD306_250910	0089_SD307_250910
				Sampling date / time	11-Sep-2025 20:06	11-Sep-2025 20:19	12-Sep-2025 15:30	10-Sep-2025 20:15	10-Sep-2025 20:25
Compound	CAS Number	LOR	Unit		EP2515408-056	EP2515408-057	EP2515408-058	EP2515408-059	EP2515408-060
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**17.3**	**19.5**	**3.6**	**39.2**	**12.9**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD381_250911	0089_SD401_250911	0089_SD346_250912	0089_SD306_250910	0089_SD307_250910
				Sampling date / time	11-Sep-2025 20:06	11-Sep-2025 20:19	12-Sep-2025 15:30	10-Sep-2025 20:15	10-Sep-2025 20:25
Compound	CAS Number	LOR	Unit		EP2515408-056	EP2515408-057	EP2515408-058	EP2515408-059	EP2515408-060
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**89.0**	**90.5**	**91.0**	**94.0**	**95.5**
13C8-PFOA	----	0.0002	%		**89.0**	**102**	**99.5**	**98.0**	**102**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD308_250910	0089_SD314_250910	0089_SD315_250910	0089_SD316_250910	0089_SD405_250916
				Sampling date / time	10-Sep-2025 20:07	10-Sep-2025 20:24	10-Sep-2025 20:09	10-Sep-2025 20:13	16-Sep-2025 11:25
Compound	CAS Number	LOR	Unit		EP2515408-061	EP2515408-062	EP2515408-063	EP2515408-064	EP2515408-065
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**22.4**	**15.0**	**7.7**	**14.0**	**26.5**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD308_250910	0089_SD314_250910	0089_SD315_250910	0089_SD316_250910	0089_SD405_250916
				Sampling date / time	10-Sep-2025 20:07	10-Sep-2025 20:24	10-Sep-2025 20:09	10-Sep-2025 20:13	16-Sep-2025 11:25
Compound	CAS Number	LOR	Unit		EP2515408-061	EP2515408-062	EP2515408-063	EP2515408-064	EP2515408-065
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**115**	**119**	**122**	**122**	**118**
13C8-PFOA	----	0.0002	%		**103**	**106**	**106**	**101**	**106**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD407_250916	0089_SD409_250916	0089_SD411_250910	0089_SD413_250910	0089_SD415_250910
				Sampling date / time	16-Sep-2025 11:23	16-Sep-2025 12:26	10-Sep-2025 20:14	10-Sep-2025 20:17	10-Sep-2025 20:22
Compound	CAS Number	LOR	Unit		EP2515408-066	EP2515408-067	EP2515408-068	EP2515408-069	EP2515408-070
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**31.1**	**30.7**	**13.0**	**13.4**	**19.0**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD407_250916	0089_SD409_250916	0089_SD411_250910	0089_SD413_250910	0089_SD415_250910
				Sampling date / time	16-Sep-2025 11:23	16-Sep-2025 12:26	10-Sep-2025 20:14	10-Sep-2025 20:17	10-Sep-2025 20:22
Compound	CAS Number	LOR	Unit		EP2515408-066	EP2515408-067	EP2515408-068	EP2515408-069	EP2515408-070
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**128**	**124**	**124**	**122**	**134**
13C8-PFOA	----	0.0002	%		**106**	**104**	**106**	**106**	**107**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD374_250916	0089_SD375_250916	0089_QC103_250910	0089_QC101_250909	0089_QC105_250912
				Sampling date / time	16-Sep-2025 14:33	16-Sep-2025 14:33	10-Sep-2025 20:21	09-Sep-2025 08:23	12-Sep-2025 11:17
Compound	CAS Number	LOR	Unit		EP2515408-071	EP2515408-072	EP2515408-124	EP2515408-133	EP2515408-141
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**7.8**	**7.4**	**21.6**	**30.4**	**41.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD374_250916	0089_SD375_250916	0089_QC103_250910	0089_QC101_250909	0089_QC105_250912
				Sampling date / time	16-Sep-2025 14:33	16-Sep-2025 14:33	10-Sep-2025 20:21	09-Sep-2025 08:23	12-Sep-2025 11:17
Compound	CAS Number	LOR	Unit		EP2515408-071	EP2515408-072	EP2515408-124	EP2515408-133	EP2515408-141
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**116**	**114**	**124**	**126**	**122**
13C8-PFOA	----	0.0002	%		**104**	**106**	**106**	**104**	**102**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_QC111_250916	0089_SD378_250916	----	----	----
				Sampling date / time	16-Sep-2025 11:27	16-Sep-2025 14:35	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-146	EP2515408-148	--------	--------	--------
					Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**27.0**	**9.6**	**----**	**----**	**----**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	**----**	**----**	**----**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	**----**	**----**	**----**
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	**----**	**----**	**----**
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_QC111_250916	0089_SD378_250916	----	----	----
				Sampling date / time	16-Sep-2025 11:27	16-Sep-2025 14:35	----	----	----
Compound	CAS Number	LOR	Unit		EP2515408-146	EP2515408-148	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**127**	**115**	----	----	----
13C8-PFOA	----	0.0002	%		**106**	**104**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250909	0089_SW132_250909	0089_SW134_250909	0089_SW305_250912	0089_SW370_250912
				Sampling date / time	09-Sep-2025 14:48	09-Sep-2025 16:11	09-Sep-2025 16:10	12-Sep-2025 16:05	12-Sep-2025 15:53
Compound	CAS Number	LOR	Unit		EP2515408-073	EP2515408-074	EP2515408-075	EP2515408-076	EP2515408-077
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.01**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250909	0089_SW132_250909	0089_SW134_250909	0089_SW305_250912	0089_SW370_250912
				Sampling date / time	09-Sep-2025 14:48	09-Sep-2025 16:11	09-Sep-2025 16:10	12-Sep-2025 16:05	12-Sep-2025 15:53
Compound	CAS Number	LOR	Unit		EP2515408-073	EP2515408-074	EP2515408-075	EP2515408-076	EP2515408-077
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	**0.01**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.01**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	**0.01**	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW130_250909	0089_SW132_250909	0089_SW134_250909	0089_SW305_250912	0089_SW370_250912
				Sampling date / time	09-Sep-2025 14:48	09-Sep-2025 16:11	09-Sep-2025 16:10	12-Sep-2025 16:05	12-Sep-2025 15:53
Compound	CAS Number	LOR	Unit		EP2515408-073	EP2515408-074	EP2515408-075	EP2515408-076	EP2515408-077
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**100**	**99.9**	**101**	**100**	**102**
13C8-PFOA	----	0.02	%		**101**	**103**	**106**	**100**	**101**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_250912	0089_SW372_250912	0089_SW373_250912	0089_SW353_250911	0089_SW382_250911
				Sampling date / time	12-Sep-2025 15:39	12-Sep-2025 15:37	12-Sep-2025 16:02	11-Sep-2025 20:27	11-Sep-2025 15:42
Compound	CAS Number	LOR	Unit		EP2515408-078	EP2515408-079	EP2515408-080	EP2515408-081	EP2515408-082
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**0.02**	**0.02**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_250912	0089_SW372_250912	0089_SW373_250912	0089_SW353_250911	0089_SW382_250911
				Sampling date / time	12-Sep-2025 15:39	12-Sep-2025 15:37	12-Sep-2025 16:02	11-Sep-2025 20:27	11-Sep-2025 15:42
Compound	CAS Number	LOR	Unit		EP2515408-078	EP2515408-079	EP2515408-080	EP2515408-081	EP2515408-082
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	**0.02**	**0.02**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.02**	**0.02**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	**0.02**	**0.02**	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW371_250912	0089_SW372_250912	0089_SW373_250912	0089_SW353_250911	0089_SW382_250911
				Sampling date / time	12-Sep-2025 15:39	12-Sep-2025 15:37	12-Sep-2025 16:02	11-Sep-2025 20:27	11-Sep-2025 15:42
Compound	CAS Number	LOR	Unit		EP2515408-078	EP2515408-079	EP2515408-080	EP2515408-081	EP2515408-082
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**108**	**110**	**101**	**133**	**114**
13C8-PFOA	----	0.02	%		**106**	**102**	**101**	**111**	**104**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW383_250911	0089_SW384_250911	0089_SW309_250910	0089_SW310_250910	0089_SW311_250910
				Sampling date / time	11-Sep-2025 20:29	11-Sep-2025 20:28	10-Sep-2025 20:56	10-Sep-2025 20:35	10-Sep-2025 20:57
Compound	CAS Number	LOR	Unit		EP2515408-083	EP2515408-084	EP2515408-085	EP2515408-086	EP2515408-087
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW383_250911	0089_SW384_250911	0089_SW309_250910	0089_SW310_250910	0089_SW311_250910
				Sampling date / time	11-Sep-2025 20:29	11-Sep-2025 20:28	10-Sep-2025 20:56	10-Sep-2025 20:35	10-Sep-2025 20:57
Compound	CAS Number	LOR	Unit		EP2515408-083	EP2515408-084	EP2515408-085	EP2515408-086	EP2515408-087
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW383_250911	0089_SW384_250911	0089_SW309_250910	0089_SW310_250910	0089_SW311_250910
				Sampling date / time	11-Sep-2025 20:29	11-Sep-2025 20:28	10-Sep-2025 20:56	10-Sep-2025 20:35	10-Sep-2025 20:57
Compound	CAS Number	LOR	Unit		EP2515408-083	EP2515408-084	EP2515408-085	EP2515408-086	EP2515408-087
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**122**	**117**	**123**	**116**	**121**
13C8-PFOA	----	0.02	%		**103**	**108**	**101**	**113**	**103**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW406_250016	0089_SW408_250916	0089_SW410_250916	0089_SW412_250910	0089_SW414_250910
				Sampling date / time	16-Sep-2025 11:19	16-Sep-2025 11:17	16-Sep-2025 12:29	10-Sep-2025 21:00	10-Sep-2025 15:12
Compound	CAS Number	LOR	Unit		EP2515408-088	EP2515408-089	EP2515408-090	EP2515408-091	EP2515408-092
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW406_250016	0089_SW408_250916	0089_SW410_250916	0089_SW412_250910	0089_SW414_250910
				Sampling date / time	16-Sep-2025 11:19	16-Sep-2025 11:17	16-Sep-2025 12:29	10-Sep-2025 21:00	10-Sep-2025 15:12
Compound	CAS Number	LOR	Unit		EP2515408-088	EP2515408-089	EP2515408-090	EP2515408-091	EP2515408-092
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW406_250016	0089_SW408_250916	0089_SW410_250916	0089_SW412_250910	0089_SW414_250910
				Sampling date / time	16-Sep-2025 11:19	16-Sep-2025 11:17	16-Sep-2025 12:29	10-Sep-2025 21:00	10-Sep-2025 15:12
Compound	CAS Number	LOR	Unit		EP2515408-088	EP2515408-089	EP2515408-090	EP2515408-091	EP2515408-092
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**118**	**128**	**124**	**99.6**	**120**
13C8-PFOA	----	0.02	%		**108**	**108**	**102**	**102**	**106**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW416_250910	0089_SW317_250916	0089_SW318_250916	0089_SW319_250916	0089_PW364_240909
				Sampling date / time	10-Sep-2025 20:42	16-Sep-2025 14:37	16-Sep-2025 14:38	16-Sep-2025 14:36	09-Sep-2025 15:46
Compound	CAS Number	LOR	Unit		EP2515408-093	EP2515408-094	EP2515408-095	EP2515408-096	EP2515408-123
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.01	µg/L		----	----	----	----	<0.01
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.002	µg/L		----	----	----	----	<0.002
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.002	µg/L		----	----	----	----	<0.002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.002	µg/L		----	----	----	----	<0.002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.002	µg/L		----	----	----	----	<0.002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.002	µg/L		----	----	----	----	<0.002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.002	µg/L		----	----	----	----	<0.002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.002	µg/L		----	----	----	----	<0.002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.01	µg/L		----	----	----	----	<0.01
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW416_250910	0089_SW317_250916	0089_SW318_250916	0089_SW319_250916	0089_PW364_240909
				Sampling date / time	10-Sep-2025 20:42	16-Sep-2025 14:37	16-Sep-2025 14:38	16-Sep-2025 14:36	09-Sep-2025 15:46
Compound	CAS Number	LOR	Unit		EP2515408-093	EP2515408-094	EP2515408-095	EP2515408-096	EP2515408-123
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.002	µg/L		----	----	----	----	<0.002
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.002	µg/L		----	----	----	----	<0.002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.002	µg/L		----	----	----	----	<0.002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.002	µg/L		----	----	----	----	<0.002
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.002	µg/L		----	----	----	----	<0.002
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.002	µg/L		----	----	----	----	<0.002
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.002	µg/L		----	----	----	----	<0.002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.002	µg/L		----	----	----	----	<0.002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	µg/L		----	----	----	----	<0.002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.005	µg/L		----	----	----	----	<0.005
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.005	µg/L		----	----	----	----	<0.005
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW416_250910	0089_SW317_250916	0089_SW318_250916	0089_SW319_250916	0089_PW364_240909
				Sampling date / time	10-Sep-2025 20:42	16-Sep-2025 14:37	16-Sep-2025 14:38	16-Sep-2025 14:36	09-Sep-2025 15:46
Compound	CAS Number	LOR	Unit		EP2515408-093	EP2515408-094	EP2515408-095	EP2515408-096	EP2515408-123
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.002	µg/L		----	----	----	----	<0.002
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.005	µg/L		----	----	----	----	<0.005
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.005	µg/L		----	----	----	----	<0.005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.005	µg/L		----	----	----	----	<0.005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.005	µg/L		----	----	----	----	<0.005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.002	µg/L		----	----	----	----	<0.002
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.002	µg/L		----	----	----	----	<0.002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.005	µg/L		----	----	----	----	<0.005

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW416_250910	0089_SW317_250916	0089_SW318_250916	0089_SW319_250916	0089_PW364_240909
				Sampling date / time	10-Sep-2025 20:42	16-Sep-2025 14:37	16-Sep-2025 14:38	16-Sep-2025 14:36	09-Sep-2025 15:46
Compound	CAS Number	LOR	Unit		EP2515408-093	EP2515408-094	EP2515408-095	EP2515408-096	EP2515408-123
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.005	µg/L		----	----	----	----	<0.005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.005	µg/L		----	----	----	----	<0.005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.005	µg/L		----	----	----	----	<0.005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.002	µg/L		----	----	----	----	<0.002
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.002	µg/L		----	----	----	----	<0.002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.002	µg/L		----	----	----	----	<0.002
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.002	%		----	----	----	----	**103**
13C4-PFOS	----	0.02	%		**127**	**119**	**112**	**121**	----
13C8-PFOA	----	0.002	%		----	----	----	----	**99.6**
13C8-PFOA	----	0.02	%		**106**	**105**	**101**	**108**	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW401_250911	0089_PW363_250909	0089_PW335_250909	0089_PW340_250909	0089_PW341_250909
				Sampling date / time	11-Sep-2025 07:44	09-Sep-2025 07:46	09-Sep-2025 07:51	09-Sep-2025 08:06	09-Sep-2025 08:09
Compound	CAS Number	LOR	Unit		EP2515408-127	EP2515408-128	EP2515408-129	EP2515408-130	EP2515408-131
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW401_250911	0089_PW363_250909	0089_PW335_250909	0089_PW340_250909	0089_PW341_250909
				Sampling date / time	11-Sep-2025 07:44	09-Sep-2025 07:46	09-Sep-2025 07:51	09-Sep-2025 08:06	09-Sep-2025 08:09
Compound	CAS Number	LOR	Unit		EP2515408-127	EP2515408-128	EP2515408-129	EP2515408-130	EP2515408-131
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW401_250911	0089_PW363_250909	0089_PW335_250909	0089_PW340_250909	0089_PW341_250909
				Sampling date / time	11-Sep-2025 07:44	09-Sep-2025 07:46	09-Sep-2025 07:51	09-Sep-2025 08:06	09-Sep-2025 08:09
Compound	CAS Number	LOR	Unit		EP2515408-127	EP2515408-128	EP2515408-129	EP2515408-130	EP2515408-131
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**101**	**103**	**104**	**101**	**101**
13C8-PFOA	----	0.02	%		**101**	**100**	**99.4**	**100**	**98.3**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW362_250909	0089_QC301_250909	0089_QC302_250910	0089_QC401_250909	0089_QC402_250910
				Sampling date / time	09-Sep-2025 08:17	09-Sep-2025 08:28	10-Sep-2025 08:31	09-Sep-2025 08:33	10-Sep-2025 08:35
Compound	CAS Number	LOR	Unit		EP2515408-132	EP2515408-135	EP2515408-136	EP2515408-137	EP2515408-138
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW362_250909	0089_QC301_250909	0089_QC302_250910	0089_QC401_250909	0089_QC402_250910
				Sampling date / time	09-Sep-2025 08:17	09-Sep-2025 08:28	10-Sep-2025 08:31	09-Sep-2025 08:33	10-Sep-2025 08:35
Compound	CAS Number	LOR	Unit		EP2515408-132	EP2515408-135	EP2515408-136	EP2515408-137	EP2515408-138
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW362_250909	0089_QC301_250909	0089_QC302_250910	0089_QC401_250909	0089_QC402_250910
				Sampling date / time	09-Sep-2025 08:17	09-Sep-2025 08:28	10-Sep-2025 08:31	09-Sep-2025 08:33	10-Sep-2025 08:35
Compound	CAS Number	LOR	Unit		EP2515408-132	EP2515408-135	EP2515408-136	EP2515408-137	EP2515408-138
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**107**	**102**	**106**	**112**	**104**
13C8-PFOA	----	0.02	%		**100**	**98.2**	**96.8**	**102**	**103**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC403_250911	0089_QC106_250912	0089_QC108_250912	0089_QC107_250912	0089_QC304_250912
				Sampling date / time	11-Sep-2025 08:37	12-Sep-2025 11:15	12-Sep-2025 13:50	12-Sep-2025 13:51	12-Sep-2025 13:53
Compound	CAS Number	LOR	Unit		EP2515408-139	EP2515408-140	EP2515408-142	EP2515408-143	EP2515408-144
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.01**	**0.03**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC403_250911	0089_QC106_250912	0089_QC108_250912	0089_QC107_250912	0089_QC304_250912
				Sampling date / time	11-Sep-2025 08:37	12-Sep-2025 11:15	12-Sep-2025 13:50	12-Sep-2025 13:51	12-Sep-2025 13:53
Compound	CAS Number	LOR	Unit		EP2515408-139	EP2515408-140	EP2515408-142	EP2515408-143	EP2515408-144
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.01**	**0.03**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.01**	**0.03**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.01**	**0.03**	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC403_250911	0089_QC106_250912	0089_QC108_250912	0089_QC107_250912	0089_QC304_250912
				Sampling date / time	11-Sep-2025 08:37	12-Sep-2025 11:15	12-Sep-2025 13:50	12-Sep-2025 13:51	12-Sep-2025 13:53
Compound	CAS Number	LOR	Unit		EP2515408-139	EP2515408-140	EP2515408-142	EP2515408-143	EP2515408-144
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**117**	**105**	**99.5**	**108**	**110**
13C8-PFOA	----	0.02	%		**104**	**101**	**99.5**	**106**	**103**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC404_2500912	0089_QC112_250916	0089_QC406_250916	0089_QC306_250916	----
				Sampling date / time	12-Sep-2025 13:55	16-Sep-2025 11:29	16-Sep-2025 14:43	16-Sep-2025 14:44	----
Compound	CAS Number	LOR	Unit		EP2515408-145	EP2515408-147	EP2515408-149	EP2515408-150	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC404_2500912	0089_QC112_250916	0089_QC406_250916	0089_QC306_250916	----
				Sampling date / time	12-Sep-2025 13:55	16-Sep-2025 11:29	16-Sep-2025 14:43	16-Sep-2025 14:44	----
Compound	CAS Number	LOR	Unit		EP2515408-145	EP2515408-147	EP2515408-149	EP2515408-150	--------
					Result	Result	Result	Result	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_QC404_2500912	0089_QC112_250916	0089_QC406_250916	0089_QC306_250916	----
				Sampling date / time	12-Sep-2025 13:55	16-Sep-2025 11:29	16-Sep-2025 14:43	16-Sep-2025 14:44	----
Compound	CAS Number	LOR	Unit		EP2515408-145	EP2515408-147	EP2515408-149	EP2515408-150	--------
					Result	Result	Result	Result	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**111**	**104**	**111**	**111**	**----**
13C8-PFOA	----	0.02	%		**102**	**104**	**104**	**101**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_250912	0089_PW345_250912	0089_PW367_250912	0089_PW368_250912	0089_PW369_250912
				Sampling date / time	12-Sep-2025 15:58	12-Sep-2025 15:03	12-Sep-2025 15:15	12-Sep-2025 15:16	12-Sep-2025 15:07
Compound	CAS Number	LOR	Unit		EP2515408-097	EP2515408-098	EP2515408-099	EP2515408-100	EP2515408-101
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	**0.02**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.01**	<0.01	**0.01**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_250912	0089_PW345_250912	0089_PW367_250912	0089_PW368_250912	0089_PW369_250912
				Sampling date / time	12-Sep-2025 15:58	12-Sep-2025 15:03	12-Sep-2025 15:15	12-Sep-2025 15:16	12-Sep-2025 15:07
Compound	CAS Number	LOR	Unit		EP2515408-097	EP2515408-098	EP2515408-099	EP2515408-100	EP2515408-101
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	**0.01**	**0.02**	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	**0.01**	**0.02**	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	**0.01**	**0.02**	**0.01**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW304_250912	0089_PW345_250912	0089_PW367_250912	0089_PW368_250912	0089_PW369_250912
				Sampling date / time	12-Sep-2025 15:58	12-Sep-2025 15:03	12-Sep-2025 15:15	12-Sep-2025 15:16	12-Sep-2025 15:07
Compound	CAS Number	LOR	Unit		EP2515408-097	EP2515408-098	EP2515408-099	EP2515408-100	EP2515408-101
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**121**	**115**	**129**	**113**	**118**
13C8-PFOA	----	0.02	%		**102**	**105**	**111**	**103**	**107**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW350_250911	0089_PW351_250911	0089_PW352_250911	0089_PW380_250911	0089_PW381_250911
				Sampling date / time	11-Sep-2025 20:40	11-Sep-2025 20:44	11-Sep-2025 14:58	11-Sep-2025 20:54	11-Sep-2025 15:56
Compound	CAS Number	LOR	Unit		EP2515408-102	EP2515408-103	EP2515408-104	EP2515408-105	EP2515408-106
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW350_250911	0089_PW351_250911	0089_PW352_250911	0089_PW380_250911	0089_PW381_250911
				Sampling date / time	11-Sep-2025 20:40	11-Sep-2025 20:44	11-Sep-2025 14:58	11-Sep-2025 20:54	11-Sep-2025 15:56
Compound	CAS Number	LOR	Unit		EP2515408-102	EP2515408-103	EP2515408-104	EP2515408-105	EP2515408-106
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW350_250911	0089_PW351_250911	0089_PW352_250911	0089_PW380_250911	0089_PW381_250911
				Sampling date / time	11-Sep-2025 20:40	11-Sep-2025 20:44	11-Sep-2025 14:58	11-Sep-2025 20:54	11-Sep-2025 15:56
Compound	CAS Number	LOR	Unit		EP2515408-102	EP2515408-103	EP2515408-104	EP2515408-105	EP2515408-106
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**120**	**114**	**113**	**110**	**116**
13C8-PFOA	----	0.02	%		**105**	**101**	**104**	**105**	**103**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW346_250912	0089_PW306_250910	0089_PW307_250910	0089_PW308_250910	0089_PW314_250910
				Sampling date / time	12-Sep-2025 16:09	10-Sep-2025 20:38	10-Sep-2025 14:50	10-Sep-2025 15:10	10-Sep-2025 15:05
Compound	CAS Number	LOR	Unit		EP2515408-107	EP2515408-108	EP2515408-109	EP2515408-110	EP2515408-111
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.54**	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW346_250912	0089_PW306_250910	0089_PW307_250910	0089_PW308_250910	0089_PW314_250910
				Sampling date / time	12-Sep-2025 16:09	10-Sep-2025 20:38	10-Sep-2025 14:50	10-Sep-2025 15:10	10-Sep-2025 15:05
Compound	CAS Number	LOR	Unit		EP2515408-107	EP2515408-108	EP2515408-109	EP2515408-110	EP2515408-111
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.59**	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.59**	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.59**	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW346_250912	0089_PW306_250910	0089_PW307_250910	0089_PW308_250910	0089_PW314_250910
				Sampling date / time	12-Sep-2025 16:09	10-Sep-2025 20:38	10-Sep-2025 14:50	10-Sep-2025 15:10	10-Sep-2025 15:05
Compound	CAS Number	LOR	Unit		EP2515408-107	EP2515408-108	EP2515408-109	EP2515408-110	EP2515408-111
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**109**	**119**	**118**	**118**	**113**
13C8-PFOA	----	0.02	%		**103**	**106**	**103**	**105**	**104**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW315_250910	0089_PW316_250910	0089_PW405_250916	0089_PW407_250916	0089_PW409_250916
				Sampling date / time	10-Sep-2025 20:37	10-Sep-2025 15:48	16-Sep-2025 11:21	16-Sep-2025 11:20	16-Sep-2025 12:27
Compound	CAS Number	LOR	Unit		EP2515408-112	EP2515408-113	EP2515408-114	EP2515408-115	EP2515408-116
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW315_250910	0089_PW316_250910	0089_PW405_250916	0089_PW407_250916	0089_PW409_250916
				Sampling date / time	10-Sep-2025 20:37	10-Sep-2025 15:48	16-Sep-2025 11:21	16-Sep-2025 11:20	16-Sep-2025 12:27
Compound	CAS Number	LOR	Unit		EP2515408-112	EP2515408-113	EP2515408-114	EP2515408-115	EP2515408-116
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW315_250910	0089_PW316_250910	0089_PW405_250916	0089_PW407_250916	0089_PW409_250916
				Sampling date / time	10-Sep-2025 20:37	10-Sep-2025 15:48	16-Sep-2025 11:21	16-Sep-2025 11:20	16-Sep-2025 12:27
Compound	CAS Number	LOR	Unit		EP2515408-112	EP2515408-113	EP2515408-114	EP2515408-115	EP2515408-116
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**119**	**107**	**122**	**102**	**100**
13C8-PFOA	----	0.02	%		**106**	**104**	**104**	**98.7**	**98.7**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_250910	0089_PW413_250910	0089_PW415_250910	0089_PW374_250916	0089_PW375_250916
				Sampling date / time	10-Sep-2025 20:46	10-Sep-2025 15:01	10-Sep-2025 15:13	16-Sep-2025 14:41	16-Sep-2025 14:40
Compound	CAS Number	LOR	Unit		EP2515408-117	EP2515408-118	EP2515408-119	EP2515408-120	EP2515408-121
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.01**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_250910	0089_PW413_250910	0089_PW415_250910	0089_PW374_250916	0089_PW375_250916
				Sampling date / time	10-Sep-2025 20:46	10-Sep-2025 15:01	10-Sep-2025 15:13	16-Sep-2025 14:41	16-Sep-2025 14:40
Compound	CAS Number	LOR	Unit		EP2515408-117	EP2515408-118	EP2515408-119	EP2515408-120	EP2515408-121
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.01**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW411_250910	0089_PW413_250910	0089_PW415_250910	0089_PW374_250916	0089_PW375_250916
				Sampling date / time	10-Sep-2025 20:46	10-Sep-2025 15:01	10-Sep-2025 15:13	16-Sep-2025 14:41	16-Sep-2025 14:40
Compound	CAS Number	LOR	Unit		EP2515408-117	EP2515408-118	EP2515408-119	EP2515408-120	EP2515408-121
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**102**	**104**	**101**	**104**	**106**
13C8-PFOA	----	0.02	%		**99.1**	**98.0**	**99.2**	**99.4**	**98.7**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_250916	0089_QC308_250918	0089_QC408_250918	----	----
				Sampling date / time	16-Sep-2025 14:39	18-Sep-2025 10:10	18-Sep-2025 10:28	----	----
Compound	CAS Number	LOR	Unit		EP2515408-122	EP2515408-159	EP2515408-160	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_250916	0089_QC308_250918	0089_QC408_250918	----	----
				Sampling date / time	16-Sep-2025 14:39	18-Sep-2025 10:10	18-Sep-2025 10:28	----	----
Compound	CAS Number	LOR	Unit		EP2515408-122	EP2515408-159	EP2515408-160	--------	--------
					Result	Result	Result	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_PW378_250916	0089_QC308_250918	0089_QC408_250918	----	----
				Sampling date / time	16-Sep-2025 14:39	18-Sep-2025 10:10	18-Sep-2025 10:28	----	----
Compound	CAS Number	LOR	Unit		EP2515408-122	EP2515408-159	EP2515408-160	--------	--------
					Result	Result	Result	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**103**	**108**	**115**	**----**	**----**
13C8-PFOA	----	0.02	%		**98.6**	**102**	**102**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: FRESH WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: RAW WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	76	136
13C8-PFOA	----	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2515408**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 7
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 88337	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: WA_0089_PFASOMP_25		
Sampler	: [redacted]		

Dates

Date Samples Received	: 19-Sep-2025 16:30	Issue Date	: 23-Sep-2025
Client Requested Due Date	: 02-Oct-2025	Scheduled Reporting Date	: **02-Oct-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 4	Temperature	: 2.4 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 160 / 160

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.
- **If Scheduled Reporting Date shown above is earlier than Client Requested Due Date, this reflects the date that a preliminary report is scheduled to be issued. Client Requested Due Date reflects the date that the final report is to be issued.**

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2515408-041	09-Sep-2025 15:17	0089_SD335_250909	✓	✓
EP2515408-042	09-Sep-2025 15:20	0089_SD340_250909	✓	✓
EP2515408-043	09-Sep-2025 15:18	0089_SD341_250909	✓	✓
EP2515408-044	09-Sep-2025 15:21	0089_SD362_250909	✓	✓
EP2515408-045	09-Sep-2025 15:19	0089_SD363_250909	✓	✓
EP2515408-046	09-Sep-2025 15:23	0089_SD364_250909	✓	✓
EP2515408-047	12-Sep-2025 15:26	0089_SD304_250912	✓	✓
EP2515408-048	12-Sep-2025 15:31	0089_SD345_250912	✓	✓
EP2515408-049	12-Sep-2025 15:21	0089_SD367_250912	✓	✓
EP2515408-050	17-Sep-2025 15:27	0089_SD368_250912	✓	✓
EP2515408-051	12-Sep-2025 15:36	0089_SD369_250912	✓	✓
EP2515408-052	11-Sep-2025 20:11	0089_SD350_250911	✓	✓
EP2515408-053	11-Sep-2025 20:12	0089_SD351_250911	✓	✓
EP2515408-054	11-Sep-2025 20:04	0089_SD352_250911	✓	✓
EP2515408-055	11-Sep-2025 20:18	0089_SD380_250911	✓	✓
EP2515408-056	11-Sep-2025 20:06	0089_SD381_250911	✓	✓
EP2515408-057	11-Sep-2025 20:19	0089_SD401_250911	✓	✓
EP2515408-058	12-Sep-2025 15:30	0089_SD346_250912	✓	✓
EP2515408-059	10-Sep-2025 20:15	0089_SD306_250910	✓	✓
EP2515408-060	10-Sep-2025 20:25	0089_SD307_250910	✓	✓
EP2515408-061	10-Sep-2025 20:07	0089_SD308_250910	✓	✓
EP2515408-062	10-Sep-2025 20:24	0089_SD314_250910	✓	✓
EP2515408-063	10-Sep-2025 20:09	0089_SD315_250910	✓	✓
EP2515408-064	10-Sep-2025 20:13	0089_SD316_250910	✓	✓
EP2515408-065	16-Sep-2025 11:25	0089_SD405_250916	✓	✓
EP2515408-066	16-Sep-2025 11:23	0089_SD407_250916	✓	✓
EP2515408-067	16-Sep-2025 12:26	0089_SD409_250916	✓	✓
EP2515408-068	10-Sep-2025 20:14	0089_SD411_250910	✓	✓
EP2515408-069	10-Sep-2025 20:17	0089_SD413_250910	✓	✓
EP2515408-070	10-Sep-2025 20:22	0089_SD415_250910	✓	✓
EP2515408-071	16-Sep-2025 14:33	0089_SD374_250916	✓	✓
EP2515408-072	16-Sep-2025 14:33	0089_SD375_250916	✓	✓
EP2515408-124	10-Sep-2025 20:21	0089_QC103_250910	✓	✓
EP2515408-133	09-Sep-2025 08:23	0089_QC101_250909	✓	✓
EP2515408-141	12-Sep-2025 11:17	0089_QC105_250912	✓	✓

			SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2515408-146	16-Sep-2025 11:27	0089_QC111_250916	✓	✓
EP2515408-148	16-Sep-2025 14:35	0089_SD378_250916	✓	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - EP231X-LL PFAS - Full Suite (31 analytes) Low Level
EP2515408-001	09-Sep-2025 15:51	0089_MW125_250909	✓	
EP2515408-002	09-Sep-2025 14:59	0089_MW126_250909	✓	
EP2515408-003	09-Sep-2025 15:45	0089_MW127_250909	✓	
EP2515408-005	17-Sep-2025 11:11	0089_MW173_250918	✓	
EP2515408-006	18-Sep-2025 10:17	0089_MW196_250918	✓	
EP2515408-007	18-Sep-2025 10:15	0089_MW199_250918	✓	
EP2515408-008	16-Sep-2025 16:41	0089_MW203_250916	✓	
EP2515408-009	18-Sep-2025 10:13	0089_MW195D_250918	✓	
EP2515408-010	18-Sep-2025 10:22	0089_MW468_250918	✓	
EP2515408-011	17-Sep-2025 10:45	0089_MW288_250917	✓	
EP2515408-012	15-Sep-2025 22:09	0089_MW214_250915	✓	
EP2515408-013	15-Sep-2025 22:11	0089_MW215_250915	✓	
EP2515408-014	15-Sep-2025 21:59	0089_MW216_250915	✓	
EP2515408-015	15-Sep-2025 22:15	0089_MW217_250915	✓	
EP2515408-016	15-Sep-2025 22:29	0089_MW220_250915	✓	
EP2515408-017	15-Sep-2025 22:18	0089_MW224_250915	✓	
EP2515408-018	15-Sep-2025 22:08	0089_MW225_250915	✓	
EP2515408-019	16-Sep-2025 12:30	0089_MW226_250916	✓	
EP2515408-020	16-Sep-2025 11:22	0089_MW228_250016	✓	
EP2515408-021	17-Sep-2025 10:43	0089_MW282_250917		✓
EP2515408-022	17-Sep-2025 10:46	0089_MW268_250917	✓	
EP2515408-023	17-Sep-2025 10:41	0089_MW269_250917	✓	
EP2515408-024	16-Sep-2025 16:12	0089_MW233_250916	✓	
EP2515408-025	17-Sep-2025 10:48	0089_MW236_250917	✓	
EP2515408-026	17-Sep-2025 10:50	0089_MW238_250917	✓	
EP2515408-027	17-Sep-2025 10:53	0089_MW239_250917	✓	
EP2515408-028	17-Sep-2025 10:40	0089_MW240_250917	✓	

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - EP231X-LL PFAS - Full Suite (31 analytes) Low Level
EP2515408-029	17-Sep-2025 10:49	0089_MW242_250917	✓	
EP2515408-030	17-Sep-2025 10:47	0089_MW243_250917	✓	
EP2515408-031	17-Sep-2025 08:40	0089_MW245_250917	✓	
EP2515408-032	16-Sep-2025 15:10	0089_MW496_250916	✓	
EP2515408-033	16-Sep-2025 15:13	0089_MW516_250916	✓	
EP2515408-034	15-Sep-2025 21:49	0089_MW255_250915	✓	
EP2515408-035	15-Sep-2025 21:52	0089_MW256_250915	✓	
EP2515408-036	15-Sep-2025 21:50	0089_MW257_250915	✓	
EP2515408-037	15-Sep-2025 22:03	0089_MW258_250915	✓	
EP2515408-038	15-Sep-2025 22:02	0089_MW259_250915	✓	
EP2515408-039	17-Sep-2025 10:54	0089_MW553_250917	✓	
EP2515408-040	17-Sep-2025 08:48	0089_MW010_250917	✓	
EP2515408-073	09-Sep-2025 14:48	0089_SW130_250909	✓	
EP2515408-074	09-Sep-2025 16:11	0089_SW132_250909	✓	
EP2515408-075	09-Sep-2025 16:10	0089_SW134_250909	✓	
EP2515408-076	12-Sep-2025 16:05	0089_SW305_250912	✓	
EP2515408-077	12-Sep-2025 15:53	0089_SW370_250912	✓	
EP2515408-078	12-Sep-2025 15:39	0089_SW371_250912	✓	
EP2515408-079	12-Sep-2025 15:37	0089_SW372_250912	✓	
EP2515408-080	12-Sep-2025 16:02	0089_SW373_250912	✓	
EP2515408-081	11-Sep-2025 20:27	0089_SW353_250911	✓	
EP2515408-082	11-Sep-2025 15:42	0089_SW382_250911	✓	
EP2515408-083	11-Sep-2025 20:29	0089_SW383_250911	✓	
EP2515408-084	11-Sep-2025 20:28	0089_SW384_250911	✓	
EP2515408-085	10-Sep-2025 20:56	0089_SW309_250910	✓	
EP2515408-086	10-Sep-2025 20:35	0089_SW310_250910	✓	
EP2515408-087	10-Sep-2025 20:57	0089_SW311_250910	✓	
EP2515408-088	16-Sep-2025 11:19	0089_SW406_250016	✓	
EP2515408-089	16-Sep-2025 11:17	0089_SW408_250916	✓	
EP2515408-090	16-Sep-2025 12:29	0089_SW410_250916	✓	
EP2515408-091	10-Sep-2025 21:00	0089_SW412_250910	✓	
EP2515408-092	10-Sep-2025 15:12	0089_SW414_250910	✓	
EP2515408-093	10-Sep-2025 20:42	0089_SW416_250910	✓	
EP2515408-094	16-Sep-2025 14:37	0089_SW317_250916	✓	
EP2515408-095	16-Sep-2025 14:38	0089_SW318_250916	✓	
EP2515408-096	16-Sep-2025 14:36	0089_SW319_250916	✓	
EP2515408-097	12-Sep-2025 15:58	0089_PW304_250912	✓	
EP2515408-098	12-Sep-2025 15:03	0089_PW345_250912	✓	
EP2515408-099	12-Sep-2025 15:15	0089_PW367_250912	✓	
EP2515408-100	12-Sep-2025 15:16	0089_PW368_250912	✓	
EP2515408-101	12-Sep-2025 15:07	0089_PW369_250912	✓	

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - EP231X-LL PFAS - Full Suite (31 analytes) Low Level
EP2515408-102	11-Sep-2025 20:40	0089_PW350_250911	✓	
EP2515408-103	11-Sep-2025 20:44	0089_PW351_250911	✓	
EP2515408-104	11-Sep-2025 14:58	0089_PW352_250911	✓	
EP2515408-105	11-Sep-2025 20:54	0089_PW380_250911	✓	
EP2515408-106	11-Sep-2025 15:56	0089_PW381_250911	✓	
EP2515408-107	12-Sep-2025 16:09	0089_PW346_250912	✓	
EP2515408-108	10-Sep-2025 20:38	0089_PW306_250910	✓	
EP2515408-109	10-Sep-2025 14:50	0089_PW307_250910	✓	
EP2515408-110	10-Sep-2025 15:10	0089_PW308_250910	✓	
EP2515408-111	10-Sep-2025 15:05	0089_PW314_250910	✓	
EP2515408-112	10-Sep-2025 20:37	0089_PW315_250910	✓	
EP2515408-113	10-Sep-2025 15:48	0089_PW316_250910	✓	
EP2515408-114	16-Sep-2025 11:21	0089_PW405_250916	✓	
EP2515408-115	16-Sep-2025 11:20	0089_PW407_250916	✓	
EP2515408-116	16-Sep-2025 12:27	0089_PW409_250916	✓	
EP2515408-117	10-Sep-2025 20:46	0089_PW411_250910	✓	
EP2515408-118	10-Sep-2025 15:01	0089_PW413_250910	✓	
EP2515408-119	10-Sep-2025 15:13	0089_PW415_250910	✓	
EP2515408-120	16-Sep-2025 14:41	0089_PW374_250916	✓	
EP2515408-121	16-Sep-2025 14:40	0089_PW375_250916	✓	
EP2515408-122	16-Sep-2025 14:39	0089_PW378_250916	✓	
EP2515408-123	09-Sep-2025 15:46	0089_PW364_240909		✓
EP2515408-125	11-Sep-2025 20:32	0089_QC303_250911	✓	
EP2515408-126	10-Sep-2025 20:49	0089_QC104_250910	✓	
EP2515408-127	11-Sep-2025 07:44	0089_PW401_250911	✓	
EP2515408-128	09-Sep-2025 07:46	0089_PW363_250909	✓	
EP2515408-129	09-Sep-2025 07:51	0089_PW335_250909	✓	
EP2515408-130	09-Sep-2025 08:06	0089_PW340_250909	✓	
EP2515408-131	09-Sep-2025 08:09	0089_PW341_250909	✓	
EP2515408-132	09-Sep-2025 08:17	0089_PW362_250909	✓	
EP2515408-135	09-Sep-2025 08:28	0089_QC301_250909	✓	
EP2515408-136	10-Sep-2025 08:31	0089_QC302_250910	✓	
EP2515408-137	09-Sep-2025 08:33	0089_QC401_250909	✓	
EP2515408-138	10-Sep-2025 08:35	0089_QC402_250910	✓	
EP2515408-139	11-Sep-2025 08:37	0089_QC403_250911	✓	
EP2515408-140	12-Sep-2025 11:15	0089_QC106_250912	✓	
EP2515408-142	12-Sep-2025 13:50	0089_QC108_250912	✓	
EP2515408-143	12-Sep-2025 13:51	0089_QC107_250912	✓	
EP2515408-144	12-Sep-2025 13:53	0089_QC304_250912	✓	
EP2515408-145	12-Sep-2025 13:55	0089_QC404_2500912	✓	
EP2515408-147	16-Sep-2025 11:29	0089_QC112_250916	✓	

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)	WATER - EP231X-LL PFAS - Full Suite (31 analytes) Low Level
EP2515408-149	16-Sep-2025 14:43	0089_QC406_250916	✓	
EP2515408-150	16-Sep-2025 14:44	0089_QC306_250916	✓	
EP2515408-151	15-Sep-2025 21:55	0089_QC305_250915	✓	
EP2515408-152	16-Sep-2025 22:07	0089_QC109_250915	✓	
EP2515408-153	15-Sep-2025 22:14	0089_QC405_250915	✓	
EP2515408-154	15-Sep-2025 22:16	0089_QC110_250915	✓	
EP2515408-155	09-Sep-2025 14:53	0088_QC102_250909	✓	
EP2515408-156	17-Sep-2025 08:52	0089_QC113_250917	✓	
EP2515408-157	17-Sep-2025 08:53	0089_QC307_250917	✓	
EP2515408-158	17-Sep-2025 08:55	0089_QC407_250917	✓	
EP2515408-159	18-Sep-2025 10:10	0089_QC308_250918	✓	
EP2515408-160	18-Sep-2025 10:28	0089_QC408_250918	✓	
EP2515408-161	18-Sep-2025 10:34	0089_QC114_250918	✓	
EP2515408-162	18-Sep-2025 10:37	0089_MW079_250918	✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	GHD.LabReports@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	GHD.LabReports@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	GHD.LabReports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	GHD.LabReports@ghd.com
- Chain of Custody (CoC) (COC)	Email	GHD.LabReports@ghd.com
- EDI Format - ESDAT (ESDAT)	Email	GHD.LabReports@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	GHD.LabReports@ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

QUALITY CONTROL REPORT

Work Order	: **EP2515408**	Page	: 1 of 51
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 19-Sep-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 24-Sep-2025
C-O-C number	: 88337	Issue Date	: 29-Dec-2025
Sampler	: [redacted]		
Site	: WA_0089_PFASOMP_25		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 160		
No. of samples analysed	: 160		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Analyst	Perth Inorganics, Wangara, WA
[redacted]	SENIOR LAB TECH	Perth Organics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6887192)									
EP2515408-041	0089_SD335_250909	EA055: Moisture Content	----	0.1	%	22.6	22.0	2.7	0% - 20%
EP2515408-051	0089_SD369_250912	EA055: Moisture Content	----	0.1	%	42.0	44.0	4.6	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6887193)									
EP2515408-061	0089_SD308_250910	EA055: Moisture Content	----	0.1	%	22.4	22.7	0.9	0% - 20%
EP2515408-071	0089_SD374_250916	EA055: Moisture Content	----	0.1	%	7.8	6.5	18.5	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6882638)									
EP2515408-041	0089_SD335_250909	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2515408-051	0089_SD369_250912	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6882644)									
EP2515408-061	0089_SD308_250910	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2515408-071	0089_SD374_250916	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6882638)									
EP2515408-041	0089_SD335_250909	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2515408-051	0089_SD369_250912	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6882644)									
EP2515408-061	0089_SD308_250910	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2515408-071	0089_SD374_250916	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6882638)									
EP2515408-041	0089_SD335_250909	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2515408-051	0089_SD369_250912	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6882638) - continued									
EP2515408-051	0089_SD369_250912	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6882644)									
EP2515408-061	0089_SD308_250910	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2515408-071	0089_SD374_250916	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6882638)									
EP2515408-041	0089_SD335_250909	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6882638) - continued									
EP2515408-041	0089_SD335_250909	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2515408-051	0089_SD369_250912	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6882644)									
EP2515408-061	0089_SD308_250910	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2515408-071	0089_SD374_250916	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6882638)									
EP2515408-041	0089_SD335_250909	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2515408-051	0089_SD369_250912	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231P: PFAS Sums (QC Lot: 6882644)									
EP2515408-061	0089_SD308_250910	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2515408-071	0089_SD374_250916	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886366)									
EP2515408-080	0089_SW373_250912	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886378)									
EP2515408-009	0089_MW195D_250918	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515408-025	0089_MW236_250917	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01 (0.02)*	µg/L	25.7	26.1	1.5	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01 (0.02)*	µg/L	23.4	23.0	1.9	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	0.04	0.03	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.16	0.15	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.26	0.26	0.0	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.13	0.14	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886385)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886385) - continued									
EP2515408-029	0089_MW242_250917	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515408-036	0089_MW257_250915	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.30	0.29	4.6	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886410)									
EP2515408-081	0089_SW353_250911	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515408-093	0089_SW416_250910	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886417)									
EP2515408-097	0089_PW304_250912	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886417) - continued									
EP2515408-097	0089_PW304_250912	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515408-112	0089_PW315_250910	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886948)									
EP2515508-003	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.05	0.04	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.13	0.13	0.0	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515508-017	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.19	0.20	5.6	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.51	0.53	3.7	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886987)									
EP2515508-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886987) - continued									
EP2515508-004	Anonymous	EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515508-025	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.05	0.06	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.09	0.11	20.3	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6886991)									
EP2515508-027	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.06	0.05	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6889213)									
EP2515706-001	Anonymous	EP231X-LL: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.002	µg/L	0.003	0.004	0.0	No Limit
		EP231X-LL: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.002	µg/L	0.005	0.006	0.0	No Limit
		EP231X-LL: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.002	µg/L	0.047	0.047	0.0	0% - 20%
		EP231X-LL: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.002	µg/L	0.017	0.026	41.2	0% - 50%
		EP231X-LL: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886366)									
EP2515408-080	0089_SW373_250912	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886366) - continued									
EP2515408-080	0089_SW373_250912	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886378)									
EP2515408-009	0089_MW195D_250918	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515408-025	0089_MW236_250917	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	1.14	1.23	7.4	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.54	0.55	0.0	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.30	0.28	6.1	0% - 50%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.98	0.98	0.0	0% - 20%
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886385)									
EP2515408-029	0089_MW242_250917	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886385) - continued									
EP2515408-029	0089_MW242_250917	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515408-036	0089_MW257_250915	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.11	0.11	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886410)									
EP2515408-081	0089_SW353_250911	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515408-093	0089_SW416_250910	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886410) - continued									
EP2515408-093	0089_SW416_250910	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886417)									
EP2515408-097	0089_PW304_250912	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515408-112	0089_PW315_250910	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886948)									
EP2515508-003	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886948) - continued									
EP2515508-003	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515508-017	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886987)									
EP2515508-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515508-025	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886987) - continued									
EP2515508-025	Anonymous	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6886991)									
EP2515508-027	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6889213)									
EP2515706-001	Anonymous	EP231X-LL: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.002	µg/L	0.002	0.002	0.0	No Limit
		EP231X-LL: Perfluorohexanoic acid (PFHxA)	307-24-4	0.002	µg/L	0.008	0.006	21.3	No Limit
		EP231X-LL: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.002	µg/L	0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorooctanoic acid (PFOA)	335-67-1	0.002	µg/L	0.003	0.003	0.0	No Limit
		EP231X-LL: Perfluorononanoic acid (PFNA)	375-95-1	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorodecanoic acid (PFDA)	335-76-2	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: Perfluorobutanoic acid (PFBA)	375-22-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886366)									
EP2515408-080	0089_SW373_250912	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886378)									
EP2515408-009	0089_MW195D_250918	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-025	0089_MW236_250917	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886385)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886385) - continued									
EP2515408-029	0089_MW242_250917	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-036	0089_MW257_250915	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886410)									
EP2515408-081	0089_SW353_250911	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-093	0089_SW416_250910	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886410) - continued									
EP2515408-093	0089_SW416_250910	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886417)									
EP2515408-097	0089_PW304_250912	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-112	0089_PW315_250910	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886948)									
EP2515508-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886948) - continued									
EP2515508-003	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515508-017	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886987)									
EP2515508-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515508-025	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886987) - continued									
EP2515508-025	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6886991)									
EP2515508-027	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6889213)									
EP2515706-001	Anonymous	EP231X-LL: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.002	µg/L	<0.002	<0.002	0.0	No Limit
		EP231X-LL: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.005	µg/L	<0.005	<0.005	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886366)									
EP2515408-080	0089_SW373_250912	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886378)									
EP2515408-009	0089_MW195D_250918	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-025	0089_MW236_250917	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886385)									
EP2515408-029	0089_MW242_250917	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-036	0089_MW257_250915	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886385) - continued									
EP2515408-036	0089_MW257_250915	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886410)									
EP2515408-081	0089_SW353_250911	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-093	0089_SW416_250910	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886417)									
EP2515408-097	0089_PW304_250912	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515408-112	0089_PW315_250910	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886948)									
EP2515508-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886948) - continued									
EP2515508-003	Anonymous	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515508-017	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886987)									
EP2515508-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515508-025	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6886991)									
EP2515508-027	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6889213)									
EP2515706-001	Anonymous	EP231X-LL: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.005	µg/L	<0.005	<0.005	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6889213) - continued									
EP2515706-001	Anonymous	EP231X-LL: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.005	µg/L	<0.005	<0.005	0.0	No Limit
		EP231X-LL: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.005	µg/L	<0.005	<0.005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6886366)									
EP2515408-080	0089_SW373_250912	EP231X: Sum of PFAS	----	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.02	0.02	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6886378)									
EP2515408-009	0089_MW195D_250918	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2515408-025	0089_MW236_250917	EP231X: Sum of PFAS	----	0.01 (0.02)*	µg/L	52.8	52.8	0.1	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01 (0.02)*	µg/L	49.1	49.1	0.0	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01 (0.02)*	µg/L	51.3	51.4	0.1	0% - 20%
EP231P: PFAS Sums (QC Lot: 6886385)									
EP2515408-029	0089_MW242_250917	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2515408-036	0089_MW257_250915	EP231X: Sum of PFAS	----	0.01	µg/L	0.55	0.54	1.8	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.37	0.36	2.7	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.55	0.54	1.8	0% - 20%
EP231P: PFAS Sums (QC Lot: 6886410)									
EP2515408-081	0089_SW353_250911	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2515408-093	0089_SW416_250910	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6886417)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 6886417) - continued									
EP2515408-097	0089_PW304_250912	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2515408-112	0089_PW315_250910	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6886948)									
EP2515508-003	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.18	0.17	5.7	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.18	0.17	5.7	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.18	0.17	5.7	0% - 50%
EP2515508-017	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.74	0.76	2.7	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.70	0.73	4.2	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.74	0.76	2.7	0% - 20%
EP231P: PFAS Sums (QC Lot: 6886987)									
EP2515508-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.06	0.06	0.0	No Limit
EP2515508-025	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.14	0.17	19.4	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.14	0.17	19.4	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.14	0.17	19.4	0% - 50%
EP231P: PFAS Sums (QC Lot: 6886991)									
EP2515508-027	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.17	0.16	6.1	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.17	0.16	6.1	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.17	0.16	6.1	0% - 50%
EP231P: PFAS Sums (QC Lot: 6889213)									
EP2515706-001	Anonymous	EP231X-LL: Sum of PFAS	----	0.002	µg/L	0.087	0.094	7.7	0% - 20%
		EP231X-LL: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.002	µg/L	0.064	0.073	13.1	0% - 20%
		EP231X-LL: Sum of PFAS (WA DER List)	----	0.002	µg/L	0.082	0.088	7.1	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6882638)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	98.6	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.8	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	74.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	77.7	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	72.4	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	94.2	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	75.4	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6882644)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	92.7	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	93.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	113	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	92.2	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	105	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	95.8	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6882638)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	94.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.0	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	# 146	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.0	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.4	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.4	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.4	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6882644)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	93.8	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	69.0	132

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6882644) - continued								
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	115	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6882638)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	114	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	82.2	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.4	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	81.7	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.6	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6882644)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.3	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.6	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.5	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6882638)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	107	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	102	64.0	140

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6882638) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	86.7	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	97.1	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6882644)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	93.2	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	91.9	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	101	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	100	54.8	124
EP231P: PFAS Sums (QCLot: 6882638)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6882644)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886366)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	101	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	97.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	89.5	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	91.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	92.3	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	86.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886378)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	91.3	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	99.7	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	84.9	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	100	69.0	134

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886378) - continued								
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	89.2	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	95.8	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	90.7	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886385)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	98.5	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	106	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	88.3	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	87.5	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	102	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	92.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886410)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	85.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	97.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	87.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	84.9	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	97.3	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	96.3	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886417)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	93.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	98.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	86.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	106	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	93.1	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	104	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	107	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886948)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	110	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	113	71.0	127

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886948) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	109	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	111	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	106	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	105	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	110	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886987)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	108	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	122	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	98.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	127	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	89.9	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	109	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	107	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886991)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	111	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	98.0	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	94.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	97.8	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	126	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	121	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6887069)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	109	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	118	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	100	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	108	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	106	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	105	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	108	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6889199)								
EP231X-LL: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.01	µg/L	<0.01	0.02298 µg/L	107	70.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6889199) - continued								
EP231X-LL: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.002	µg/L	<0.002	0.0222 µg/L	107	72.0	130
EP231X-LL: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.002	µg/L	<0.002	0.0235 µg/L	94.0	71.0	127
EP231X-LL: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.002	µg/L	<0.002	0.0237 µg/L	89.9	68.0	131
EP231X-LL: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.002	µg/L	<0.002	0.0238 µg/L	101	69.0	134
EP231X-LL: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.002	µg/L	<0.002	0.0232 µg/L	104	65.0	140
EP231X-LL: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.002	µg/L	<0.002	0.024 µg/L	86.7	70.0	130
EP231X-LL: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.002	µg/L	<0.002	0.0241 µg/L	87.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6889213)								
EP231X-LL: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.01	µg/L	<0.01	0.02298 µg/L	115	70.0	130
EP231X-LL: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.002	µg/L	<0.002	0.0222 µg/L	99.1	72.0	130
EP231X-LL: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.002	µg/L	<0.002	0.0235 µg/L	105	71.0	127
EP231X-LL: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.002	µg/L	<0.002	0.0237 µg/L	91.6	68.0	131
EP231X-LL: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.002	µg/L	<0.002	0.0238 µg/L	104	69.0	134
EP231X-LL: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.002	µg/L	<0.002	0.0232 µg/L	127	65.0	140
EP231X-LL: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.002	µg/L	<0.002	0.024 µg/L	97.5	70.0	130
EP231X-LL: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.002	µg/L	<0.002	0.0241 µg/L	91.3	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886366)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	97.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	91.8	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	96.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	102	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	96.4	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	99.2	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886378)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	91.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	92.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	87.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	89.6	72.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886378) - continued								
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	93.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	93.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	102	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	95.0	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	102	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886385)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	95.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	94.0	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	92.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	91.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	89.2	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	89.0	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886410)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	94.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	91.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	88.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	87.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	88.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	83.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	81.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	82.6	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	90.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	103	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	91.0	46.1	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886417)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	94.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	91.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	91.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	85.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	94.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	95.4	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	89.4	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886948)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	110	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	114	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	107	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	110	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886987)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	107	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	104	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.8	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886987) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	104	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	97.0	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886991)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	108	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	110	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	139	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	99.4	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	101	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6887069)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	107	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	106	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	114	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	117	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	118	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	120	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	108	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	110	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6889199)								
EP231X-LL: Perfluorobutanoic acid (PFBA)	375-22-4	0.01	µg/L	<0.01	0.125 µg/L	86.3	73.0	129
EP231X-LL: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.002	µg/L	<0.002	0.025 µg/L	97.6	72.0	129
EP231X-LL: Perfluorohexanoic acid (PFHxA)	307-24-4	0.002	µg/L	<0.002	0.025 µg/L	92.0	72.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6889199) - continued								
EP231X-LL: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.002	µg/L	<0.002	0.025 µg/L	98.0	72.0	130
EP231X-LL: Perfluorooctanoic acid (PFOA)	335-67-1	0.002	µg/L	<0.002	0.025 µg/L	127	71.0	133
EP231X-LL: Perfluorononanoic acid (PFNA)	375-95-1	0.002	µg/L	<0.002	0.025 µg/L	98.4	69.0	130
EP231X-LL: Perfluorodecanoic acid (PFDA)	335-76-2	0.002	µg/L	<0.002	0.025 µg/L	113	71.0	129
EP231X-LL: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.002	µg/L	<0.002	0.025 µg/L	96.4	69.0	133
EP231X-LL: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.002	µg/L	<0.002	0.025 µg/L	102	72.0	134
EP231X-LL: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	µg/L	<0.002	0.025 µg/L	102	65.0	144
EP231X-LL: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.005	µg/L	<0.005	0.025 µg/L	100	71.0	132
EP231X-LL: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.005	µg/L	<0.005	0.025 µg/L	87.2	38.8	149
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6889213)								
EP231X-LL: Perfluorobutanoic acid (PFBA)	375-22-4	0.01	µg/L	<0.01	0.125 µg/L	98.3	73.0	129
EP231X-LL: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.002	µg/L	<0.002	0.025 µg/L	98.4	72.0	129
EP231X-LL: Perfluorohexanoic acid (PFHxA)	307-24-4	0.002	µg/L	<0.002	0.025 µg/L	95.6	72.0	129
EP231X-LL: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.002	µg/L	<0.002	0.025 µg/L	92.8	72.0	130
EP231X-LL: Perfluorooctanoic acid (PFOA)	335-67-1	0.002	µg/L	<0.002	0.025 µg/L	125	71.0	133
EP231X-LL: Perfluorononanoic acid (PFNA)	375-95-1	0.002	µg/L	<0.002	0.025 µg/L	96.0	69.0	130
EP231X-LL: Perfluorodecanoic acid (PFDA)	335-76-2	0.002	µg/L	<0.002	0.025 µg/L	103	71.0	129
EP231X-LL: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.002	µg/L	<0.002	0.025 µg/L	102	69.0	133
EP231X-LL: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.002	µg/L	<0.002	0.025 µg/L	103	72.0	134
EP231X-LL: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	µg/L	<0.002	0.025 µg/L	96.8	65.0	144
EP231X-LL: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.005	µg/L	<0.005	0.025 µg/L	99.2	71.0	132
EP231X-LL: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.005	µg/L	<0.005	0.025 µg/L	123	38.8	149
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886366)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	103	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	98.4	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	102	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	102	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	96.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886378)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886378) - continued								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	91.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	85.6	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	91.8	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886385)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	84.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	100	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	94.8	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	102	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	100	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	97.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886410)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	88.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	94.3	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.5	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.4	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.0	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	91.8	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886417)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	75.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	91.1	68.0	141

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886417) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	85.0	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	92.2	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	93.4	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886948)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	109	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	118	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	108	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	113	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	113	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	114	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886987)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	98.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	135	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	130	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	116	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	105	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886991)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	95.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	104	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	109	60.5	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886991) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	112	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	96.7	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	113	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6887069)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	112	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	109	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	104	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	115	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	115	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	109	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6889199)								
EP231X-LL: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.002	µg/L	<0.002	0.025 µg/L	111	67.0	137
EP231X-LL: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.005	µg/L	<0.005	0.0625 µg/L	112	68.0	141
EP231X-LL: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.005	µg/L	<0.005	0.0625 µg/L	103	57.9	141
EP231X-LL: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.005	µg/L	<0.005	0.0625 µg/L	119	63.3	134
EP231X-LL: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.005	µg/L	<0.005	0.0625 µg/L	102	60.0	136
EP231X-LL: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.002	µg/L	<0.002	0.025 µg/L	102	65.0	136
EP231X-LL: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.002	µg/L	<0.002	0.025 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6889213)								
EP231X-LL: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.002	µg/L	<0.002	0.025 µg/L	97.6	67.0	137
EP231X-LL: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.005	µg/L	<0.005	0.0625 µg/L	112	68.0	141
EP231X-LL: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.005	µg/L	<0.005	0.0625 µg/L	106	57.9	141

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6889213) - continued								
EP231X-LL: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.005	µg/L	<0.005	0.0625 µg/L	102	63.3	134
EP231X-LL: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.005	µg/L	<0.005	0.0625 µg/L	102	60.0	136
EP231X-LL: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.002	µg/L	<0.002	0.025 µg/L	95.2	65.0	136
EP231X-LL: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.002	µg/L	<0.002	0.025 µg/L	90.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886366)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	95.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	95.7	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	94.6	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	90.9	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886378)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	90.7	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	98.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	90.6	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	91.5	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886385)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	102	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	99.4	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	79.9	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886410)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	94.5	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	97.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	88.8	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886417)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	93.5	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	93.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	95.6	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	89.0	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886948)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	112	63.0	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886948) - continued								
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	114	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	114	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	116	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886987)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	110	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	115	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	108	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	92.9	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886991)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	104	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	114	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	116	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	85.9	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6887069)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	114	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	114	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	114	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	126	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6889199)								
EP231X-LL: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.005	µg/L	<0.005	0.0234 µg/L	95.3	63.0	143
EP231X-LL: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.005	µg/L	<0.005	0.0238 µg/L	110	64.0	140
EP231X-LL: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.005	µg/L	<0.005	0.024 µg/L	108	67.0	138
EP231X-LL: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.005	µg/L	<0.005	0.0242 µg/L	107	53.1	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6889213)								
EP231X-LL: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.005	µg/L	<0.005	0.0234 µg/L	100	63.0	143
EP231X-LL: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.005	µg/L	<0.005	0.0238 µg/L	100	64.0	140
EP231X-LL: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.005	µg/L	<0.005	0.024 µg/L	98.3	67.0	138
EP231X-LL: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.005	µg/L	<0.005	0.0242 µg/L	95.9	53.1	133
EP231P: PFAS Sums (QCLot: 6886366)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886378)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231P: PFAS Sums (QCLot: 6886378) - continued								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886385)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886410)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886417)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886948)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886987)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6886991)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6887069)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	LCS: Spike Recovery (%)	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 6887069) - continued								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6889199)								
EP231X-LL: Sum of PFAS	----	0.002	µg/L	<0.002	----	----	----	----
EP231X-LL: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.002	µg/L	<0.002	----	----	----	----
EP231X-LL: Sum of PFAS (WA DER List)	----	0.002	µg/L	<0.002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6889213)								
EP231X-LL: Sum of PFAS	----	0.002	µg/L	<0.002	----	----	----	----
EP231X-LL: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.002	µg/L	<0.002	----	----	----	----
EP231X-LL: Sum of PFAS (WA DER List)	----	0.002	µg/L	<0.002	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6882638)							
EP2515408-042	0089_SD340_250909	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	100	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	75.2	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	84.3	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	74.3	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	77.6	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	86.2	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	94.2	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6882644)							
EP2515408-062	0089_SD314_250910	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	91.8	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	100	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	91.1	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	106	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	100	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	112	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	99.7	59.0	134

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6882638)							
EP2515408-042	0089_SD340_250909	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	93.1	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	92.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	107	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	76.0	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	91.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	87.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	72.8	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	97.2	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	113	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	101	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	96.0	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6882644)							
EP2515408-062	0089_SD314_250910	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	92.0	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	101	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	91.2	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	94.4	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	92.8	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	88.4	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	95.6	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	95.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	97.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	102	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	110	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6882638)							
EP2515408-042	0089_SD340_250909	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	94.8	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	94.7	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	78.5	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	97.8	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	81.5	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	104	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	91.6	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6882644)							
EP2515408-062	0089_SD314_250910	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	89.6	48.0	128

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6882644) - continued							
EP2515408-062	0089_SD314_250910	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	99.5	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	88.3	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	92.8	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	98.6	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	108	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6882638)							
EP2515408-042	0089_SD340_250909	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	102	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	111	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	85.9	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	75.8	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6882644)							
EP2515408-062	0089_SD314_250910	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	94.4	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	87.7	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	103	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	93.3	60.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886378)							
EP2515408-014	0089_MW216_250915	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	92.5	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	103	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	84.0	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	101	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	89.7	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	90.0	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	89.0	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886385)							
EP2515408-032	0089_MW496_250916	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	89.9	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	108	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	69.2	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	88.1	69.0	134

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886385) - continued							
EP2515408-032	0089_MW496_250916	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	102	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	100.0	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886410)							
EP2515408-081	0089_SW353_250911	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	84.7	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	102	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	87.1	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	98.8	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	84.2	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	97.8	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	93.6	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886417)							
EP2515408-112	0089_PW315_250910	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	92.4	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	95.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	84.0	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	101	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	93.8	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	111	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	103	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886948)							
EP2515508-017	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	107	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	112	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	113	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	112	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	121	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	103	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	102	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886987)							
EP2515508-020	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	112	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	122	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	98.3	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	122	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	89.3	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	122	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	110	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886991)							
EP2515508-031	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	105	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6886991) - continued							
EP2515508-031	Anonymous	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	100	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	94.4	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	99.8	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	117	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	104	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886378)							
EP2515408-014	0089_MW216_250915	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	104	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	# Not Determined	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	# Not Determined	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	# Not Determined	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	87.5	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	95.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	115	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	93.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	93.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	98.1	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	95.7	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	97.8	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886385)							
EP2515408-032	0089_MW496_250916	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	84.2	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	90.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	83.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	84.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.5	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	86.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	91.4	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	79.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	76.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	83.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	84.8	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	79.0	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886410)							
EP2515408-081	0089_SW353_250911	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	91.9	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	91.8	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886410) - continued							
EP2515408-081	0089_SW353_250911	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	91.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	92.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	86.2	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	86.0	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	83.2	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	86.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	82.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	104	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	90.9	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886417)							
EP2515408-112	0089_PW315_250910	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	91.7	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	88.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	89.1	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	89.2	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	89.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	88.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	88.2	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	88.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	93.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	92.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	98.6	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	86.0	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886948)							
EP2515508-017	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	105	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	106	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	100	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	106	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	111	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	108	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	123	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	109	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	114	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	105	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	105	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	108	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886987)							
EP2515508-020	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	104	73.0	142

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886987) - continued							
EP2515508-020	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.7	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	99.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	100	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	108	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	105	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	110	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	117	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	107	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	98.0	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6886991)							
EP2515508-031	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	97.0	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	92.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.7	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.4	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	106	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	94.6	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	106	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	123	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	105	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	100	70.0	131
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886378)							
EP2515408-014	0089_MW216_250915	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	103	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	95.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	103	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886385)							
EP2515408-032	0089_MW496_250916	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	74.6	59.0	135

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886385) - continued							
EP2515408-032	0089_MW496_250916	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	102	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	96.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	95.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	93.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	82.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886410)							
EP2515408-081	0089_SW353_250911	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	93.2	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	116	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	101	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	102	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	97.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	98.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	86.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886417)							
EP2515408-112	0089_PW315_250910	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	76.2	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	91.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	84.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	93.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	96.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	93.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	93.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886948)							
EP2515508-017	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	114	59.0	135

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886948) - continued							
EP2515508-017	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	112	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	106	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	109	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	110	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	107	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886987)							
EP2515508-020	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	99.4	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	130	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	128	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	116	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	116	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	110	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6886991)							
EP2515508-031	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.6	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	107	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	106	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	113	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	98.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	98.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886378)							
EP2515408-014	0089_MW216_250915	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	91.9	63.0	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886378) - continued							
EP2515408-014	0089_MW216_250915	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	# Not Determined	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	102	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	101	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886385)							
EP2515408-032	0089_MW496_250916	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	104	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	100	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	93.5	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	110	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886410)							
EP2515408-081	0089_SW353_250911	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	94.0	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	95.9	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	95.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886417)							
EP2515408-112	0089_PW315_250910	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	91.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	92.7	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	97.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	92.9	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886948)							
EP2515508-017	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	108	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	115	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	110	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886987)							
EP2515508-020	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	119	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	116	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	115	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	78.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6886991)							
EP2515508-031	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	117	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	114	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	109	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	73.1	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2515408**	Page	: 1 of 25
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 19-Sep-2025
Site	: WA_0089_PFASOMP_25	Issue Date	: 29-Dec-2025
Sampler	: [redacted]	No. of samples received	: 160
Order number	: 12641234/02.2.6	No. of samples analysed	: 160

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP231B: Perfluoroalkyl Carboxylic Acids	QC-6882638-002	----	**Perfluorohexanoic acid (PFHxA)**	307-24-4	146 %	70.0-132%	**Recovery greater than upper control limit**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	EP2515408--032	0089_MW496_250916	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EP2515508--031	Anonymous	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	EP2515408--014	0089_MW216_250915	**Perfluoropentanoic acid (PFPeA)**	2706-90-3	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	EP2515408--014	0089_MW216_250915	**Perfluorohexanoic acid (PFHxA)**	307-24-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	EP2515408--014	0089_MW216_250915	**Perfluoroheptanoic acid (PFHpA)**	375-85-9	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2515408--014	0089_MW216_250915	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	27619-97-2	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**

Method / **Container** / Client Sample ID(s)	*Extraction / Preparation*			*Analysis*		
	Date extracted	*Due for extraction*	***Days overdue***	*Date analysed*	*Due for analysis*	***Days overdue***
EA055: Moisture Content (Dried @ 105-110°C)						
HDPE Soil Jar						
0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909, 0089_QC101_250909	----	----	----	25-Sep-2025	23-Sep-2025	**2**

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Days overdue	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Days overdue
EA055: Moisture Content (Dried @ 105-110°C) - Analysis Holding Time Compliance						
HDPE Soil Jar						
0089_SD306_250910, 0089_SD307_250910, 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	----	----	----	25-Sep-2025	24-Sep-2025	1

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Analytical Methods	Method	Count: QC	Count: Regular	Rate (%): Actual	Rate (%): Expected	Quality Control Specification
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	1	17	5.88	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	0	17	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909, 0089_QC101_250909	**09-Sep-2025**	**----**	----	----	**25-Sep-2025**	23-Sep-2025	×
HDPE Soil Jar (EA055)							
0089_SD306_250910, 0089_SD307_250910, 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	**10-Sep-2025**	**----**	----	----	**25-Sep-2025**	24-Sep-2025	×
HDPE Soil Jar (EA055)							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C) - Continued							
0089_SD350_250911, 0089_SD351_250911, 0089_SD352_250911, 0089_SD380_250911, 0089_SD381_250911, 0089_SD401_250911	**11-Sep-2025**	**----**	----	----	**25-Sep-2025**	25-Sep-2025	✓
HDPE Soil Jar (EA055) 0089_SD304_250912, 0089_SD345_250912, 0089_SD367_250912, 0089_SD368_250912, 0089_SD369_250912, 0089_SD346_250912, 0089_QC105_250912	**12-Sep-2025**	**----**	----	----	**25-Sep-2025**	26-Sep-2025	✓
HDPE Soil Jar (EA055) 0089_SD405_250916, 0089_SD407_250916, 0089_SD409_250916, 0089_SD374_250916, 0089_SD375_250916, 0089_QC111_250916, 0089_SD378_250916	**16-Sep-2025**	**----**	----	----	**25-Sep-2025**	30-Sep-2025	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC101_250909	**09-Sep-2025**	**30-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250910, 0089_SD307_250910	**10-Sep-2025**	**26-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	**10-Sep-2025**	**30-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250911, 0089_SD351_250911, 0089_SD352_250911, 0089_SD380_250911, 0089_SD381_250911, 0089_SD401_250911	**11-Sep-2025**	**26-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250912, 0089_SD345_250912, 0089_SD367_250912, 0089_SD368_250912, 0089_SD369_250912, 0089_SD346_250912	**12-Sep-2025**	**26-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC105_250912	**12-Sep-2025**	**30-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD405_250916, 0089_SD407_250916, 0089_SD409_250916, 0089_SD374_250916, 0089_SD375_250916, 0089_QC111_250916, 0089_SD378_250916	**16-Sep-2025**	**30-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC101_250909	**09-Sep-2025**	**30-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250910, 0089_SD307_250910	**10-Sep-2025**	**26-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	**10-Sep-2025**	**30-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250911, 0089_SD351_250911, 0089_SD352_250911, 0089_SD380_250911, 0089_SD381_250911, 0089_SD401_250911	**11-Sep-2025**	**26-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250912, 0089_SD345_250912, 0089_SD367_250912, 0089_SD368_250912, 0089_SD369_250912, 0089_SD346_250912	**12-Sep-2025**	**26-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC105_250912	**12-Sep-2025**	**30-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD405_250916, 0089_SD407_250916, 0089_SD409_250916, 0089_SD374_250916, 0089_SD375_250916, 0089_QC111_250916, 0089_SD378_250916	**16-Sep-2025**	**30-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC101_250909	**09-Sep-2025**	**30-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250910, 0089_SD307_250910	**10-Sep-2025**	**26-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	**10-Sep-2025**	**30-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250911, 0089_SD351_250911, 0089_SD352_250911, 0089_SD380_250911, 0089_SD381_250911, 0089_SD401_250911	**11-Sep-2025**	**26-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250912, 0089_SD345_250912, 0089_SD367_250912, 0089_SD368_250912, 0089_SD369_250912, 0089_SD346_250912	**12-Sep-2025**	**26-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC105_250912	**12-Sep-2025**	**30-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD405_250916, 0089_SD407_250916, 0089_SD409_250916, 0089_SD374_250916, 0089_SD375_250916, 0089_QC111_250916, 0089_SD378_250916	**16-Sep-2025**	**30-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC101_250909	**09-Sep-2025**	**30-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250910, 0089_SD307_250910	**10-Sep-2025**	**26-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	**10-Sep-2025**	**30-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250911, 0089_SD351_250911, 0089_SD352_250911, 0089_SD380_250911, 0089_SD381_250911, 0089_SD401_250911	**11-Sep-2025**	**26-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250912, 0089_SD345_250912, 0089_SD367_250912, 0089_SD368_250912, 0089_SD369_250912, 0089_SD346_250912	**12-Sep-2025**	**26-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC105_250912	**12-Sep-2025**	**30-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD405_250916, 0089_SD407_250916, 0089_SD409_250916, 0089_SD374_250916, 0089_SD375_250916, 0089_QC111_250916, 0089_SD378_250916	**16-Sep-2025**	**30-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0089_SD335_250909, 0089_SD340_250909, 0089_SD341_250909, 0089_SD362_250909, 0089_SD363_250909, 0089_SD364_250909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC101_250909	**09-Sep-2025**	**30-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD306_250910, 0089_SD307_250910	**10-Sep-2025**	**26-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD308_250910, 0089_SD314_250910, 0089_SD315_250910, 0089_SD316_250910, 0089_SD411_250910, 0089_SD413_250910, 0089_SD415_250910, 0089_QC103_250910	**10-Sep-2025**	**30-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD350_250911, 0089_SD351_250911, 0089_SD352_250911, 0089_SD380_250911, 0089_SD381_250911, 0089_SD401_250911	**11-Sep-2025**	**26-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD304_250912, 0089_SD345_250912, 0089_SD367_250912, 0089_SD368_250912, 0089_SD369_250912, 0089_SD346_250912	**12-Sep-2025**	**26-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	05-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_QC105_250912	**12-Sep-2025**	**30-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓
HDPE Soil Jar (EP231X) 0089_SD405_250916, 0089_SD407_250916, 0089_SD409_250916, 0089_SD374_250916, 0089_SD375_250916, 0089_QC111_250916, 0089_SD378_250916	**16-Sep-2025**	**30-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	09-Nov-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_PW363_250909, 0089_PW335_250909, 0089_PW340_250909, 0089_PW341_250909, 0089_PW362_250909, 0089_QC301_250909, 0089_QC401_250909, 0088_QC102_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW125_250909, 0089_MW126_250909, 0089_MW127_250909, 0089_SW130_250909, 0089_SW132_250909, 0089_SW134_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_PW364_240909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW411_250910, 0089_PW413_250910, 0089_PW415_250910, 0089_QC104_250910, 0089_QC302_250910, 0089_QC402_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250910, 0089_SW310_250910, 0089_SW311_250910, 0089_SW412_250910, 0089_SW414_250910, 0089_SW416_250910, 0089_PW306_250910, 0089_PW307_250910, 0089_PW308_250910, 0089_PW314_250910, 0089_PW315_250910, 0089_PW316_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC303_250911, 0089_QC403_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250911, 0089_SW382_250911, 0089_SW383_250911, 0089_SW384_250911, 0089_PW350_250911, 0089_PW351_250911, 0089_PW352_250911, 0089_PW380_250911, 0089_PW381_250911, 0089_PW401_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**30-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC106_250912, 0089_QC108_250912, 0089_QC107_250912, 0089_QC304_250912, 0089_QC404_2500912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250912, 0089_SW370_250912, 0089_SW371_250912, 0089_SW372_250912, 0089_SW373_250912, 0089_PW304_250912, 0089_PW345_250912, 0089_PW367_250912, 0089_PW368_250912, 0089_PW369_250912, 0089_PW346_250912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0089_MW255_250915, 0089_MW256_250915, 0089_MW257_250915, 0089_MW258_250915, 0089_MW259_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**01-Oct-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC305_250915, 0089_QC109_250915, 0089_QC405_250915, 0089_QC110_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**26-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250915, 0089_MW215_250915, 0089_MW216_250915, 0089_MW217_250915, 0089_MW220_250915, 0089_MW224_250915, 0089_MW225_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**30-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW228_250016, 0089_MW233_250916, 0089_MW496_250916, 0089_MW516_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**01-Oct-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW407_250916, 0089_PW409_250916, 0089_PW374_250916, 0089_PW375_250916, 0089_PW378_250916, 0089_QC112_250916, 0089_QC406_250916, 0089_QC306_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**26-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW203_250916, 0089_MW226_250916, 0089_SW406_250016, 0089_SW408_250916, 0089_SW410_250916, 0089_SW317_250916, 0089_SW318_250916, 0089_SW319_250916, 0089_PW405_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW268_250917, 0089_MW269_250917, 0089_MW238_250917, 0089_MW239_250917, 0089_MW240_250917, 0089_MW242_250917, 0089_MW243_250917, 0089_MW245_250917, 0089_MW553_250917, 0089_MW010_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**01-Oct-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC113_250917, 0089_QC307_250917, 0089_QC407_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**26-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250917, 0089_MW236_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_MW282_250917	**17-Sep-2025**	**26-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC308_250918, 0089_QC408_250918, 0089_QC114_250918, 0089_MW079_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**26-Sep-2025**	17-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0089_MW173_250918, 0089_MW196_250918, 0089_MW199_250918, 0089_MW195D_250918, 0089_MW468_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**30-Sep-2025**	17-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0089_PW363_250909, 0089_PW335_250909, 0089_PW340_250909, 0089_PW341_250909, 0089_PW362_250909, 0089_QC301_250909, 0089_QC401_250909, 0088_QC102_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW125_250909, 0089_MW126_250909, 0089_MW127_250909, 0089_SW130_250909, 0089_SW132_250909, 0089_SW134_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_PW364_240909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW411_250910, 0089_PW413_250910, 0089_PW415_250910, 0089_QC104_250910, 0089_QC302_250910, 0089_QC402_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250910, 0089_SW310_250910, 0089_SW311_250910, 0089_SW412_250910, 0089_SW414_250910, 0089_SW416_250910, 0089_PW306_250910, 0089_PW307_250910, 0089_PW308_250910, 0089_PW314_250910, 0089_PW315_250910, 0089_PW316_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC303_250911, 0089_QC403_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250911, 0089_SW382_250911, 0089_SW383_250911, 0089_SW384_250911, 0089_PW350_250911, 0089_PW351_250911, 0089_PW352_250911, 0089_PW380_250911, 0089_PW381_250911, 0089_PW401_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**30-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC106_250912, 0089_QC108_250912, 0089_QC107_250912, 0089_QC304_250912, 0089_QC404_2500912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250912, 0089_SW370_250912, 0089_SW371_250912, 0089_SW372_250912, 0089_SW373_250912, 0089_PW304_250912, 0089_PW345_250912, 0089_PW367_250912, 0089_PW368_250912, 0089_PW369_250912, 0089_PW346_250912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0089_MW255_250915, 0089_MW256_250915, 0089_MW257_250915, 0089_MW258_250915, 0089_MW259_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**01-Oct-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC305_250915, 0089_QC109_250915, 0089_QC405_250915, 0089_QC110_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**26-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250915, 0089_MW215_250915, 0089_MW216_250915, 0089_MW217_250915, 0089_MW220_250915, 0089_MW224_250915, 0089_MW225_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**30-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW228_250016, 0089_MW233_250916, 0089_MW496_250916, 0089_MW516_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**01-Oct-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW407_250916, 0089_PW409_250916, 0089_PW374_250916, 0089_PW375_250916, 0089_PW378_250916, 0089_QC112_250916, 0089_QC406_250916, 0089_QC306_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**26-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW203_250916, 0089_MW226_250916, 0089_SW406_250016, 0089_SW408_250916, 0089_SW410_250916, 0089_SW317_250916, 0089_SW318_250916, 0089_SW319_250916, 0089_PW405_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW268_250917, 0089_MW269_250917, 0089_MW238_250917, 0089_MW239_250917, 0089_MW240_250917, 0089_MW242_250917, 0089_MW243_250917, 0089_MW245_250917, 0089_MW553_250917, 0089_MW010_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**01-Oct-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC113_250917, 0089_QC307_250917, 0089_QC407_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**26-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250917, 0089_MW236_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_MW282_250917	**17-Sep-2025**	**26-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC308_250918, 0089_QC408_250918, 0089_QC114_250918, 0089_MW079_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**26-Sep-2025**	17-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0089_MW173_250918, 0089_MW196_250918, 0089_MW199_250918, 0089_MW195D_250918, 0089_MW468_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**30-Sep-2025**	17-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0089_PW363_250909, 0089_PW335_250909, 0089_PW340_250909, 0089_PW341_250909, 0089_PW362_250909, 0089_QC301_250909, 0089_QC401_250909, 0088_QC102_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW125_250909, 0089_MW126_250909, 0089_MW127_250909, 0089_SW130_250909, 0089_SW132_250909, 0089_SW134_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_PW364_240909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW411_250910, 0089_PW413_250910, 0089_PW415_250910, 0089_QC104_250910, 0089_QC302_250910, 0089_QC402_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250910, 0089_SW310_250910, 0089_SW311_250910, 0089_SW412_250910, 0089_SW414_250910, 0089_SW416_250910, 0089_PW306_250910, 0089_PW307_250910, 0089_PW308_250910, 0089_PW314_250910, 0089_PW315_250910, 0089_PW316_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC303_250911, 0089_QC403_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250911, 0089_SW382_250911, 0089_SW383_250911, 0089_SW384_250911, 0089_PW350_250911, 0089_PW351_250911, 0089_PW352_250911, 0089_PW380_250911, 0089_PW381_250911, 0089_PW401_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**30-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC106_250912, 0089_QC108_250912, 0089_QC107_250912, 0089_QC304_250912, 0089_QC404_2500912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250912, 0089_SW370_250912, 0089_SW371_250912, 0089_SW372_250912, 0089_SW373_250912, 0089_PW304_250912, 0089_PW345_250912, 0089_PW367_250912, 0089_PW368_250912, 0089_PW369_250912, 0089_PW346_250912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0089_MW255_250915, 0089_MW256_250915, 0089_MW257_250915, 0089_MW258_250915, 0089_MW259_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**01-Oct-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC305_250915, 0089_QC109_250915, 0089_QC405_250915, 0089_QC110_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**26-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250915, 0089_MW215_250915, 0089_MW216_250915, 0089_MW217_250915, 0089_MW220_250915, 0089_MW224_250915, 0089_MW225_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**30-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW228_250016, 0089_MW233_250916, 0089_MW496_250916, 0089_MW516_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**01-Oct-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW407_250916, 0089_PW409_250916, 0089_PW374_250916, 0089_PW375_250916, 0089_PW378_250916, 0089_QC112_250916, 0089_QC406_250916, 0089_QC306_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**26-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW203_250916, 0089_MW226_250916, 0089_SW406_250016, 0089_SW408_250916, 0089_SW410_250916, 0089_SW317_250916, 0089_SW318_250916, 0089_SW319_250916, 0089_PW405_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW268_250917, 0089_MW269_250917, 0089_MW238_250917, 0089_MW239_250917, 0089_MW240_250917, 0089_MW242_250917, 0089_MW243_250917, 0089_MW245_250917, 0089_MW553_250917, 0089_MW010_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**01-Oct-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC113_250917, 0089_QC307_250917, 0089_QC407_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**26-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250917, 0089_MW236_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_MW282_250917	**17-Sep-2025**	**26-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC308_250918, 0089_QC408_250918, 0089_QC114_250918, 0089_MW079_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**26-Sep-2025**	17-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0089_MW173_250918, 0089_MW196_250918, 0089_MW199_250918, 0089_MW195D_250918, 0089_MW468_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**30-Sep-2025**	17-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0089_PW363_250909, 0089_PW335_250909, 0089_PW340_250909, 0089_PW341_250909, 0089_PW362_250909, 0089_QC301_250909, 0089_QC401_250909, 0088_QC102_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW125_250909, 0089_MW126_250909, 0089_MW127_250909, 0089_SW130_250909, 0089_SW132_250909, 0089_SW134_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_PW364_240909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW411_250910, 0089_PW413_250910, 0089_PW415_250910, 0089_QC104_250910, 0089_QC302_250910, 0089_QC402_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250910, 0089_SW310_250910, 0089_SW311_250910, 0089_SW412_250910, 0089_SW414_250910, 0089_SW416_250910, 0089_PW306_250910, 0089_PW307_250910, 0089_PW308_250910, 0089_PW314_250910, 0089_PW315_250910, 0089_PW316_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC303_250911, 0089_QC403_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250911, 0089_SW382_250911, 0089_SW383_250911, 0089_SW384_250911, 0089_PW350_250911, 0089_PW351_250911, 0089_PW352_250911, 0089_PW380_250911, 0089_PW381_250911, 0089_PW401_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**30-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC106_250912, 0089_QC108_250912, 0089_QC107_250912, 0089_QC304_250912, 0089_QC404_2500912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250912, 0089_SW370_250912, 0089_SW371_250912, 0089_SW372_250912, 0089_SW373_250912, 0089_PW304_250912, 0089_PW345_250912, 0089_PW367_250912, 0089_PW368_250912, 0089_PW369_250912, 0089_PW346_250912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0089_MW255_250915, 0089_MW256_250915, 0089_MW257_250915, 0089_MW258_250915, 0089_MW259_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**01-Oct-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC305_250915, 0089_QC109_250915, 0089_QC405_250915, 0089_QC110_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**26-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250915, 0089_MW215_250915, 0089_MW216_250915, 0089_MW217_250915, 0089_MW220_250915, 0089_MW224_250915, 0089_MW225_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**30-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW228_250016, 0089_MW233_250916, 0089_MW496_250916, 0089_MW516_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**01-Oct-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW407_250916, 0089_PW409_250916, 0089_PW374_250916, 0089_PW375_250916, 0089_PW378_250916, 0089_QC112_250916, 0089_QC406_250916, 0089_QC306_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**26-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW203_250916, 0089_MW226_250916, 0089_SW406_250016, 0089_SW408_250916, 0089_SW410_250916, 0089_SW317_250916, 0089_SW318_250916, 0089_SW319_250916, 0089_PW405_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW268_250917, 0089_MW269_250917, 0089_MW238_250917, 0089_MW239_250917, 0089_MW240_250917, 0089_MW242_250917, 0089_MW243_250917, 0089_MW245_250917, 0089_MW553_250917, 0089_MW010_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**01-Oct-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC113_250917, 0089_QC307_250917, 0089_QC407_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**26-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250917, 0089_MW236_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_MW282_250917	**17-Sep-2025**	**26-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC308_250918, 0089_QC408_250918, 0089_QC114_250918, 0089_MW079_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**26-Sep-2025**	17-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0089_MW173_250918, 0089_MW196_250918, 0089_MW199_250918, 0089_MW195D_250918, 0089_MW468_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**30-Sep-2025**	17-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0089_PW363_250909, 0089_PW335_250909, 0089_PW340_250909, 0089_PW341_250909, 0089_PW362_250909, 0089_QC301_250909, 0089_QC401_250909, 0088_QC102_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**26-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW125_250909, 0089_MW126_250909, 0089_MW127_250909, 0089_SW130_250909, 0089_SW132_250909, 0089_SW134_250909	**09-Sep-2025**	**25-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_PW364_240909	**09-Sep-2025**	**26-Sep-2025**	08-Mar-2026	✓	**30-Sep-2025**	08-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW411_250910, 0089_PW413_250910, 0089_PW415_250910, 0089_QC104_250910, 0089_QC302_250910, 0089_QC402_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**26-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW309_250910, 0089_SW310_250910, 0089_SW311_250910, 0089_SW412_250910, 0089_SW414_250910, 0089_SW416_250910, 0089_PW306_250910, 0089_PW307_250910, 0089_PW308_250910, 0089_PW314_250910, 0089_PW315_250910, 0089_PW316_250910	**10-Sep-2025**	**25-Sep-2025**	09-Mar-2026	✓	**30-Sep-2025**	09-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC303_250911, 0089_QC403_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**26-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW353_250911, 0089_SW382_250911, 0089_SW383_250911, 0089_SW384_250911, 0089_PW350_250911, 0089_PW351_250911, 0089_PW352_250911, 0089_PW380_250911, 0089_PW381_250911, 0089_PW401_250911	**11-Sep-2025**	**25-Sep-2025**	10-Mar-2026	✓	**30-Sep-2025**	10-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC106_250912, 0089_QC108_250912, 0089_QC107_250912, 0089_QC304_250912, 0089_QC404_2500912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**26-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_SW305_250912, 0089_SW370_250912, 0089_SW371_250912, 0089_SW372_250912, 0089_SW373_250912, 0089_PW304_250912, 0089_PW345_250912, 0089_PW367_250912, 0089_PW368_250912, 0089_PW369_250912, 0089_PW346_250912	**12-Sep-2025**	**25-Sep-2025**	11-Mar-2026	✓	**30-Sep-2025**	11-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0089_MW255_250915, 0089_MW256_250915, 0089_MW257_250915, 0089_MW258_250915, 0089_MW259_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**01-Oct-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC305_250915, 0089_QC109_250915, 0089_QC405_250915, 0089_QC110_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**26-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW214_250915, 0089_MW215_250915, 0089_MW216_250915, 0089_MW217_250915, 0089_MW220_250915, 0089_MW224_250915, 0089_MW225_250915	**15-Sep-2025**	**25-Sep-2025**	14-Mar-2026	✓	**30-Sep-2025**	14-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW228_250016, 0089_MW233_250916, 0089_MW496_250916, 0089_MW516_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**01-Oct-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_PW407_250916, 0089_PW409_250916, 0089_PW374_250916, 0089_PW375_250916, 0089_PW378_250916, 0089_QC112_250916, 0089_QC406_250916, 0089_QC306_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**26-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW203_250916, 0089_MW226_250916, 0089_SW406_250016, 0089_SW408_250916, 0089_SW410_250916, 0089_SW317_250916, 0089_SW318_250916, 0089_SW319_250916, 0089_PW405_250916	**16-Sep-2025**	**25-Sep-2025**	15-Mar-2026	✓	**30-Sep-2025**	15-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW268_250917, 0089_MW269_250917, 0089_MW238_250917, 0089_MW239_250917, 0089_MW240_250917, 0089_MW242_250917, 0089_MW243_250917, 0089_MW245_250917, 0089_MW553_250917, 0089_MW010_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**01-Oct-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC113_250917, 0089_QC307_250917, 0089_QC407_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**26-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_MW288_250917, 0089_MW236_250917	**17-Sep-2025**	**25-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X-LL) 0089_MW282_250917	**17-Sep-2025**	**26-Sep-2025**	16-Mar-2026	✓	**30-Sep-2025**	16-Mar-2026	✓
HDPE (no PTFE) (EP231X) 0089_QC308_250918, 0089_QC408_250918, 0089_QC114_250918, 0089_MW079_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**26-Sep-2025**	17-Mar-2026	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0089_MW173_250918, 0089_MW196_250918, 0089_MW199_250918, 0089_MW195D_250918, 0089_MW468_250918	**18-Sep-2025**	**25-Sep-2025**	17-Mar-2026	✓	**30-Sep-2025**	17-Mar-2026	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	4	37	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	1	17	**5.88**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	14	139	**10.07**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	2	17	**11.76**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	9	139	**6.47**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	2	17	**11.76**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	9	139	**6.47**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	0	17	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	139	**5.04**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. A portion of homogenised sample is extracted along with isotope dilution standards (where commercially available) in a solution of ammonium acetate in acetonitrile/methanol. Where relevant, interferences from co-extracted organics are removed using dispersive clean-up media (dSPE). A portion of extract is combined with an equal volume of reagent water and filtered for instrumental analysis.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Data quality objectives for internal standard recoveries are based on US EPA method 1633.
Per- and Polyfluoroalkyl Substances (PFAS by LCMSMS	EP231X-LL	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Data quality objectives for internal standard recoveries are based on US EPA method 1633.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW125_250909		09/09/2025 03:51 PM	WATER	ALS: 2 Non ALS: 0	No		X							
002	0089_MW126_250909		09/09/2025 02:59 PM	WATER	ALS: 2 Non ALS: 0	No		X							
003	0089_MW127_250909		09/09/2025 03:45 PM	WATER	ALS: 2 Non ALS: 0	No		X							
004	0089_MW171_250918		18/09/2025 10:32 AM	WATER	ALS: 0 Non ALS: 0	No		X							
005	0089_MW173_250918		17/09/2025 11:11 AM	WATER	ALS: 2 Non ALS: 0	No		X							
006	0089_MW196_250918		18/09/2025 10:17 AM	WATER	ALS: 2 Non ALS: 0	No		X							
007	0089_MW199_250918		18/09/2025 10:15 AM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_MW203_250916		16/09/2025 04:41 PM	WATER	ALS: 2 Non ALS: 0	No		X							
009	0089_MW195D_250918		18/09/2025 10:13 AM	WATER	ALS: 4 Non ALS: 0	No		X							
010	0089_MW468_250918		18/09/2025 10:22 AM	WATER	ALS: 2 Non ALS: 0	No		X							
011	0089_MW288_250917		17/09/2025 10:45 AM	WATER	ALS: 2 Non ALS: 0	No		X							
012	0089_MW214_250915		15/09/2025 10:09 PM	WATER	ALS: 2 Non ALS: 0	No		X							
013	0089_MW215_250915		15/09/2025 10:11 PM	WATER	ALS: 2 Non ALS: 0	No		X							
014	0089_MW216_250915		15/09/2025 09:59 PM	WATER	ALS: 4 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_MW217_250915		15/09/2025 10:15 PM	WATER	ALS: 2 Non ALS: 0	No		X							
016	0089_MW220_250915		15/09/2025 10:29 PM	WATER	ALS: 2 Non ALS: 0	No		X							
017	0089_MW224_250915		15/09/2025 10:18 PM	WATER	ALS: 2 Non ALS: 0	No		X							
018	0089_MW225_250915		15/09/2025 10:08 PM	WATER	ALS: 2 Non ALS: 0	No		X							
019	0089_MW226_250916		16/09/2025 12:30 PM	WATER	ALS: 2 Non ALS: 0	No		X							
020	0089_MW228_250016		16/09/2025 11:22 AM	WATER	ALS: 2 Non ALS: 0	No		X							
021	0089_MW282_250917		17/09/2025 10:43 AM	WATER	ALS: 2 Non ALS: 0	No			X						

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_MW268_250917		17/09/2025 10:46 AM	WATER	ALS: 2 Non ALS: 0	No		X							
023	0089_MW269_250917		17/09/2025 10:41 AM	WATER	ALS: 2 Non ALS: 0	No		X							
024	0089_MW233_250916		16/09/2025 04:12 PM	WATER	ALS: 2 Non ALS: 0	No		X							
025	0089_MW236_250917		17/09/2025 10:48 AM	WATER	ALS: 4 Non ALS: 0	No		X							1 set lab dup
026	0089_MW238_250917		17/09/2025 10:50 AM	WATER	ALS: 2 Non ALS: 0	No		X							
027	0089_MW239_250917		17/09/2025 10:53 AM	WATER	ALS: 2 Non ALS: 0	No		X							
028	0089_MW240_250917		17/09/2025 10:40 AM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

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Other comments:

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_MW242_250917		17/09/2025 10:49 AM	WATER	ALS: 4 Non ALS: 0	No		X							1 set lab dup
030	0089_MW243_250917		17/09/2025 10:47 AM	WATER	ALS: 2 Non ALS: 0	No		X							
031	0089_MW245_250917		17/09/2025 08:40 AM	WATER	ALS: 2 Non ALS: 0	No		X							
032	0089_MW496_250916		16/09/2025 03:10 PM	WATER	ALS: 4 Non ALS: 0	No		X							1set of lab qa qc
033	0089_MW516_250916		16/09/2025 03:13 PM	WATER	ALS: 2 Non ALS: 0	No		X							
034	0089_MW255_250915		15/09/2025 09:49 PM	WATER	ALS: 2 Non ALS: 0	No		X							
035	0089_MW256_250915		15/09/2025 09:52 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

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Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	0089_MW257_250915		15/09/2025 09:50 PM	WATER	ALS: 4 Non ALS: 0	No		X							
037	0089_MW258_250915		15/09/2025 10:03 PM	WATER	ALS: 2 Non ALS: 0	No		X							
038	0089_MW259_250915		15/09/2025 10:02 PM	WATER	ALS: 2 Non ALS: 0	No		X							
039	0089_MW553_250917		17/09/2025 10:54 AM	WATER	ALS: 2 Non ALS: 0	No		X							
040	0089_MW010_250917		17/09/2025 08:48 AM	WATER	ALS: 2 Non ALS: 0	No		X							
041	0089_SD335_250909		09/09/2025 03:17 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
042	0089_SD340_250909		09/09/2025 03:20 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0089_SD341_250909		09/09/2025 03:18 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
044	0089_SD362_250909		09/09/2025 03:21 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
045	0089_SD363_250909		09/09/2025 03:19 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
046	0089_SD364_250909		09/09/2025 03:23 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
047	0089_SD304_250912		12/09/2025 03:26 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
048	0089_SD345_250912		12/09/2025 03:31 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
049	0089_SD367_250912		12/09/2025 03:21 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0089_SD368_250912		17/09/2025 03:27 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
051	0089_SD369_250912		12/09/2025 03:36 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
052	0089_SD350_250911		11/09/2025 08:11 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
053	0089_SD351_250911		11/09/2025 08:12 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
054	0089_SD352_250911		11/09/2025 08:04 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
055	0089_SD380_250911		11/09/2025 08:18 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
056	0089_SD381_250911		11/09/2025 08:06 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
057	0089_SD401_250911		11/09/2025 08:19 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
058	0089_SD346_250912		12/09/2025 03:30 PM	SOIL	ALS: 1 Non ALS: 0	No		X			X				
059	0089_SD306_250910		10/09/2025 08:15 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
060	0089_SD307_250910		10/09/2025 08:25 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
061	0089_SD308_250910		10/09/2025 08:07 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
062	0089_SD314_250910		10/09/2025 08:24 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
063	0089_SD315_250910		10/09/2025 08:09 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

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Free ice / frozen ice bricks present upon receipt? Yes No N/A

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0089_SD316_250910		10/09/2025 08:13 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
065	0089_SD405_250916		16/09/2025 11:25 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
066	0089_SD407_250916		16/09/2025 11:23 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
067	0089_SD409_250916		16/09/2025 12:26 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
068	0089_SD411_250910		10/09/2025 08:14 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
069	0089_SD413_250910		10/09/2025 08:17 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
070	0089_SD415_250910		10/09/2025 08:22 PM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

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SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
071	0089_SD374_250916		16/09/2025 02:33 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
072	0089_SD375_250916		16/09/2025 02:33 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
073	0089_SW130_250909		09/09/2025 02:48 PM	WATER	ALS: 2 Non ALS: 0	No						X			
074	0089_SW132_250909		09/09/2025 04:11 PM	WATER	ALS: 2 Non ALS: 0	No						X			
075	0089_SW134_250909		09/09/2025 04:10 PM	WATER	ALS: 2 Non ALS: 0	No						X			
076	0089_SW305_250912		12/09/2025 04:05 PM	WATER	ALS: 2 Non ALS: 0	No		X							
077	0089_SW370_250912		12/09/2025 03:53 PM	WATER	ALS: 2 Non ALS: 0	No						X			

CHAIN OF CUSTODY

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
078	0089_SW371_250912		12/09/2025 03:39 PM	WATER	ALS: 2 Non ALS: 0	No						X			
079	0089_SW372_250912		12/09/2025 03:37 PM	WATER	ALS: 2 Non ALS: 0	No						X			
080	0089_SW373_250912		12/09/2025 04:02 PM	WATER	ALS: 4 Non ALS: 0	No						X			
081	0089_SW353_250911		11/09/2025 08:27 PM	WATER	ALS: 6 Non ALS: 0	No		X							
082	0089_SW382_250911		11/09/2025 03:42 PM	WATER	ALS: 2 Non ALS: 0	No						X			
083	0089_SW383_250911		11/09/2025 08:29 PM	WATER	ALS: 2 Non ALS: 0	No		X							
084	0089_SW384_250911		11/09/2025 08:28 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

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085	0089_SW309_250910		10/09/2025 08:56 PM	WATER	ALS: 2 Non ALS: 0	No		X							
086	0089_SW310_250910		10/09/2025 08:35 PM	WATER	ALS: 2 Non ALS: 0	No		X							
087	0089_SW311_250910		10/09/2025 08:57 PM	WATER	ALS: 2 Non ALS: 0	No		X							
088	0089_SW406_250016		16/09/2025 11:19 AM	WATER	ALS: 2 Non ALS: 0	No						X			
089	0089_SW408_250916		16/09/2025 11:17 AM	WATER	ALS: 2 Non ALS: 0	No						X			
090	0089_SW410_250916		16/09/2025 12:29 PM	WATER	ALS: 2 Non ALS: 0	No						X			
091	0089_SW412_250910		10/09/2025 09:00 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

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ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

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EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
092	0089_SW414_250910		10/09/2025 03:12 PM	WATER	ALS: 2 Non ALS: 0	No						X			
093	0089_SW416_250910		10/09/2025 08:42 PM	WATER	ALS: 4 Non ALS: 0	No		X							
094	0089_SW317_250916		16/09/2025 02:37 PM	WATER	ALS: 2 Non ALS: 0	No						X			
095	0089_SW318_250916		16/09/2025 02:38 PM	WATER	ALS: 2 Non ALS: 0	No						X			
096	0089_SW319_250916		16/09/2025 02:36 PM	WATER	ALS: 2 Non ALS: 0	No						X			
097	0089_PW304_250912		12/09/2025 03:58 PM	WATER	ALS: 4 Non ALS: 0	No						X			
098	0089_PW345_250912		12/09/2025 03:03 PM	WATER	ALS: 2 Non ALS: 0	No						X			

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
099	0089_PW367_250912		12/09/2025 03:15 PM	WATER	ALS: 2 Non ALS: 0	No						X			
100	0089_PW368_250912		12/09/2025 03:16 PM	WATER	ALS: 2 Non ALS: 0	No						X			
101	0089_PW369_250912		12/09/2025 03:07 PM	WATER	ALS: 2 Non ALS: 0	No		X							
102	0089_PW350_250911		11/09/2025 08:40 PM	WATER	ALS: 2 Non ALS: 0	No		X							
103	0089_PW351_250911		11/09/2025 08:44 PM	WATER	ALS: 2 Non ALS: 0	No		X							
104	0089_PW352_250911		11/09/2025 02:58 PM	WATER	ALS: 2 Non ALS: 0	No		X							
105	0089_PW380_250911		11/09/2025 08:54 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
106	0089_PW381_250911		11/09/2025 03:56 PM	WATER	ALS: 2 Non ALS: 0	No						X			
107	0089_PW346_250912		12/09/2025 04:09 PM	WATER	ALS: 2 Non ALS: 0	No						X			
108	0089_PW306_250910		10/09/2025 08:38 PM	WATER	ALS: 2 Non ALS: 0	No		X							
109	0089_PW307_250910		10/09/2025 02:50 PM	WATER	ALS: 2 Non ALS: 0	No						X			
110	0089_PW308_250910		10/09/2025 03:10 PM	WATER	ALS: 2 Non ALS: 0	No						X			
111	0089_PW314_250910		10/09/2025 03:05 PM	WATER	ALS: 2 Non ALS: 0	No						X			
112	0089_PW315_250910		10/09/2025 08:37 PM	WATER	ALS: 4 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
113	0089_PW316_250910		10/09/2025 03:48 PM	WATER	ALS: 2 Non ALS: 0	No		X							
114	0089_PW405_250916		16/09/2025 11:21 AM	WATER	ALS: 2 Non ALS: 0	No						X			
115	0089_PW407_250916		16/09/2025 11:20 AM	WATER	ALS: 2 Non ALS: 0	No						X			
116	0089_PW409_250916		16/09/2025 12:27 PM	WATER	ALS: 2 Non ALS: 0	No						X			
117	0089_PW411_250910		10/09/2025 08:46 PM	WATER	ALS: 2 Non ALS: 0	No		X							
118	0089_PW413_250910		10/09/2025 03:01 PM	WATER	ALS: 2 Non ALS: 0	No						X			
119	0089_PW415_250910		10/09/2025 03:13 PM	WATER	ALS: 2 Non ALS: 0	No						X			

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
120	0089_PW374_250916		16/09/2025 02:41 PM	WATER	ALS: 2 Non ALS: 0	No						X			
121	0089_PW375_250916		16/09/2025 02:40 PM	WATER	ALS: 2 Non ALS: 0	No						X			
122	0089_PW378_250916		16/09/2025 02:39 PM	WATER	ALS: 2 Non ALS: 0	No						X			
123	0089_PW364_240909		09/09/2025 03:46 PM	WATER	ALS: 2 Non ALS: 0	No							X		
124	0089_QC103_250910		10/09/2025 08:21 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
125	0089_QC303_250911		11/09/2025 08:32 PM	WATER	ALS: 2 Non ALS: 0	No		X							
126	0089_QC104_250910		10/09/2025 08:49 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
127	0089_PW401_250911		11/09/2025 07:44 AM	WATER	ALS: 2 Non ALS: 0	No						X			
128	0089_PW363_250909		09/09/2025 07:46 AM	WATER	ALS: 2 Non ALS: 0	No						X			
129	0089_PW335_250909		09/09/2025 07:51 AM	WATER	ALS: 2 Non ALS: 0	No						X			
130	0089_PW340_250909		09/09/2025 08:06 AM	WATER	ALS: 2 Non ALS: 0	No						X			
131	0089_PW341_250909		09/09/2025 08:09 AM	WATER	ALS: 2 Non ALS: 0	No						X			
132	0089_PW362_250909		09/09/2025 08:17 AM	WATER	ALS: 2 Non ALS: 0	No						X			
133	0089_QC101_250909		09/09/2025 08:23 AM	SOIL	ALS: 1 Non ALS: 0	No					X				

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
134	0089_QC101_250909-1		09/09/2025 08:25 AM	WATER	ALS: 0 Non ALS: 0	No						X			
135	0089_QC301_250909		09/09/2025 08:28 AM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					
136	0089_QC302_250910		10/09/2025 08:31 AM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					
137	0089_QC401_250909		09/09/2025 08:33 AM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
138	0089_QC402_250910		10/09/2025 08:35 AM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
139	0089_QC403_250911		11/09/2025 08:37 AM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
140	0089_QC106_250912		12/09/2025 11:15 AM	WATER	ALS: 2 Non ALS: 0	No						X			

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
141	0089_QC105_250912		12/09/2025 11:17 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
142	0089_QC108_250912		12/09/2025 01:50 PM	WATER	ALS: 2 Non ALS: 0	No						X			
143	0089_QC107_250912		12/09/2025 01:51 PM	WATER	ALS: 2 Non ALS: 0	No						X			
144	0089_QC304_250912		12/09/2025 01:53 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					
145	0089_QC404_2500912		12/09/2025 01:55 PM	WATER	ALS: 2 Non ALS: 0	No						X			
146	0089_QC111_250916		16/09/2025 11:27 AM	SOIL	ALS: 1 Non ALS: 0	No					X				
147	0089_QC112_250916		16/09/2025 11:29 AM	WATER	ALS: 2 Non ALS: 0	No						X			

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

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PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
148	0089_SD378_250916		16/09/2025 02:35 PM	SOIL	ALS: 1 Non ALS: 0	No					X				
149	0089_QC406_250916		16/09/2025 02:43 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
150	0089_QC306_250916		16/09/2025 02:44 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					
151	0089_QC305_250915		15/09/2025 09:55 PM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					
152	0089_QC109_250915		16/09/2025 10:07 PM	WATER	ALS: 2 Non ALS: 0	No		X							
153	0089_QC405_250915		15/09/2025 10:14 PM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
154	0089_QC110_250915		15/09/2025 10:16 PM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
155	0088_QC102_250909		09/09/2025 02:53 PM	WATER	ALS: 2 Non ALS: 0	No		X							
156	0089_QC113_250917		17/09/2025 08:52 AM	WATER	ALS: 2 Non ALS: 0	No		X							
157	0089_QC307_250917		17/09/2025 08:53 AM	WATER	ALS: 2 Non ALS: 0	No				Partial 1/3					
158	0089_QC407_250917		17/09/2025 08:55 AM	WATER	ALS: 2 Non ALS: 0	No	Partial 1/3								
159	0089_QC308_250918		18/09/2025 10:10 AM	SOIL	ALS: 2 Non ALS: 0	No				Partial 1/3					
160	0089_QC408_250918		18/09/2025 10:28 AM	SOIL	ALS: 2 Non ALS: 0	No	Partial 1/3								
161	0089_QC114_250918		18/09/2025 10:34 AM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

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Other comments:

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SAMPLE DETAILS							ANALYSIS REQUIRED								
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Groundwater - PFAS-LL WATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	Surface/Pore Water - PFAS-LL WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
162	0089_MW079_250918		18/09/2025 10:37 AM	WATER	ALS: 2 Non ALS: 0	No		X							

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

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Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE	SAMPLE NAME	PARTIAL ANALYSIS GROUP NAME	MATRIX	SELECTED ANALYSIS NAME
135	0089_QC301_250909	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
136	0089_QC302_250910	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
137	0089_QC401_250909	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
138	0089_QC402_250910	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
139	0089_QC403_250911	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
144	0089_QC304_250912	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
149	0089_QC406_250916	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
150	0089_QC306_250916	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
151	0089_QC305_250915	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
153	0089_QC405_250915	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
157	0089_QC307_250917	Rinsate (PFAS) RINSATE	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
158	0089_QC407_250917	Field Blank (PFAS) - Water WATER	WATER	- EP231X (EP) PFAS - Full Suite (30 analytes)
159	0089_QC308_250918	Rinsate (PFAS) RINSATE	SOIL	- EP231X (EP) PFAS - Full Suite (30 analytes)
160	0089_QC408_250918	Field Blank (PFAS) - Water WATER	SOIL	- EP231X (EP) PFAS - Full Suite (30 analytes)

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW125_250909	HDPE (no PTFE)	20 mL	00352407186650	Grey	No	
001	0089_MW125_250909	HDPE (no PTFE)	20 mL	00352407186509	Grey	No	
002	0089_MW126_250909	HDPE (no PTFE)	20 mL	00352407186643	Grey	No	
002	0089_MW126_250909	HDPE (no PTFE)	20 mL	00352407186597	Grey	No	
003	0089_MW127_250909	HDPE (no PTFE)	20 mL	00352407186318	Grey	No	
003	0089_MW127_250909	HDPE (no PTFE)	20 mL	00352407186254	Grey	No	
005	0089_MW173_250918	HDPE (no PTFE)	20 mL	00350822060052	Grey	No	
005	0089_MW173_250918	HDPE (no PTFE)	20 mL	00352407186393	Grey	No	
006	0089_MW196_250918	HDPE (no PTFE)	20 mL	00352407186358	Grey	No	
006	0089_MW196_250918	HDPE (no PTFE)	20 mL	00352407186208	Grey	No	
007	0089_MW199_250918	HDPE (no PTFE)	20 mL	00352407186435	Grey	No	
007	0089_MW199_250918	HDPE (no PTFE)	20 mL	00350822060107	Grey	No	
008	0089_MW203_250916	HDPE (no PTFE)	20 mL	00352407186398	Grey	No	
008	0089_MW203_250916	HDPE (no PTFE)	20 mL	00352407186246	Grey	No	
009	0089_MW195D_250918	HDPE (no PTFE)	20 mL	00352407186408	Grey	No	
009	0089_MW195D_250918	HDPE (no PTFE)	20 mL	00352407186290	Grey	No	
009	0089_MW195D_250918	HDPE (no PTFE)	20 mL	00352407186416	Grey	No	
009	0089_MW195D_250918	HDPE (no PTFE)	20 mL	00350822060273	Grey	No	
010	0089_MW468_250918	HDPE (no PTFE)	20 mL	00352407186331	Grey	No	
010	0089_MW468_250918	HDPE (no PTFE)	20 mL	00352407186361	Grey	No	
011	0089_MW288_250917	HDPE (no PTFE)	20 mL	00352407186399	Grey	No	
011	0089_MW288_250917	HDPE (no PTFE)	20 mL	00352407186305	Grey	No	
012	0089_MW214_250915	HDPE (no PTFE)	20 mL	00350822060060	Grey	No	
012	0089_MW214_250915	HDPE (no PTFE)	20 mL	00350822060179	Grey	No	
013	0089_MW215_250915	HDPE (no PTFE)	20 mL	00352407186649	Grey	No	
013	0089_MW215_250915	HDPE (no PTFE)	20 mL	00352407186624	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

014	0089_MW216_250915	HDPE (no PTFE)	20 mL	00350822060235	Grey	No	
014	0089_MW216_250915	HDPE (no PTFE)	20 mL	00350822083346	Grey	No	
014	0089_MW216_250915	HDPE (no PTFE)	20 mL	00352407186296	Grey	No	
014	0089_MW216_250915	HDPE (no PTFE)	20 mL	00352407186539	Grey	No	
015	0089_MW217_250915	HDPE (no PTFE)	20 mL	00350822060311	Grey	No	
015	0089_MW217_250915	HDPE (no PTFE)	20 mL	00350822060027	Grey	No	
016	0089_MW220_250915	HDPE (no PTFE)	20 mL	00352407186440	Grey	No	
016	0089_MW220_250915	HDPE (no PTFE)	20 mL	00352407186395	Grey	No	
017	0089_MW224_250915	HDPE (no PTFE)	20 mL	00350822060204	Grey	No	
017	0089_MW224_250915	HDPE (no PTFE)	20 mL	00350822060192	Grey	No	
018	0089_MW225_250915	HDPE (no PTFE)	20 mL	00352407186716	Grey	No	
018	0089_MW225_250915	HDPE (no PTFE)	20 mL	00352407186772	Grey	No	
019	0089_MW226_250916	HDPE (no PTFE)	20 mL	00352407186415	Grey	No	
019	0089_MW226_250916	HDPE (no PTFE)	20 mL	00352407186354	Grey	No	
020	0089_MW228_250016	HDPE (no PTFE)	20 mL	00352407186685	Grey	No	
020	0089_MW228_250016	HDPE (no PTFE)	20 mL	00352407186721	Grey	No	
021	0089_MW282_250917	HDPE (no PTFE)	20 mL	00350822060245	Grey	No	
021	0089_MW282_250917	HDPE (no PTFE)	20 mL	00352407186734	Grey	No	
022	0089_MW268_250917	HDPE (no PTFE)	20 mL	00352407186234	Grey	No	
022	0089_MW268_250917	HDPE (no PTFE)	20 mL	00352407186445	Grey	No	
023	0089_MW269_250917	HDPE (no PTFE)	20 mL	00352407186562	Grey	No	
023	0089_MW269_250917	HDPE (no PTFE)	20 mL	00352407186431	Grey	No	
024	0089_MW233_250916	HDPE (no PTFE)	20 mL	00352407186733	Grey	No	
024	0089_MW233_250916	HDPE (no PTFE)	20 mL	00352407186315	Grey	No	
025	0089_MW236_250917	HDPE (no PTFE)	20 mL	00350822083947	Grey	No	
025	0089_MW236_250917	HDPE (no PTFE)	20 mL	00350822083892	Grey	No	
025	0089_MW236_250917	HDPE (no PTFE)	20 mL	00352407186355	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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025	0089_MW236_250917	HDPE (no PTFE)	20 mL	00352407186213	Grey	No	
026	0089_MW238_250917	HDPE (no PTFE)	20 mL	00350822060165	Grey	No	
026	0089_MW238_250917	HDPE (no PTFE)	20 mL	00352407186534	Grey	No	
027	0089_MW239_250917	HDPE (no PTFE)	20 mL	00350822060116	Grey	No	
027	0089_MW239_250917	HDPE (no PTFE)	20 mL	00352407186752	Grey	No	
028	0089_MW240_250917	HDPE (no PTFE)	20 mL	00352407186389	Grey	No	
028	0089_MW240_250917	HDPE (no PTFE)	20 mL	00352407186233	Grey	No	
029	0089_MW242_250917	HDPE (no PTFE)	20 mL	00352407186420	Grey	No	
029	0089_MW242_250917	HDPE (no PTFE)	20 mL	00352407186664	Grey	No	
029	0089_MW242_250917	HDPE (no PTFE)	20 mL	00350822083874	Grey	No	
029	0089_MW242_250917	HDPE (no PTFE)	20 mL	00350822060270	Grey	No	
030	0089_MW243_250917	HDPE (no PTFE)	20 mL	00350822060367	Grey	No	
030	0089_MW243_250917	HDPE (no PTFE)	20 mL	00350822083975	Grey	No	
031	0089_MW245_250917	HDPE (no PTFE)	20 mL	00352407186353	Grey	No	
031	0089_MW245_250917	HDPE (no PTFE)	20 mL	00352407186200	Grey	No	
032	0089_MW496_250916	HDPE (no PTFE)	20 mL	00352407186244	Grey	No	
032	0089_MW496_250916	HDPE (no PTFE)	20 mL	00352407186707	Grey	No	
032	0089_MW496_250916	HDPE (no PTFE)	20 mL	00352407186192	Grey	No	
032	0089_MW496_250916	HDPE (no PTFE)	20 mL	00352407186228	Grey	No	
033	0089_MW516_250916	HDPE (no PTFE)	20 mL	00352407186386	Grey	No	
033	0089_MW516_250916	HDPE (no PTFE)	20 mL	00352407186210	Grey	No	
034	0089_MW255_250915	HDPE (no PTFE)	20 mL	00352407186768	Grey	No	
034	0089_MW255_250915	HDPE (no PTFE)	20 mL	00352407186214	Grey	No	
035	0089_MW256_250915	HDPE (no PTFE)	20 mL	00352407186338	Grey	No	
035	0089_MW256_250915	HDPE (no PTFE)	20 mL	00352407186357	Grey	No	
036	0089_MW257_250915	HDPE (no PTFE)	20 mL	00350822060210	Grey	No	
036	0089_MW257_250915	HDPE (no PTFE)	20 mL	00350822060131	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

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Other comments:

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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036	0089_MW257_250915	HDPE (no PTFE)	20 mL	00352407186194	Grey	No	
036	0089_MW257_250915	HDPE (no PTFE)	20 mL	00352407186459	Grey	No	
037	0089_MW258_250915	HDPE (no PTFE)	20 mL	00350822060317	Grey	No	
037	0089_MW258_250915	HDPE (no PTFE)	20 mL	00350822083876	Grey	No	
038	0089_MW259_250915	HDPE (no PTFE)	20 mL	00352407186350	Grey	No	
038	0089_MW259_250915	HDPE (no PTFE)	20 mL	00352407186335	Grey	No	
039	0089_MW553_250917	HDPE (no PTFE)	20 mL	00350822060103	Grey	No	
039	0089_MW553_250917	HDPE (no PTFE)	20 mL	00350822083970	Grey	No	
040	0089_MW010_250917	HDPE (no PTFE)	20 mL	00352407186259	Grey	No	
040	0089_MW010_250917	HDPE (no PTFE)	20 mL	00352407186359	Grey	No	
041	0089_SD335_250909	HDPE Soil Jar	200 mL	00620724057870	Grey	No	
042	0089_SD340_250909	HDPE Soil Jar	200 mL	00620724057784	Grey	No	
043	0089_SD341_250909	HDPE Soil Jar	200 mL	00620724057917	Grey	No	
044	0089_SD362_250909	HDPE Soil Jar	200 mL	00620724057868	Grey	No	
045	0089_SD363_250909	HDPE Soil Jar	200 mL	00620724057892	Grey	No	
046	0089_SD364_250909	HDPE Soil Jar	200 mL	00620724057805	Grey	No	
047	0089_SD304_250912	HDPE Soil Jar	200 mL	00620724057795	Grey	No	
048	0089_SD345_250912	HDPE Soil Jar	200 mL	00620724057815	Grey	No	
049	0089_SD367_250912	HDPE Soil Jar	200 mL	00620724057875	Grey	No	
050	0089_SD368_250912	HDPE Soil Jar	200 mL	00620724057773	Grey	No	
051	0089_SD369_250912	HDPE Soil Jar	200 mL	00620724057772	Grey	No	
052	0089_SD350_250911	HDPE Soil Jar	200 mL	00620724057797	Grey	No	
053	0089_SD351_250911	HDPE Soil Jar	200 mL	00620724057809	Grey	No	
054	0089_SD352_250911	HDPE Soil Jar	200 mL	00620724057915	Grey	No	
055	0089_SD380_250911	HDPE Soil Jar	200 mL	00620724057900	Grey	No	
056	0089_SD381_250911	HDPE Soil Jar	200 mL	00620724057895	Grey	No	
057	0089_SD401_250911	HDPE Soil Jar	200 mL	00620724057867	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

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058	0089_SD346_250912	HDPE Soil Jar	200 mL	00620724057794	Grey	No	
059	0089_SD306_250910	HDPE Soil Jar	200 mL	00620724057893	Grey	No	
060	0089_SD307_250910	HDPE Soil Jar	200 mL	00620724057839	Grey	No	
061	0089_SD308_250910	HDPE Soil Jar	200 mL	00620724057842	Grey	No	
062	0089_SD314_250910	HDPE Soil Jar	200 mL	00620724057857	Grey	No	
063	0089_SD315_250910	HDPE Soil Jar	200 mL	00620724057905	Grey	No	
064	0089_SD316_250910	HDPE Soil Jar	200 mL	00620724057821	Grey	No	
065	0089_SD405_250916	HDPE Soil Jar	200 mL	00620724057779	Grey	No	
066	0089_SD407_250916	HDPE Soil Jar	200 mL	00620724057919	Grey	No	
067	0089_SD409_250916	HDPE Soil Jar	200 mL	00620724057817	Grey	No	
068	0089_SD411_250910	HDPE Soil Jar	200 mL	00620724057882	Grey	No	
069	0089_SD413_250910	HDPE Soil Jar	200 mL	00620724057780	Grey	No	
070	0089_SD415_250910	HDPE Soil Jar	200 mL	00620724057854	Grey	No	
071	0089_SD374_250916	HDPE Soil Jar	200 mL	00620724057791	Grey	No	
072	0089_SD375_250916	HDPE Soil Jar	200 mL	00620724057881	Grey	No	
073	0089_SW130_250909	HDPE (no PTFE)	20 mL	00352407186443	Grey	No	
073	0089_SW130_250909	HDPE (no PTFE)	20 mL	00352407186251	Grey	No	
074	0089_SW132_250909	HDPE (no PTFE)	20 mL	00352407186676	Grey	No	
074	0089_SW132_250909	HDPE (no PTFE)	20 mL	00352407186437	Grey	No	
075	0089_SW134_250909	HDPE (no PTFE)	20 mL	00352407186654	Grey	No	
075	0089_SW134_250909	HDPE (no PTFE)	20 mL	00352407186429	Grey	No	
076	0089_SW305_250912	HDPE (no PTFE)	20 mL	00350822060396	Grey	No	
076	0089_SW305_250912	HDPE (no PTFE)	20 mL	00350822060200	Grey	No	
077	0089_SW370_250912	HDPE (no PTFE)	20 mL	00350822060152	Grey	No	
077	0089_SW370_250912	HDPE (no PTFE)	20 mL	00350822060266	Grey	No	
078	0089_SW371_250912	HDPE (no PTFE)	20 mL	00352407186378	Grey	No	
078	0089_SW371_250912	HDPE (no PTFE)	20 mL	00352407186317	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

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079	0089_SW372_250912	HDPE (no PTFE)	20 mL	00352407186235	Grey	No	
079	0089_SW372_250912	HDPE (no PTFE)	20 mL	00352407186329	Grey	No	
080	0089_SW373_250912	HDPE (no PTFE)	20 mL	00352407186342	Grey	No	
080	0089_SW373_250912	HDPE (no PTFE)	20 mL	00352407186241	Grey	No	
080	0089_SW373_250912	HDPE (no PTFE)	20 mL	00352407186314	Grey	No	
080	0089_SW373_250912	HDPE (no PTFE)	20 mL	00352407186365	Grey	No	
081	0089_SW353_250911	HDPE (no PTFE)	20 mL	00352407186238	Grey	No	
081	0089_SW353_250911	HDPE (no PTFE)	20 mL	00352407186381	Grey	No	
081	0089_SW353_250911	HDPE (no PTFE)	20 mL	00352407186313	Grey	No	
081	0089_SW353_250911	HDPE (no PTFE)	20 mL	00352407186278	Grey	No	
081	0089_SW353_250911	HDPE (no PTFE)	20 mL	00352407186205	Grey	No	
081	0089_SW353_250911	HDPE (no PTFE)	20 mL	00352407186432	Grey	No	
082	0089_SW382_250911	HDPE (no PTFE)	20 mL	00352407186642	Grey	No	
082	0089_SW382_250911	HDPE (no PTFE)	20 mL	00352407186277	Grey	No	
083	0089_SW383_250911	HDPE (no PTFE)	20 mL	00352407186675	Grey	No	
083	0089_SW383_250911	HDPE (no PTFE)	20 mL	00352407186326	Grey	No	
084	0089_SW384_250911	HDPE (no PTFE)	20 mL	00352407186304	Grey	No	
084	0089_SW384_250911	HDPE (no PTFE)	20 mL	00352407186513	Grey	No	
085	0089_SW309_250910	HDPE (no PTFE)	20 mL	00352407186197	Grey	No	
085	0089_SW309_250910	HDPE (no PTFE)	20 mL	00352407186267	Grey	No	
086	0089_SW310_250910	HDPE (no PTFE)	20 mL	00352407186778	Grey	No	
086	0089_SW310_250910	HDPE (no PTFE)	20 mL	00352407186756	Grey	No	
087	0089_SW311_250910	HDPE (no PTFE)	20 mL	00352407186411	Grey	No	
087	0089_SW311_250910	HDPE (no PTFE)	20 mL	00352407186709	Grey	No	
088	0089_SW406_250016	HDPE (no PTFE)	20 mL	00352407186374	Grey	No	
088	0089_SW406_250016	HDPE (no PTFE)	20 mL	00352407186684	Grey	No	
089	0089_SW408_250916	HDPE (no PTFE)	20 mL	00352407186215	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted]ghd.com, [redacted]ghd.com, ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

089	0089_SW408_250916	HDPE (no PTFE)	20 mL	00352407186759	Grey	No	
090	0089_SW410_250916	HDPE (no PTFE)	20 mL	00352407186755	Grey	No	
090	0089_SW410_250916	HDPE (no PTFE)	20 mL	00352407186390	Grey	No	
091	0089_SW412_250910	HDPE (no PTFE)	20 mL	00352407186452	Grey	No	
091	0089_SW412_250910	HDPE (no PTFE)	20 mL	00352407186628	Grey	No	
092	0089_SW414_250910	HDPE (no PTFE)	20 mL	00352407186237	Grey	No	
092	0089_SW414_250910	HDPE (no PTFE)	20 mL	00352407186596	Grey	No	
093	0089_SW416_250910	HDPE (no PTFE)	20 mL	00352407186336	Grey	No	
093	0089_SW416_250910	HDPE (no PTFE)	20 mL	00352407186783	Grey	No	
093	0089_SW416_250910	HDPE (no PTFE)	20 mL	00352407186715	Grey	No	
093	0089_SW416_250910	HDPE (no PTFE)	20 mL	00352407186549	Grey	No	
094	0089_SW317_250916	HDPE (no PTFE)	20 mL	00352407186271	Grey	No	
094	0089_SW317_250916	HDPE (no PTFE)	20 mL	00352407186328	Grey	No	
095	0089_SW318_250916	HDPE (no PTFE)	20 mL	00352407186566	Grey	No	
095	0089_SW318_250916	HDPE (no PTFE)	20 mL	00352407186265	Grey	No	
096	0089_SW319_250916	HDPE (no PTFE)	20 mL	00352407186269	Grey	No	
096	0089_SW319_250916	HDPE (no PTFE)	20 mL	00352407186247	Grey	No	
097	0089_PW304_250912	HDPE (no PTFE)	20 mL	00352407186397	Grey	No	
097	0089_PW304_250912	HDPE (no PTFE)	20 mL	00352407186504	Grey	No	
097	0089_PW304_250912	HDPE (no PTFE)	20 mL	00352407186323	Grey	No	
097	0089_PW304_250912	HDPE (no PTFE)	20 mL	00352407186222	Grey	No	
098	0089_PW345_250912	HDPE (no PTFE)	20 mL	00350822060141	Grey	No	
098	0089_PW345_250912	HDPE (no PTFE)	20 mL	00350822060048	Grey	No	
099	0089_PW367_250912	HDPE (no PTFE)	20 mL	00350822060408	Grey	No	
099	0089_PW367_250912	HDPE (no PTFE)	20 mL	00350822083900	Grey	No	
100	0089_PW368_250912	HDPE (no PTFE)	20 mL	00350822060150	Grey	No	
100	0089_PW368_250912	HDPE (no PTFE)	20 mL	00350822060361	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

101	0089_PW369_250912	HDPE (no PTFE)	20 mL	00352407186324	Grey	No	
101	0089_PW369_250912	HDPE (no PTFE)	20 mL	00352407186262	Grey	No	
102	0089_PW350_250911	HDPE (no PTFE)	20 mL	00352407186373	Grey	No	
102	0089_PW350_250911	HDPE (no PTFE)	20 mL	00352407186580	Grey	No	
103	0089_PW351_250911	HDPE (no PTFE)	20 mL	00352407186362	Grey	No	
103	0089_PW351_250911	HDPE (no PTFE)	20 mL	00352407186260	Grey	No	
104	0089_PW352_250911	HDPE (no PTFE)	20 mL	00352407186257	Grey	No	
104	0089_PW352_250911	HDPE (no PTFE)	20 mL	00352407186646	Grey	No	
105	0089_PW380_250911	HDPE (no PTFE)	20 mL	00352407186618	Grey	No	
105	0089_PW380_250911	HDPE (no PTFE)	20 mL	00352407186293	Grey	No	
106	0089_PW381_250911	HDPE (no PTFE)	20 mL	00352407186376	Grey	No	
106	0089_PW381_250911	HDPE (no PTFE)	20 mL	00352407186231	Grey	No	
107	0089_PW346_250912	HDPE (no PTFE)	20 mL	00352407186678	Grey	No	
107	0089_PW346_250912	HDPE (no PTFE)	20 mL	00352407186575	Grey	No	
108	0089_PW306_250910	HDPE (no PTFE)	20 mL	00352407186600	Grey	No	
108	0089_PW306_250910	HDPE (no PTFE)	20 mL	00352407186757	Grey	No	
109	0089_PW307_250910	HDPE (no PTFE)	20 mL	00352407186570	Grey	No	
109	0089_PW307_250910	HDPE (no PTFE)	20 mL	00352407186337	Grey	No	
110	0089_PW308_250910	HDPE (no PTFE)	20 mL	00352407186743	Grey	No	
110	0089_PW308_250910	HDPE (no PTFE)	20 mL	00352407186774	Grey	No	
111	0089_PW314_250910	HDPE (no PTFE)	20 mL	00352407186491	Grey	No	
111	0089_PW314_250910	HDPE (no PTFE)	20 mL	00352407186272	Grey	No	
112	0089_PW315_250910	HDPE (no PTFE)	20 mL	00352407186690	Grey	No	
112	0089_PW315_250910	HDPE (no PTFE)	20 mL	00352407186444	Grey	No	
112	0089_PW315_250910	HDPE (no PTFE)	20 mL	00352407186728	Grey	No	
112	0089_PW315_250910	HDPE (no PTFE)	20 mL	00352407186662	Grey	No	
113	0089_PW316_250910	HDPE (no PTFE)	20 mL	00352407186249	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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EMAIL INVOICES TO: accountspayableau@ghd.com

113	0089_PW316_250910	HDPE (no PTFE)	20 mL	00352407186367	Grey	No	
114	0089_PW405_250916	HDPE (no PTFE)	20 mL	00352407186748	Grey	No	
114	0089_PW405_250916	HDPE (no PTFE)	20 mL	00352407186327	Grey	No	
115	0089_PW407_250916	HDPE (no PTFE)	20 mL	00352407186298	Grey	No	
115	0089_PW407_250916	HDPE (no PTFE)	20 mL	00352407186312	Grey	No	
116	0089_PW409_250916	HDPE (no PTFE)	20 mL	00352407186375	Grey	No	
116	0089_PW409_250916	HDPE (no PTFE)	20 mL	00352407186668	Grey	No	
117	0089_PW411_250910	HDPE (no PTFE)	20 mL	00352407186285	Grey	No	
117	0089_PW411_250910	HDPE (no PTFE)	20 mL	00352407186345	Grey	No	
118	0089_PW413_250910	HDPE (no PTFE)	20 mL	00352407186496	Grey	No	
118	0089_PW413_250910	HDPE (no PTFE)	20 mL	00352407186740	Grey	No	
119	0089_PW415_250910	HDPE (no PTFE)	20 mL	00352407186620	Grey	No	
119	0089_PW415_250910	HDPE (no PTFE)	20 mL	00352407186282	Grey	No	
120	0089_PW374_250916	HDPE (no PTFE)	20 mL	00352407186295	Grey	No	
120	0089_PW374_250916	HDPE (no PTFE)	20 mL	00352407186281	Grey	No	
121	0089_PW375_250916	HDPE (no PTFE)	20 mL	00352407186347	Grey	No	
121	0089_PW375_250916	HDPE (no PTFE)	20 mL	00352407186765	Grey	No	
122	0089_PW378_250916	HDPE (no PTFE)	20 mL	00352407186680	Grey	No	
122	0089_PW378_250916	HDPE (no PTFE)	20 mL	00352407186221	Grey	No	
123	0089_PW364_240909	HDPE (no PTFE)	20 mL	00352407186204	Grey	No	
123	0089_PW364_240909	HDPE (no PTFE)	20 mL	00352407186659	Grey	No	
124	0089_QC103_250910	HDPE Soil Jar	200 mL	00620724057825	Grey	No	
125	0089_QC303_250911	HDPE (no PTFE)	20 mL	00352407186310	Grey	No	
125	0089_QC303_250911	HDPE (no PTFE)	20 mL	00352407186705	Grey	No	
126	0089_QC104_250910	HDPE (no PTFE)	20 mL	00352407186686	Grey	No	
126	0089_QC104_250910	HDPE (no PTFE)	20 mL	00352407186548	Grey	No	
127	0089_PW401_250911	HDPE (no PTFE)	20 mL	00352407186364	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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127	0089_PW401_250911	HDPE (no PTFE)	20 mL	00352407186226	Grey	No	
128	0089_PW363_250909	HDPE (no PTFE)	20 mL	00352407186403	Grey	No	
128	0089_PW363_250909	HDPE (no PTFE)	20 mL	00352407186640	Grey	No	
129	0089_PW335_250909	HDPE (no PTFE)	20 mL	00352407186699	Grey	No	
129	0089_PW335_250909	HDPE (no PTFE)	20 mL	00352407186191	Grey	No	
130	0089_PW340_250909	HDPE (no PTFE)	20 mL	00352407186203	Grey	No	
130	0089_PW340_250909	HDPE (no PTFE)	20 mL	00352407186769	Grey	No	
131	0089_PW341_250909	HDPE (no PTFE)	20 mL	00352407186592	Grey	No	
131	0089_PW341_250909	HDPE (no PTFE)	20 mL	00352407186585	Grey	No	
132	0089_PW362_250909	HDPE (no PTFE)	20 mL	00352407186578	Grey	No	
132	0089_PW362_250909	HDPE (no PTFE)	20 mL	00352407186582	Grey	No	
133	0089_QC101_250909	HDPE Soil Jar	200 mL	00620724057861	Grey	No	
135	0089_QC301_250909	HDPE (no PTFE)	20 mL	00352407186770	Grey	No	
135	0089_QC301_250909	HDPE (no PTFE)	20 mL	00352407186660	Grey	No	
136	0089_QC302_250910	HDPE (no PTFE)	20 mL	00352407186229	Grey	No	
136	0089_QC302_250910	HDPE (no PTFE)	20 mL	00352407186349	Grey	No	
137	0089_QC401_250909	HDPE (no PTFE)	20 mL	00352407186391	Grey	No	
137	0089_QC401_250909	HDPE (no PTFE)	20 mL	00352407186711	Grey	No	
138	0089_QC402_250910	HDPE (no PTFE)	20 mL	00352407186651	Grey	No	
138	0089_QC402_250910	HDPE (no PTFE)	20 mL	00352407186309	Grey	No	
139	0089_QC403_250911	HDPE (no PTFE)	20 mL	00352407186258	Grey	No	
139	0089_QC403_250911	HDPE (no PTFE)	20 mL	00352407186300	Grey	No	
140	0089_QC106_250912	HDPE (no PTFE)	20 mL	00350822060389	Grey	No	
140	0089_QC106_250912	HDPE (no PTFE)	20 mL	00350822083951	Grey	No	
141	0089_QC105_250912	HDPE Soil Jar	200 mL	00620724057888	Grey	No	
142	0089_QC108_250912	HDPE (no PTFE)	20 mL	00352407186617	Grey	No	
142	0089_QC108_250912	HDPE (no PTFE)	20 mL	00352407186417	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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143	0089_QC107_250912	HDPE (no PTFE)	20 mL	00352407186458	Grey	No	
143	0089_QC107_250912	HDPE (no PTFE)	20 mL	00352407186406	Grey	No	
144	0089_QC304_250912	HDPE (no PTFE)	20 mL	00350822083873	Grey	No	
144	0089_QC304_250912	HDPE (no PTFE)	20 mL	00350822060057	Grey	No	
145	0089_QC404_2500912	HDPE (no PTFE)	20 mL	00350822060005	Grey	No	
145	0089_QC404_2500912	HDPE (no PTFE)	20 mL	00350822060037	Grey	No	
146	0089_QC111_250916	HDPE Soil Jar	200 mL	00620724057824	Grey	No	
147	0089_QC112_250916	HDPE (no PTFE)	20 mL	00352407186306	Grey	No	
147	0089_QC112_250916	HDPE (no PTFE)	20 mL	00352407186288	Grey	No	
148	0089_SD378_250916	HDPE Soil Jar	200 mL	00620724057855	Grey	No	
149	0089_QC406_250916	HDPE (no PTFE)	20 mL	00352407186789	Grey	No	
149	0089_QC406_250916	HDPE (no PTFE)	20 mL	00352407186749	Grey	No	
150	0089_QC306_250916	HDPE (no PTFE)	20 mL	00352407186729	Grey	No	
150	0089_QC306_250916	HDPE (no PTFE)	20 mL	00352407186553	Grey	No	
151	0089_QC305_250915	HDPE (no PTFE)	20 mL	00352407186333	Grey	No	
151	0089_QC305_250915	HDPE (no PTFE)	20 mL	00352407186270	Grey	No	
152	0089_QC109_250915	HDPE (no PTFE)	20 mL	00350822060180	Grey	No	
152	0089_QC109_250915	HDPE (no PTFE)	20 mL	00350822060272	Grey	No	
153	0089_QC405_250915	HDPE (no PTFE)	20 mL	00352407186602	Grey	No	
153	0089_QC405_250915	HDPE (no PTFE)	20 mL	00352407186470	Grey	No	
154	0089_QC110_250915	HDPE (no PTFE)	20 mL	00350822060128	Grey	No	
154	0089_QC110_250915	HDPE (no PTFE)	20 mL	00350822060161	Grey	No	
155	0088_QC102_250909	HDPE (no PTFE)	20 mL	00352407186724	Grey	No	
155	0088_QC102_250909	HDPE (no PTFE)	20 mL	00352407186598	Grey	No	
156	0089_QC113_250917	HDPE (no PTFE)	20 mL	00352407186605	Grey	No	
156	0089_QC113_250917	HDPE (no PTFE)	20 mL	00350822083821	Grey	No	
157	0089_QC307_250917	HDPE (no PTFE)	20 mL	00350822060352	Grey	No	

CHAIN OF CUSTODY

COC#: **88337** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: WA_0089_PFASOMP_25

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 28 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

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PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

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157	0089_QC307_250917	HDPE (no PTFE)	20 mL	00350822060148	Grey	No	
158	0089_QC407_250917	HDPE (no PTFE)	20 mL	00352407186648	Grey	No	
158	0089_QC407_250917	HDPE (no PTFE)	20 mL	00352407186507	Grey	No	
159	0089_QC308_250918	HDPE (no PTFE)	20 mL	00352407186308	Grey	No	
159	0089_QC308_250918	HDPE (no PTFE)	20 mL	00350822060156	Grey	No	
160	0089_QC408_250918	HDPE (no PTFE)	20 mL	00352407186243	Grey	No	
160	0089_QC408_250918	HDPE (no PTFE)	20 mL	00350822060344	Grey	No	
161	0089_QC114_250918	HDPE (no PTFE)	20 mL	00350822060248	Grey	No	
161	0089_QC114_250918	HDPE (no PTFE)	20 mL	00352407186301	Grey	No	
162	0089_MW079_250918	HDPE (no PTFE)	20 mL	00350822083988	Grey	No	
162	0089_MW079_250918	HDPE (no PTFE)	20 mL	00352407186479	Grey	No	

Total Bottle Count: ALS: 307, Non ALS: 0

CERTIFICATE OF ANALYSIS

Work Order	: **EP2515823**	Page	: 1 of 34
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 26-Sep-2025 16:30
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 06-Oct-2025
C-O-C number	: 88766	Issue Date	: 29-Dec-2025 10:28
Sampler	: [redacted]		
Site	: 0089		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 44		
No. of samples analysed	: 44		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Supervisor	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: LOR has been raised for particular analytes on certain samples due to matrix interference.
- Amendment (24/12/2025): This report has been amended and re-released to allow the reporting of additional analytical data, specifically method EP231X (PFHxDA) for samples EP2515823 _001 to 019 and 026 to 045
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250919	0089_MW112_250919	0089_MW120_250919	0089_MW121_250919	0089_MW123_250919
				Sampling date / time	19-Sep-2025 17:13	24-Sep-2025 16:42	19-Sep-2025 17:03	19-Sep-2025 16:46	19-Sep-2025 16:29
Compound	CAS Number	LOR	Unit		EP2515823-001	EP2515823-002	EP2515823-003	EP2515823-004	EP2515823-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.05**	**0.10**	**0.02**	<0.02	**0.11**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.09**	**0.30**	**0.13**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.33**	**9.73**	**13.0**	**0.05**	**0.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.30**	**13.0**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**33.2**	**0.38**	**0.43**	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	**0.29**	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.49**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.04**	**1.31**	**0.28**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.90**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.65**	**2.32**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250919	0089_MW112_250919	0089_MW120_250919	0089_MW121_250919	0089_MW123_250919
				Sampling date / time	19-Sep-2025 17:13	24-Sep-2025 16:42	19-Sep-2025 17:03	19-Sep-2025 16:46	19-Sep-2025 16:29
Compound	CAS Number	LOR	Unit		EP2515823-001	EP2515823-002	EP2515823-003	EP2515823-004	EP2515823-005
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.50**	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.53**	**48.0**	**29.1**	**0.48**	**0.15**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.35**	**42.9**	**13.4**	**0.48**	**0.04**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.44**	**46.6**	**16.0**	**0.48**	**0.15**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW109_250919	0089_MW112_250919	0089_MW120_250919	0089_MW121_250919	0089_MW123_250919
				Sampling date / time	19-Sep-2025 17:13	24-Sep-2025 16:42	19-Sep-2025 17:03	19-Sep-2025 16:46	19-Sep-2025 16:29
Compound	CAS Number	LOR	Unit		EP2515823-001	EP2515823-002	EP2515823-003	EP2515823-004	EP2515823-005
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**108**	**94.0**	**101**	**112**	**110**
13C8-PFOA	----	0.02	%		**104**	**100**	**105**	**106**	**108**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_250919	0089_MW128_250919	0089_MW161_250923	0089_MW166_250923	0089_MW171_250923
				Sampling date / time	19-Sep-2025 16:37	19-Sep-2025 16:52	23-Sep-2025 08:23	23-Sep-2025 21:15	23-Sep-2025 08:14
Compound	CAS Number	LOR	Unit		EP2515823-006	EP2515823-007	EP2515823-008	EP2515823-009	EP2515823-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.94**
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.04**	**0.04**	**1.14**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.05**	**0.03**	**0.84**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.05**	**0.25**	**0.50**	**5.05**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.12**	**0.97**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.85**	**0.78**	**3.54**	**1.53**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**0.5**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.06**	**0.29**	**0.47**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.02**	**0.12**	**0.24**	**1.61**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.03**	**0.13**	**0.14**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.01**	**0.07**	**0.28**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_250919	0089_MW128_250919	0089_MW161_250923	0089_MW166_250923	0089_MW171_250923
				Sampling date / time	19-Sep-2025 16:37	19-Sep-2025 16:52	23-Sep-2025 08:23	23-Sep-2025 21:15	23-Sep-2025 08:14
Compound	CAS Number	LOR	Unit		EP2515823-006	EP2515823-007	EP2515823-008	EP2515823-009	EP2515823-010
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.01**	**0.92**	**1.34**	**4.98**	**13.5**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	**0.90**	**1.03**	**4.04**	**6.58**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.01**	**0.92**	**1.29**	**4.81**	**10.7**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW124_250919	0089_MW128_250919	0089_MW161_250923	0089_MW166_250923	0089_MW171_250923
				Sampling date / time	19-Sep-2025 16:37	19-Sep-2025 16:52	23-Sep-2025 08:23	23-Sep-2025 21:15	23-Sep-2025 08:14
Compound	CAS Number	LOR	Unit		EP2515823-006	EP2515823-007	EP2515823-008	EP2515823-009	EP2515823-010
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**105**	**106**	**105**	**114**	**107**
13C8-PFOA	----	0.02	%		**106**	**103**	**106**	**106**	**103**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW200_250923	0089_MW202_250919	0089_MW289_250919	0089_MW227_250923	0089_MW139_250923
				Sampling date / time	23-Sep-2025 08:19	19-Sep-2025 16:48	19-Sep-2025 17:21	23-Sep-2025 08:22	23-Sep-2025 07:43
Compound	CAS Number	LOR	Unit		EP2515823-011	EP2515823-012	EP2515823-013	EP2515823-014	EP2515823-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	**0.05**	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.01**	**0.59**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW200_250923	0089_MW202_250919	0089_MW289_250919	0089_MW227_250923	0089_MW139_250923
				Sampling date / time	23-Sep-2025 08:19	19-Sep-2025 16:48	19-Sep-2025 17:21	23-Sep-2025 08:22	23-Sep-2025 07:43
Compound	CAS Number	LOR	Unit		EP2515823-011	EP2515823-012	EP2515823-013	EP2515823-014	EP2515823-015
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.01**	**0.64**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.01**	**0.64**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.01**	**0.64**	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW200_250923	0089_MW202_250919	0089_MW289_250919	0089_MW227_250923	0089_MW139_250923
				Sampling date / time	23-Sep-2025 08:19	19-Sep-2025 16:48	19-Sep-2025 17:21	23-Sep-2025 08:22	23-Sep-2025 07:43
Compound	CAS Number	LOR	Unit		EP2515823-011	EP2515823-012	EP2515823-013	EP2515823-014	EP2515823-015
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**110**	**113**	**102**	**105**	**111**
13C8-PFOA	----	0.02	%		**103**	**105**	**103**	**106**	**100**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)

Compound	CAS Number	LOR	Unit	Sample ID	0089_MW141_250923	0089_MW142_250923	0089_MW147_250923	0089_MW149_250923	0089_QC409_250919
				Sampling date / time	23-Sep-2025 21:18	23-Sep-2025 08:27	23-Sep-2025 21:22	23-Sep-2025 08:15	19-Sep-2025 16:33
					EP2515823-016	EP2515823-017	EP2515823-018	EP2515823-019	EP2515823-030
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		**0.09**	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.32**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.61**	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**10.2**	**0.23**	**0.10**	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.80**	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**38.7**	**0.45**	**0.02**	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		**0.14**	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.05	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.2**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.76**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**6.79**	**0.09**	**0.03**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.22**	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.98**	**0.02**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW141_250923	0089_MW142_250923	0089_MW147_250923	0089_MW149_250923	0089_QC409_250919
				Sampling date / time	23-Sep-2025 21:18	23-Sep-2025 08:27	23-Sep-2025 21:22	23-Sep-2025 08:15	19-Sep-2025 16:33
Compound	CAS Number	LOR	Unit		EP2515823-016	EP2515823-017	EP2515823-018	EP2515823-019	EP2515823-030
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**59.8**	**0.79**	**0.15**	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**48.9**	**0.68**	**0.12**	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**58.2**	**0.79**	**0.15**	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW141_250923	0089_MW142_250923	0089_MW147_250923	0089_MW149_250923	0089_QC409_250919
				Sampling date / time	23-Sep-2025 21:18	23-Sep-2025 08:27	23-Sep-2025 21:22	23-Sep-2025 08:15	19-Sep-2025 16:33
Compound	CAS Number	LOR	Unit		EP2515823-016	EP2515823-017	EP2515823-018	EP2515823-019	EP2515823-030
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**102**	**112**	**103**	**109**	**110**
13C8-PFOA	----	0.02	%		**103**	**106**	**104**	**102**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW500_250919	0089_QC309_250919	0089_QC410_250923	0089_QC117_250923	0089_QC118_250923
				Sampling date / time	19-Sep-2025 17:18	19-Sep-2025 17:22	23-Sep-2025 21:20	23-Sep-2025 07:41	23-Sep-2025 08:07
Compound	CAS Number	LOR	Unit		EP2515823-031	EP2515823-033	EP2515823-035	EP2515823-037	EP2515823-040
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**4.09**	<0.01	<0.01	<0.01	**0.12**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.83**	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**36.3**	<0.01	<0.01	<0.01	**0.02**
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.21**	<0.02	<0.02	<0.02	**0.03**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.05**	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.44**	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW500_250919	0089_QC309_250919	0089_QC410_250923	0089_QC117_250923	0089_QC118_250923
				Sampling date / time	19-Sep-2025 17:18	19-Sep-2025 17:22	23-Sep-2025 21:20	23-Sep-2025 07:41	23-Sep-2025 08:07
Compound	CAS Number	LOR	Unit		EP2515823-031	EP2515823-033	EP2515823-035	EP2515823-037	EP2515823-040
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**42.0**	<0.01	<0.01	<0.01	**0.17**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**40.4**	<0.01	<0.01	<0.01	**0.14**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**41.1**	<0.01	<0.01	<0.01	**0.17**
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0089_MW500_250919	0089_QC309_250919	0089_QC410_250923	0089_QC117_250923	0089_QC118_250923
				Sampling date / time	19-Sep-2025 17:18	19-Sep-2025 17:22	23-Sep-2025 21:20	23-Sep-2025 07:41	23-Sep-2025 08:07
Compound	CAS Number	LOR	Unit		EP2515823-031	EP2515823-033	EP2515823-035	EP2515823-037	EP2515823-040
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**92.0**	**105**	**113**	**112**	**100**
13C8-PFOA	----	0.02	%		**106**	**108**	**108**	**107**	**103**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD329_250923	0089_SD330_250923	0089_SD331_250923	0089_SD356_250923	0089_SD357_250923
				Sampling date / time	23-Sep-2025 21:11	23-Sep-2025 21:13	23-Sep-2025 21:06	23-Sep-2025 21:10	23-Sep-2025 21:14
Compound	CAS Number	LOR	Unit		EP2515823-020	EP2515823-021	EP2515823-022	EP2515823-023	EP2515823-024
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**20.7**	**8.3**	**29.0**	**23.2**	**28.1**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD329_250923	0089_SD330_250923	0089_SD331_250923	0089_SD356_250923	0089_SD357_250923
				Sampling date / time	23-Sep-2025 21:11	23-Sep-2025 21:13	23-Sep-2025 21:06	23-Sep-2025 21:10	23-Sep-2025 21:14
Compound	CAS Number	LOR	Unit		EP2515823-020	EP2515823-021	EP2515823-022	EP2515823-023	EP2515823-024
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**92.5**	**104**	**110**	**110**	**115**
13C8-PFOA	----	0.0002	%		**97.0**	**106**	**99.5**	**102**	**100**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD358_250923	----	----	----	----
				Sampling date / time	23-Sep-2025 21:12	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-025	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**9.6**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg		<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0089_SD358_250923	----	----	----	----
				Sampling date / time	23-Sep-2025 21:12	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-025	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		<0.0002	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		<0.0002	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**112**	----	----	----	----
13C8-PFOA	----	0.0002	%		**99.5**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW150_250923	0089_SW152_250923	0089_SW154_250923	0089_SW156_250923	0089_PW356_250923
				Sampling date / time	23-Sep-2025 08:02	23-Sep-2025 08:16	23-Sep-2025 08:08	23-Sep-2025 08:09	23-Sep-2025 07:59
Compound	CAS Number	LOR	Unit		EP2515823-026	EP2515823-027	EP2515823-028	EP2515823-029	EP2515823-038
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW150_250923	0089_SW152_250923	0089_SW154_250923	0089_SW156_250923	0089_PW356_250923
				Sampling date / time	23-Sep-2025 08:02	23-Sep-2025 08:16	23-Sep-2025 08:08	23-Sep-2025 08:09	23-Sep-2025 07:59
Compound	CAS Number	LOR	Unit		EP2515823-026	EP2515823-027	EP2515823-028	EP2515823-029	EP2515823-038
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_SW150_250923	0089_SW152_250923	0089_SW154_250923	0089_SW156_250923	0089_PW356_250923
				Sampling date / time	23-Sep-2025 08:02	23-Sep-2025 08:16	23-Sep-2025 08:08	23-Sep-2025 08:09	23-Sep-2025 07:59
Compound	CAS Number	LOR	Unit		EP2515823-026	EP2515823-027	EP2515823-028	EP2515823-029	EP2515823-038
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**100**	**106**	**108**	**104**	**108**
13C8-PFOA	----	0.02	%		**104**	**101**	**104**	**105**	**109**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW329_250923	0089_PW331_250923	0088_QC116_250923	0089_PW357_250923	0089_PW330_250923
				Sampling date / time	23-Sep-2025 08:06	23-Sep-2025 08:11	23-Sep-2025 08:18	23-Sep-2025 08:26	23-Sep-2025 08:29
Compound	CAS Number	LOR	Unit		EP2515823-039	EP2515823-041	EP2515823-042	EP2515823-043	EP2515823-044
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW329_250923	0089_PW331_250923	0088_QC116_250923	0089_PW357_250923	0089_PW330_250923
				Sampling date / time	23-Sep-2025 08:06	23-Sep-2025 08:11	23-Sep-2025 08:18	23-Sep-2025 08:26	23-Sep-2025 08:29
Compound	CAS Number	LOR	Unit		EP2515823-039	EP2515823-041	EP2515823-042	EP2515823-043	EP2515823-044
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW329_250923	0089_PW331_250923	0088_QC116_250923	0089_PW357_250923	0089_PW330_250923
				Sampling date / time	23-Sep-2025 08:06	23-Sep-2025 08:11	23-Sep-2025 08:18	23-Sep-2025 08:26	23-Sep-2025 08:29
Compound	CAS Number	LOR	Unit		EP2515823-039	EP2515823-041	EP2515823-042	EP2515823-043	EP2515823-044
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**106**	**108**	**104**	**103**	**109**
13C8-PFOA	----	0.02	%		**107**	**105**	**104**	**102**	**106**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW358_250923	----	----	----	----
				Sampling date / time	23-Sep-2025 08:30	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-045	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW358_250923	----	----	----	----
				Sampling date / time	23-Sep-2025 08:30	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-045	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0089_PW358_250923	----	----	----	----
				Sampling date / time	23-Sep-2025 08:30	----	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-045	--------	--------	--------	--------
					Result	----	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**103**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**104**	**----**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_QC115_250919	0089_QC310_250923	----	----	----
				Sampling date / time	19-Sep-2025 17:19	23-Sep-2025 21:17	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-032	EP2515823-034	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	<0.01	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_QC115_250919	0089_QC310_250923	----	----	----
				Sampling date / time	19-Sep-2025 17:19	23-Sep-2025 21:17	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-032	EP2515823-034	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	<0.01	----	----	----
EP231S: PFAS Surrogate									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0089_QC115_250919	0089_QC310_250923	----	----	----
				Sampling date / time	19-Sep-2025 17:19	23-Sep-2025 21:17	----	----	----
Compound	CAS Number	LOR	Unit		EP2515823-032	EP2515823-034	--------	--------	--------
					Result	Result	----	----	----
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	----	0.02	%		**104**	**110**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**104**	**108**	**----**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	76	136
13C8-PFOA	----	78	131

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EP2515823**

Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
E-mail	: [redacted]ghd.com	E-mail	: [redacted]alsglobal.com
Telephone	: ----	Telephone	: +61-8-9406 1301
Facsimile	: ----	Facsimile	: +61-8-9406 1399
Project	: WA_0089_PFASOMP_25	Page	: 1 of 4
Order number	: 12641234/02.2.6	Quote number	: EP2024GHDSER0016_V5 (EP24GHDSER0016_V5)
C-O-C number	: 88766	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0089		
Sampler	: [redacted]		

Dates

Date Samples Received	: 26-Sep-2025 16:30	Issue Date	: 04-Oct-2025
Client Requested Due Date	: 13-Oct-2025	Scheduled Reporting Date	: **13-Oct-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 3.0
Receipt Detail	:	No. of samples received / analysed	: 44 / 44

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- Please see scanned COC for sample discrepencies: extra samples , samples not received etc.
- Please direct any queries related to sample condition / numbering / breakages to Sample Receipt (Samples.Perth@alsglobal.com)
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Perth, NATA accreditation no. 825, site no. 15847.
- Please direct any turnaround / technical queries to the laboratory contact designated above.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **pH analysis should be conducted within 6 hours of sampling.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.
- **If Scheduled Reporting Date shown above is earlier than Client Requested Due Date, this reflects the date that a preliminary report is scheduled to be issued. Client Requested Due Date reflects the date that the final report is to be issued.**

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X-EP (solids) PFAS - Full Suite (30 analytes)
EP2515823-020	23-Sep-2025 21:11	0089_SD329_250923	✓	✓
EP2515823-021	23-Sep-2025 21:13	0089_SD330_250923	✓	✓
EP2515823-022	23-Sep-2025 21:06	0089_SD331_250923	✓	✓
EP2515823-023	23-Sep-2025 21:10	0089_SD356_250923	✓	✓
EP2515823-024	23-Sep-2025 21:14	0089_SD357_250923	✓	✓
EP2515823-025	23-Sep-2025 21:12	0089_SD358_250923	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2515823-001	19-Sep-2025 17:13	0089_MW109_250919	✓
EP2515823-002	24-Sep-2025 16:42	0089_MW112_250919	✓
EP2515823-003	19-Sep-2025 17:03	0089_MW120_250919	✓
EP2515823-004	19-Sep-2025 16:46	0089_MW121_250919	✓
EP2515823-005	19-Sep-2025 16:29	0089_MW123_250919	✓
EP2515823-006	19-Sep-2025 16:37	0089_MW124_250919	✓
EP2515823-007	19-Sep-2025 16:52	0089_MW128_250919	✓
EP2515823-008	23-Sep-2025 08:23	0089_MW161_250923	✓
EP2515823-009	23-Sep-2025 21:15	0089_MW166_250923	✓
EP2515823-010	23-Sep-2025 08:14	0089_MW171_250923	✓
EP2515823-011	23-Sep-2025 08:19	0089_MW200_250923	✓
EP2515823-012	19-Sep-2025 16:48	0089_MW202_250919	✓
EP2515823-013	19-Sep-2025 17:21	0089_MW289_250919	✓
EP2515823-014	23-Sep-2025 08:22	0089_MW227_250923	✓
EP2515823-015	23-Sep-2025 07:43	0089_MW139_250923	✓
EP2515823-016	23-Sep-2025 21:18	0089_MW141_250923	✓
EP2515823-017	23-Sep-2025 08:27	0089_MW142_250923	✓

			WATER - EP231X (EP) PFAS - Full Suite (30 analytes)
EP2515823-018	23-Sep-2025 21:22	0089_MW147_250923	✓
EP2515823-019	23-Sep-2025 08:15	0089_MW149_250923	✓
EP2515823-026	23-Sep-2025 08:02	0089_SW150_250923	✓
EP2515823-027	23-Sep-2025 08:16	0089_SW152_250923	✓
EP2515823-028	23-Sep-2025 08:08	0089_SW154_250923	✓
EP2515823-029	23-Sep-2025 08:09	0089_SW156_250923	✓
EP2515823-030	19-Sep-2025 16:33	0089_QC409_250919	✓
EP2515823-031	19-Sep-2025 17:18	0089_MW500_250919	✓
EP2515823-032	19-Sep-2025 17:19	0089_QC115_250919	✓
EP2515823-033	19-Sep-2025 17:22	0089_QC309_250919	✓
EP2515823-034	23-Sep-2025 21:17	0089_QC310_250923	✓
EP2515823-035	23-Sep-2025 21:20	0089_QC410_250923	✓
EP2515823-037	23-Sep-2025 07:41	0089_QC117_250923	✓
EP2515823-038	23-Sep-2025 07:59	0089_PW356_250923	✓
EP2515823-039	23-Sep-2025 08:06	0089_PW329_250923	✓
EP2515823-040	23-Sep-2025 08:07	0089_QC118_250923	✓
EP2515823-041	23-Sep-2025 08:11	0089_PW331_250923	✓
EP2515823-042	23-Sep-2025 08:18	0088_QC116_250923	✓
EP2515823-043	23-Sep-2025 08:26	0089_PW357_250923	✓
EP2515823-044	23-Sep-2025 08:29	0089_PW330_250923	✓
EP2515823-045	23-Sep-2025 08:30	0089_PW358_250923	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

Accounts Payable Australia

- A4 - AU Tax Invoice (INV)	Email	accountspayableAU@ghd.com

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA)	Email	derp.labreports@esdat.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	derp.labreports@esdat.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	derp.labreports@esdat.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	derp.labreports@esdat.com.au
- Chain of Custody (CoC) (COC)	Email	derp.labreports@esdat.com.au
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	derp.labreports@esdat.com.au

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

[redacted]

- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	[redacted]ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	[redacted]ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	[redacted]ghd.com
- Chain of Custody (CoC) (COC)	Email	[redacted]ghd.com
- EDI Format - ESDAT (ESDAT)	Email	[redacted]ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT)	Email	[redacted]ghd.com

QUALITY CONTROL REPORT

Work Order	: **EP2515823**	Page	: 1 of 21
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Contact	: [redacted]
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: ----	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 26-Sep-2025
Order number	: 12641234/02.2.6	Date Analysis Commenced	: 06-Oct-2025
C-O-C number	: 88766	Issue Date	: 29-Dec-2025
Sampler	: [redacted]		
Site	: 0089		
Quote number	: EP24GHDSER0016_V5		
No. of samples received	: 44		
No. of samples analysed	: 44		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
[redacted]	Inorganics Supervisor	Perth Inorganics, Wangara, WA
[redacted]	Organic Supervisor	Perth Organics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6913840)									
EP2515823-020	0089_SD329_250923	EA055: Moisture Content	----	0.1	%	20.7	20.9	0.7	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6911315)									
EP2515823-020	0089_SD329_250923	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2516268-027	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6911322)									
EP2515823-021	0089_SD330_250923	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6911322) - continued									
EP2515823-021	0089_SD330_250923	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2516329-003	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6911315)									
EP2515823-020	0089_SD329_250923	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2516268-027	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6911322)									
EP2515823-021	0089_SD330_250923	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6911322) - continued									
EP2515823-021	0089_SD330_250923	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP2516329-003	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6911315)									
EP2515823-020	0089_SD329_250923	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2516268-027	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6911315) - continued									
EP2516268-027	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6911322)									
EP2515823-021	0089_SD330_250923	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2516329-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6911315)									
EP2515823-020	0089_SD329_250923	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6911315) - continued									
EP2515823-020	0089_SD329_250923	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2516268-027	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6911322)									
EP2515823-021	0089_SD330_250923	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP2516329-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6911315)									
EP2515823-020	0089_SD329_250923	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2516268-027	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6911322)									
EP2515823-021	0089_SD330_250923	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231P: PFAS Sums (QC Lot: 6911322) - continued									
EP2515823-021	0089_SD330_250923	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP2516329-003	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6910435)									
EP2515823-002	0089_MW112_250919	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01 (0.04)*	µg/L	9.73	11.1	13.6	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01 (0.04)*	µg/L	33.2	34.6	4.2	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.30	0.31	4.6	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.30	0.31	0.0	0% - 50%
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02 (0.04)*	µg/L	0.29	0.26	11.2	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	0.02	0.03	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6910439)									
EP2515823-041	0089_PW331_250923	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP2515868-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6910435)									
EP2515823-002	0089_MW112_250919	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.65	0.68	4.9	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6910435) - continued									
EP2515823-002	0089_MW112_250919	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.49	0.50	0.0	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	1.31	1.36	3.2	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.90	0.94	4.2	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.02	0.03	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.2	0.2	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6910439)									
EP2515823-041	0089_PW331_250923	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP2515868-002	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6910435)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6910435) - continued									
EP2515823-002	0089_MW112_250919	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	0.50	0.52	5.1	0% - 20%
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 6910439)									
EP2515823-041	0089_PW331_250923	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515868-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6910435)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6910435) - continued									
EP2515823-002	0089_MW112_250919	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6910439)									
EP2515823-041	0089_PW331_250923	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP2515868-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 6910435)									
EP2515823-002	0089_MW112_250919	EP231X: Sum of PFAS	----	0.01 (0.04)*	µg/L	48.0	50.9	5.9	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01 (0.04)*	µg/L	42.9	45.7	6.3	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01 (0.04)*	µg/L	46.6	49.5	6.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 6910439)									
EP2515823-041	0089_PW331_250923	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP2515868-002	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.03	0.03	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6911315)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	85.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.6	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	92.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	72.3	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	97.4	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	102	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	111	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6911322)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.0011 mg/kg	95.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.2	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	81.4	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	83.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	93.1	68.0	136
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0002	mg/kg	<0.0002	0.0012 mg/kg	95.4	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.0012 mg/kg	100	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6911315)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	95.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.6	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.4	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	75.6	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	91.6	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6911322)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	88.1	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	69.0	132

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6911322) - continued								
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00125 mg/kg	92.4	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6911315)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	115	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	91.8	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6911322)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	59.6	143
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.2	62.8	140
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.5	61.5	139
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	91.2	61.9	139
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6911315)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	102	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	91.1	64.0	140

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6911315) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	89.2	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	86.7	54.8	124
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6911322)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	98.7	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00118 mg/kg	91.1	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	92.1	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.0012 mg/kg	97.1	54.8	124
EP231P: PFAS Sums (QCLot: 6911315)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231P: PFAS Sums (QCLot: 6911322)								
EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	<0.0002	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910435)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	103	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	101	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	93.3	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	94.3	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	99.6	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	97.1	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	100	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910437)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	93.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	96.1	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	81.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	98.3	69.0	134

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910437) - continued								
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	81.5	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	103	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	104	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910439)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.2218 µg/L	103	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.2352 µg/L	106	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.2373 µg/L	89.3	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	101	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	96.3	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.24 µg/L	97.1	70.0	135
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	106	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6910435)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	100	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	100	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	107	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	124	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	101	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	107	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6910437)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	96.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	87.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	85.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	85.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.2	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6910437) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	83.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	88.6	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	93.6	46.1	144
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6910439)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	107	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.25 µg/L	102	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	103	46.1	144
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910435)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	101	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	108	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	103	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	103	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910437)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	87.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	95.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	89.1	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.6	68.3	134

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910437) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.8	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	88.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910439)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	111	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	104	60.5	138
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	115	68.3	134
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	107	62.2	138
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	116	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6910435)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	96.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	104	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	113	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	101	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6910437)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	91.8	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	97.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	104	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	71.6	64.2	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6910439)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.2343 µg/L	99.4	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.2378 µg/L	104	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	100	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.241 µg/L	96.5	64.2	133
EP231P: PFAS Sums (QCLot: 6910435)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231P: PFAS Sums (QCLot: 6910435) - continued								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6910437)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 6910439)								
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6911315)							
EP2516268-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	89.3	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	85.9	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	96.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	79.0	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	95.6	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	104	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	112	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6911322)							
EP2515823-022	0089_SD331_250923	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0011 mg/kg	99.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00117 mg/kg	85.9	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00118 mg/kg	85.3	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	87.4	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	90.6	68.0	136
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.0012 mg/kg	105	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0012 mg/kg	100	59.0	134

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6911315)							
EP2516268-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	90.2	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	88.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	84.7	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.5	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	93.1	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	93.1	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	83.2	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	86.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	103	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	104	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	88.4	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6911322)							
EP2515823-022	0089_SD331_250923	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	91.5	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	90.4	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	91.7	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	88.9	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	93.1	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	92.8	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	97.2	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	99.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	93.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	92.1	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00125 mg/kg	97.2	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6911315)							
EP2516268-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	86.8	48.0	128
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	104	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	118	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	87.9	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	97.0	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	94.4	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6911322)							
EP2515823-022	0089_SD331_250923	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	82.1	48.0	128

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6911322) - continued							
EP2515823-022	0089_SD331_250923	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	108	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	92.3	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	104	60.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	98.9	60.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	91.6	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	107	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6911315)							
EP2516268-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	101	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	102	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	93.8	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	80.8	60.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6911322)							
EP2515823-022	0089_SD331_250923	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	96.1	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00118 mg/kg	101	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	92.4	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0012 mg/kg	93.6	60.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910435)							
EP2515823-016	0089_MW141_250923	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	98.8	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	109	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	# Not Determined	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	# Not Determined	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	114	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	124	53.0	129
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910439)							
EP2515868-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.2218 µg/L	100	72.0	129
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.232 µg/L	105	71.0	127

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6910439) - continued							
EP2515868-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.2352 µg/L	86.6	68.0	129
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	94.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	96.4	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.24 µg/L	92.5	70.0	135
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	94.0	53.0	129
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6910435)							
EP2515823-016	0089_MW141_250923	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.9	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	76.4	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	# Not Determined	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	91.2	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	# Not Determined	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	102	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	109	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	101	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	96.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	107	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	108	70.0	131
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6910439)							
EP2515868-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	93.9	73.0	142
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	99.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	91.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	89.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	94.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	99.2	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	103	71.0	134
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	98.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	96.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	102	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.25 µg/L	95.6	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	97.0	70.0	131
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910435)							
EP2515823-016	0089_MW141_250923	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	101	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	108	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	103	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910435) - continued							
EP2515823-016	0089_MW141_250923	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	106	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	104	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	111	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	91.3	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 6910439)							
EP2515868-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	89.6	59.0	135
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	104	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	93.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	90.9	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	99.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	96.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	89.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6910435)							
EP2515823-016	0089_MW141_250923	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	101	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	109	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	97.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6910439)							
EP2515868-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	94.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.2378 µg/L	102	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	110	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.2415 µg/L	91.3	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2515823**	Page	: 1 of 10
Amendment	: **1**		
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: [redacted]	Telephone	: +61-8-9406 1301
Project	: WA_0089_PFASOMP_25	Date Samples Received	: 26-Sep-2025
Site	: 0089	Issue Date	: 29-Dec-2025
Sampler	: [redacted]	No. of samples received	: 44
Order number	: 12641234/02.2.6	No. of samples analysed	: 44

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	EP2515823--016	0089_MW141_250923	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EP2515823--016	0089_MW141_250923	**Perfluoroheptane sulfonic acid (PFHpS)**	375-92-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EP2515823--016	0089_MW141_250923	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	EP2515823--016	0089_MW141_250923	**Perfluorohexanoic acid (PFHxA)**	307-24-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	EP2515823--016	0089_MW141_250923	**Perfluorooctanoic acid (PFOA)**	335-67-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA055: Moisture Content (Dried @ 105-110°C)						
HDPE Soil Jar						
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	----	----	----	08-Oct-2025	07-Oct-2025	**1**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Analytical Methods	Method	Count		Rate (%)		Quality Control Specification
		QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	48	6.25	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	48	4.17	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	**23-Sep-2025**	**----**	----	**----**	**08-Oct-2025**	07-Oct-2025	×
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	**23-Sep-2025**	**08-Oct-2025**	22-Mar-2026	✓	**09-Oct-2025**	17-Nov-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	**23-Sep-2025**	**08-Oct-2025**	22-Mar-2026	✓	**09-Oct-2025**	17-Nov-2025	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	**23-Sep-2025**	**08-Oct-2025**	22-Mar-2026	✓	**09-Oct-2025**	17-Nov-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	**23-Sep-2025**	**08-Oct-2025**	22-Mar-2026	✓	**09-Oct-2025**	17-Nov-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0089_SD329_250923, 0089_SD330_250923, 0089_SD331_250923, 0089_SD356_250923, 0089_SD357_250923, 0089_SD358_250923	**23-Sep-2025**	**08-Oct-2025**	22-Mar-2026	✓	**09-Oct-2025**	17-Nov-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_MW109_250919, 0089_MW120_250919, 0089_MW121_250919, 0089_MW123_250919, 0089_MW124_250919, 0089_MW128_250919, 0089_MW202_250919, 0089_MW289_250919, 0089_QC409_250919, 0089_MW500_250919, 0089_QC115_250919, 0089_QC309_250919	**19-Sep-2025**	**07-Oct-2025**	18-Mar-2026	✓	**07-Oct-2025**	18-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW161_250923, 0089_MW166_250923, 0089_MW171_250923, 0089_MW200_250923, 0089_MW227_250923, 0089_MW139_250923, 0089_MW141_250923, 0089_MW142_250923, 0089_MW147_250923, 0089_MW149_250923, 0089_SW150_250923, 0089_SW152_250923, 0089_SW154_250923, 0089_SW156_250923, 0089_QC310_250923, 0089_QC410_250923, 0089_QC117_250923, 0089_PW356_250923, 0089_PW329_250923, 0089_QC118_250923, 0089_PW331_250923, 0088_QC116_250923, 0089_PW357_250923, 0089_PW330_250923, 0089_PW358_250923	**23-Sep-2025**	**07-Oct-2025**	22-Mar-2026	✓	**07-Oct-2025**	22-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW112_250919	**24-Sep-2025**	**07-Oct-2025**	23-Mar-2026	✓	**07-Oct-2025**	23-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0089_MW109_250919, 0089_MW120_250919, 0089_MW121_250919, 0089_MW123_250919, 0089_MW124_250919, 0089_MW128_250919, 0089_MW202_250919, 0089_MW289_250919, 0089_QC409_250919, 0089_MW500_250919, 0089_QC115_250919, 0089_QC309_250919	**19-Sep-2025**	**07-Oct-2025**	18-Mar-2026	✓	**07-Oct-2025**	18-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW161_250923, 0089_MW166_250923, 0089_MW171_250923, 0089_MW200_250923, 0089_MW227_250923, 0089_MW139_250923, 0089_MW141_250923, 0089_MW142_250923, 0089_MW147_250923, 0089_MW149_250923, 0089_SW150_250923, 0089_SW152_250923, 0089_SW154_250923, 0089_SW156_250923, 0089_QC310_250923, 0089_QC410_250923, 0089_QC117_250923, 0089_PW356_250923, 0089_PW329_250923, 0089_QC118_250923, 0089_PW331_250923, 0088_QC116_250923, 0089_PW357_250923, 0089_PW330_250923, 0089_PW358_250923	**23-Sep-2025**	**07-Oct-2025**	22-Mar-2026	✓	**07-Oct-2025**	22-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW112_250919	**24-Sep-2025**	**07-Oct-2025**	23-Mar-2026	✓	**07-Oct-2025**	23-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0089_MW109_250919, 0089_MW120_250919, 0089_MW121_250919, 0089_MW123_250919, 0089_MW124_250919, 0089_MW128_250919, 0089_MW202_250919, 0089_MW289_250919, 0089_QC409_250919, 0089_MW500_250919, 0089_QC115_250919, 0089_QC309_250919	**19-Sep-2025**	**07-Oct-2025**	18-Mar-2026	✓	**07-Oct-2025**	18-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW161_250923, 0089_MW166_250923, 0089_MW171_250923, 0089_MW200_250923, 0089_MW227_250923, 0089_MW139_250923, 0089_MW141_250923, 0089_MW142_250923, 0089_MW147_250923, 0089_MW149_250923, 0089_SW150_250923, 0089_SW152_250923, 0089_SW154_250923, 0089_SW156_250923, 0089_QC310_250923, 0089_QC410_250923, 0089_QC117_250923, 0089_PW356_250923, 0089_PW329_250923, 0089_QC118_250923, 0089_PW331_250923, 0088_QC116_250923, 0089_PW357_250923, 0089_PW330_250923, 0089_PW358_250923	**23-Sep-2025**	**07-Oct-2025**	22-Mar-2026	✓	**07-Oct-2025**	22-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW112_250919	**24-Sep-2025**	**07-Oct-2025**	23-Mar-2026	✓	**07-Oct-2025**	23-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0089_MW109_250919, 0089_MW120_250919, 0089_MW121_250919, 0089_MW123_250919, 0089_MW124_250919, 0089_MW128_250919, 0089_MW202_250919, 0089_MW289_250919, 0089_QC409_250919, 0089_MW500_250919, 0089_QC115_250919, 0089_QC309_250919	**19-Sep-2025**	**07-Oct-2025**	18-Mar-2026	✓	**07-Oct-2025**	18-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW161_250923, 0089_MW166_250923, 0089_MW171_250923, 0089_MW200_250923, 0089_MW227_250923, 0089_MW139_250923, 0089_MW141_250923, 0089_MW142_250923, 0089_MW147_250923, 0089_MW149_250923, 0089_SW150_250923, 0089_SW152_250923, 0089_SW154_250923, 0089_SW156_250923, 0089_QC310_250923, 0089_QC410_250923, 0089_QC117_250923, 0089_PW356_250923, 0089_PW329_250923, 0089_QC118_250923, 0089_PW331_250923, 0088_QC116_250923, 0089_PW357_250923, 0089_PW330_250923, 0089_PW358_250923	**23-Sep-2025**	**07-Oct-2025**	22-Mar-2026	✓	**07-Oct-2025**	22-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW112_250919	**24-Sep-2025**	**07-Oct-2025**	23-Mar-2026	✓	**07-Oct-2025**	23-Mar-2026	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0089_MW109_250919, 0089_MW120_250919, 0089_MW121_250919, 0089_MW123_250919, 0089_MW124_250919, 0089_MW128_250919, 0089_MW202_250919, 0089_MW289_250919, 0089_QC409_250919, 0089_MW500_250919, 0089_QC115_250919, 0089_QC309_250919	**19-Sep-2025**	**07-Oct-2025**	18-Mar-2026	✓	**07-Oct-2025**	18-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW161_250923, 0089_MW166_250923, 0089_MW171_250923, 0089_MW200_250923, 0089_MW227_250923, 0089_MW139_250923, 0089_MW141_250923, 0089_MW142_250923, 0089_MW147_250923, 0089_MW149_250923, 0089_SW150_250923, 0089_SW152_250923, 0089_SW154_250923, 0089_SW156_250923, 0089_QC310_250923, 0089_QC410_250923, 0089_QC117_250923, 0089_PW356_250923, 0089_PW329_250923, 0089_QC118_250923, 0089_PW331_250923, 0088_QC116_250923, 0089_PW357_250923, 0089_PW330_250923, 0089_PW358_250923	**23-Sep-2025**	**07-Oct-2025**	22-Mar-2026	✓	**07-Oct-2025**	22-Mar-2026	✓
HDPE (no PTFE) (EP231X)							
0089_MW112_250919	**24-Sep-2025**	**07-Oct-2025**	23-Mar-2026	✓	**07-Oct-2025**	23-Mar-2026	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	6	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	39	**10.26**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	48	**6.25**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	48	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	48	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	48	**4.17**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. A portion of homogenised sample is extracted along with isotope dilution standards (where commercially available) in a solution of ammonium acetate in acetonitrile/methanol. Where relevant, interferences from co-extracted organics are removed using dispersive clean-up media (dSPE). A portion of extract is combined with an equal volume of reagent water and filtered for instrumental analysis.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Data quality objectives for internal standard recoveries are based on US EPA method 1633.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	* ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	* ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY: [redacted]	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 1630 26/9	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted], ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0089_MW109_250919		19/09/2025 05:13 PM	WATER	ALS: 2 Non ALS: 0	No			X					
002	0089_MW112_250919		24/09/2025 04:42 PM	WATER	ALS: 4 Non ALS: 0	No			X					
003	0089_MW120_250919		19/09/2025 05:03 PM	WATER	ALS: 2 Non ALS: 0	No			X					
004	0089_MW121_250919		19/09/2025 04:46 PM	WATER	ALS: 2 Non ALS: 0	No			X					
005	0089_MW123_250919		19/09/2025 04:29 PM	WATER	ALS: 2 Non ALS: 0	No			X					
006	0089_MW124_250919		19/09/2025 04:37 PM	WATER	ALS: 2 Non ALS: 0	No			X					
007	0089_MW128_250919		19/09/2025 04:52 PM	WATER	ALS: 2 Non ALS: 0	No			X					

Environmental Division Perth

Work Order Reference

EP2515823

Telephone - 61-8-9406 1301

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0089_MW161_250923		23/09/2025 08:23 AM	WATER	ALS: 2 Non ALS: 0	No			X					
009	0089_MW166_250923		23/09/2025 09:15 PM	WATER	ALS: 2 Non ALS: 0	No			X					
010	0089_MW171_250923		23/09/2025 08:14 AM	WATER	ALS: 2 Non ALS: 0	No			X					
011	0089_MW200_250923		23/09/2025 08:19 AM	WATER	ALS: 2 Non ALS: 0	No			X					
012	0089_MW202_250919		19/09/2025 04:48 PM	WATER	ALS: 2 Non ALS: 0	No			X					
013	0089_MW289_250919		19/09/2025 05:21 PM	WATER	ALS: 2 Non ALS: 0	No			X					
014	0089_MW227_250923		23/09/2025 08:22 AM	WATER	ALS: 2 Non ALS: 0	No			X					

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0089_MW139_250923		23/09/2025 07:43 AM	WATER	ALS: 2 Non ALS: 0	No			X					
016	0089_MW141_250923		23/09/2025 09:18 PM	WATER	ALS: 4 Non ALS: 0	No			X					
017	0089_MW142_250923		23/09/2025 08:27 AM	WATER	ALS: 2 Non ALS: 0	No			X					
018	0089_MW147_250923		23/09/2025 09:22 PM	WATER	ALS: 2 Non ALS: 0	No			X					
019	0089_MW149_250923		23/09/2025 08:15 AM	WATER	ALS: 2 Non ALS: 0	No			X					
020	0089_SD329_250923		23/09/2025 09:11 PM	SOIL	ALS: 1 Non ALS: 0	No					X			
021	0089_SD330_250923		23/09/2025 09:13 PM	SOIL	ALS: 1 Non ALS: 0	No					X			

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted], ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0089_SD331_250923		23/09/2025 09:06 PM	SOIL	ALS: 0 Non ALS: 0	No					X			
023	0089_SD356_250923		23/09/2025 09:10 PM	SOIL	ALS: 1 Non ALS: 0	No					X			
024	0089_SD357_250923		23/09/2025 09:14 PM	SOIL	ALS: 1 Non ALS: 0	No					X			
025	0089_SD358_250923		23/09/2025 09:12 PM	SOIL	ALS: 1 Non ALS: 0	No					X			
026	0089_SW150_250923		23/09/2025 08:02 AM	WATER	ALS: 2 Non ALS: 0	No						X		
027	0089_SW152_250923		23/09/2025 08:16 AM	WATER	ALS: 4 Non ALS: 0	No						X		
028	0089_SW154_250923		23/09/2025 08:08 AM	WATER	ALS: 2 Non ALS: 0	No						X		

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0089_SW156_250923		23/09/2025 08:09 AM	WATER	ALS: 2 Non ALS: 0	No						X		
030	0089_QC409_250919		19/09/2025 04:33 PM	WATER	ALS: 2 Non ALS: 0	No		X						
031	0089_MW500_250919		19/09/2025 05:18 PM	WATER	ALS: 2 Non ALS: 0	No			X					
032	0089_QC115_250919		19/09/2025 05:19 PM	SOIL	ALS: 2 Non ALS: 0	No			X					
033	0089_QC309_250919		19/09/2025 05:22 PM	WATER	ALS: 0 Non ALS: 0	No			X					
034	0089_QC310_250923		23/09/2025 09:17 PM	SOIL	ALS: 2 Non ALS: 0	No				X				
035	0089_QC410_250923		23/09/2025 09:20 PM	WATER	ALS: 2 Non ALS: 0	No		Partial 1/3						

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	Unknown			SOIL	ALS: 0 Non ALS: 0	No	-							
037	0089_QC117_250923		23/09/2025 07:41 AM	WATER	ALS: 2 Non ALS: 0	No			X					
038	0089_PW356_250923		23/09/2025 07:59 AM	WATER	ALS: 2 Non ALS: 0	No						X		
039	0089_PW329_250923		23/09/2025 08:06 AM	WATER	ALS: 2 Non ALS: 0	No						X		
040	0089_QC118_250923		23/09/2025 08:07 AM	WATER	ALS: 2 Non ALS: 0	No			X					
041	0089_PW331_250923		23/09/2025 08:11 AM	WATER	ALS: 4 Non ALS: 0	No						X		
042	0088_QC116_250923		23/09/2025 08:18 AM	WATER	ALS: 2 Non ALS: 0	No						X		

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED							
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	Field Blank (PFAS) - Water WATER	Groundwater - PFAS GROUNDWATER	Rinsate (PFAS) RINSATE	Soil & Sediment - PFAS SOIL	Surface/Pore Water - PFAS SURFACE WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0089_PW357_250923		23/09/2025 08:26 AM	WATER	ALS: 2 Non ALS: 0	No						X		
044	0089_PW330_250923		23/09/2025 08:29 AM	WATER	ALS: 2 Non ALS: 0	No						X		
045	0089_PW358_250923		23/09/2025 08:30 AM	WATER	ALS: 2 Non ALS: 0	No						X		

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0089_MW109_250919	HDPE (no PTFE)	20 mL	00352407186760	Grey	No	
001	0089_MW109_250919	HDPE (no PTFE)	20 mL	00350822060135	Grey	No	
002	0089_MW112_250919	HDPE (no PTFE)	20 mL	00352407186722	Grey	No	
002	0089_MW112_250919	HDPE (no PTFE)	20 mL	00352407186492	Grey	No	
002	0089_MW112_250919	HDPE (no PTFE)	20 mL	00352407186286	Grey	No	
002	0089_MW112_250919	HDPE (no PTFE)	20 mL	00352407186198	Grey	No	
003	0089_MW120_250919	HDPE (no PTFE)	20 mL	00352407186567	Grey	No	
003	0089_MW120_250919	HDPE (no PTFE)	20 mL	00352407186360	Grey	No	
004	0089_MW121_250919	HDPE (no PTFE)	20 mL	00350822060376	Grey	No	
004	0089_MW121_250919	HDPE (no PTFE)	20 mL	00352407186706	Grey	No	
005	0089_MW123_250919	HDPE (no PTFE)	20 mL	00350822060213	Grey	No	
005	0089_MW123_250919	HDPE (no PTFE)	20 mL	00350822060253	Grey	No	
006	0089_MW124_250919	HDPE (no PTFE)	20 mL	00352407186264	Grey	No	
006	0089_MW124_250919	HDPE (no PTFE)	20 mL	00352407186276	Grey	No	
007	0089_MW128_250919	HDPE (no PTFE)	20 mL	00352407186383	Grey	No	
007	0089_MW128_250919	HDPE (no PTFE)	20 mL	00352407186351	Grey	No	
008	0089_MW161_250923	HDPE (no PTFE)	20 mL	00350822060277	Grey	No	
008	0089_MW161_250923	HDPE (no PTFE)	20 mL	00350822060184	Grey	No	
009	0089_MW166_250923	HDPE (no PTFE)	20 mL	00352407186292	Grey	No	
009	0089_MW166_250923	HDPE (no PTFE)	20 mL	00352407186320	Grey	No	
010	0089_MW171_250923	HDPE (no PTFE)	20 mL	00352407186688	Grey	No	
010	0089_MW171_250923	HDPE (no PTFE)	20 mL	00352407186291	Grey	No	
011	0089_MW200_250923	HDPE (no PTFE)	20 mL	00352407186371	Grey	No	
011	0089_MW200_250923	HDPE (no PTFE)	20 mL	00352407186196	Grey	No	
012	0089_MW202_250919	HDPE (no PTFE)	20 mL	00350822083840	Grey	No	
012	0089_MW202_250919	HDPE (no PTFE)	20 mL	00350822083884	Grey	No	

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

013	0089_MW289_250919	HDPE (no PTFE)	20 mL	00350822083855	Grey	No	
013	0089_MW289_250919	HDPE (no PTFE)	20 mL	00350822060262	Grey	No	
014	0089_MW227_250923	HDPE (no PTFE)	20 mL	00352407186583	Grey	No	
014	0089_MW227_250923	HDPE (no PTFE)	20 mL	00352407186540	Grey	No	
015	0089_MW139_250923	HDPE (no PTFE)	20 mL	00352407186508	Grey	No	
015	0089_MW139_250923	HDPE (no PTFE)	20 mL	00352407186744	Grey	No	
016	0089_MW141_250923	HDPE (no PTFE)	20 mL	00352407186557	Grey	No	
016	0089_MW141_250923	HDPE (no PTFE)	20 mL	00352407186735	Grey	No	
016	0089_MW141_250923	HDPE (no PTFE)	20 mL	00352407186732	Grey	No	
016	0089_MW141_250923	HDPE (no PTFE)	20 mL	00352407186641	Grey	No	
017	0089_MW142_250923	HDPE (no PTFE)	20 mL	00350822060314	Grey	No	
017	0089_MW142_250923	HDPE (no PTFE)	20 mL	00350822060372	Grey	No	
018	0089_MW147_250923	HDPE (no PTFE)	20 mL	00352407186486	Grey	No	
018	0089_MW147_250923	HDPE (no PTFE)	20 mL	00352407186767	Grey	No	
019	0089_MW149_250923	HDPE (no PTFE)	20 mL	00352407186625	Grey	No	
019	0089_MW149_250923	HDPE (no PTFE)	20 mL	00352407186387	Grey	No	
020	0089_SD329_250923	HDPE Soil Jar	200 mL	00620724057858	Grey	No	
021	0089_SD330_250923	HDPE Soil Jar	200 mL	00620724057789	Grey	No	
023	0089_SD356_250923	HDPE Soil Jar	200 mL	00621122107271	Grey	No	
024	0089_SD357_250923	HDPE Soil Jar	200 mL	00620724057891	Grey	No	
025	0089_SD358_250923	HDPE Soil Jar	200 mL	00620724057828	Grey	No	
026	0089_SW150_250923	HDPE (no PTFE)	20 mL	00352407186542	Grey	No	
026	0089_SW150_250923	HDPE (no PTFE)	20 mL	00352407186517	Grey	No	
027	0089_SW152_250923	HDPE (no PTFE)	20 mL	00350822060316	Grey	No	
027	0089_SW152_250923	HDPE (no PTFE)	20 mL	00350822083837	Grey	No	
027	0089_SW152_250923	HDPE (no PTFE)	20 mL	00350822060124	Grey	No	
027	0089_SW152_250923	HDPE (no PTFE)	20 mL	00350822060199	Grey	No	

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER: [redacted]

CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted], ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

028	0089_SW154_250923	HDPE (no PTFE)	20 mL	00352407186442	Grey	No	
028	0089_SW154_250923	HDPE (no PTFE)	20 mL	00352407186635	Grey	No	
029	0089_SW156_250923	HDPE (no PTFE)	20 mL	00350822060355	Grey	No	
029	0089_SW156_250923	HDPE (no PTFE)	20 mL	00350822060017	Grey	No	
030	0089_QC409_250919	HDPE (no PTFE)	20 mL	00350822060224	Grey	No	
030	0089_QC409_250919	HDPE (no PTFE)	20 mL	00350822083911	Grey	No	
031	0089_MW500_250919	HDPE (no PTFE)	20 mL	00352407186746	Grey	No	
031	0089_MW500_250919	HDPE (no PTFE)	20 mL	00352407186294	Grey	No	
032	0089_QC115_250919	HDPE (no PTFE)	20 mL	00350822060323	Grey	No	
032	0089_QC115_250919	HDPE (no PTFE)	20 mL	00352407186279	Grey	No	
034	0089_QC310_250923	HDPE (no PTFE)	20 mL	00352407186413	Grey	No	
034	0089_QC310_250923	HDPE (no PTFE)	20 mL	00352407186521	Grey	No	
035	0089_QC410_250923	HDPE (no PTFE)	20 mL	00352407186256	Grey	No	
035	0089_QC410_250923	HDPE (no PTFE)	20 mL	00352407186252	Grey	No	
037	0089_QC117_250923	HDPE (no PTFE)	20 mL	00352407186514	Grey	No	
037	0089_QC117_250923	HDPE (no PTFE)	20 mL	00352407186692	Grey	No	
038	0089_PW356_250923	HDPE (no PTFE)	20 mL	00352407186742	Grey	No	
038	0089_PW356_250923	HDPE (no PTFE)	20 mL	00352407186745	Grey	No	
039	0089_PW329_250923	HDPE (no PTFE)	20 mL	00350822083862	Grey	No	
039	0089_PW329_250923	HDPE (no PTFE)	20 mL	00350822060133	Grey	No	
040	0089_QC118_250923	HDPE (no PTFE)	20 mL	00352407186299	Grey	No	
040	0089_QC118_250923	HDPE (no PTFE)	20 mL	00352407186239	Grey	No	
041	0089_PW331_250923	HDPE (no PTFE)	20 mL	00352407186218	Grey	No	
041	0089_PW331_250923	HDPE (no PTFE)	20 mL	00352407186673	Grey	No	
041	0089_PW331_250923	HDPE (no PTFE)	20 mL	00352407186506	Grey	No	
041	0089_PW331_250923	HDPE (no PTFE)	20 mL	00352407186652	Grey	No	
042	0088_QC116_250923	HDPE (no PTFE)	20 mL	00352407186730	Grey	No	

CHAIN OF CUSTODY

COC#: **88766** *ALS Laboratory:* EP Perth Environmental

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: GHDSER - GHD PTY LTD

PROJECT: WA_0089_PFASOMP_25

SITE: 0089

ORDER NO: 12641234/02.2.6

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

PROJECT MANAGER [redacted] CONTACT PH: [redacted] SAMPLER MOBILE: [redacted]

PRIMARY SAMPLER: [redacted] QUOTE NO: EP24GHDSER0016 / EP2024GHDSER0016

EMAIL REPORTS TO: [redacted] ghd.labreports@ghd.com, derp.labreports@esdat.com

EMAIL INVOICES TO: accountspayableau@ghd.com

042	0088_QC116_250923	HDPE (no PTFE)	20 mL	00352407186524	Grey	No	
043	0089_PW357_250923	HDPE (no PTFE)	20 mL	00352407186449	Grey	No	
043	0089_PW357_250923	HDPE (no PTFE)	20 mL	00352407186412	Grey	No	
044	0089_PW330_250923	HDPE (no PTFE)	20 mL	00352407186510	Grey	No	
044	0089_PW330_250923	HDPE (no PTFE)	20 mL	00352407186423	Grey	No	
045	0089_PW358_250923	HDPE (no PTFE)	20 mL	00352407186369	Grey	No	
045	0089_PW358_250923	HDPE (no PTFE)	20 mL	00352407186193	Grey	No	

Total Bottle Count: ALS: 87, Non ALS: 0

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: [redacted]

Report **1270698-S**
Project name WA_0089_PFASOMP_25
Received Date Sep 19, 2025

Client Sample ID			**0089_QC201_250909**	**0089_QC203_250910**	**0089_QC205_250912**	**0089_QC211_250916**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-Se0063821**	**L25-Se0063823**	**L25-Se0063825**	**L25-Se0063831**
Date Sampled			**Sep 09, 2025**	**Sep 10, 2025**	**Sep 12, 2025**	**Sep 16, 2025**
Test/Reference	LOR	Unit				
% Moisture	1	%	37	25	41	26
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	81	83	79	89
13C5-PFPeA (surr.)	1	%	94	89	90	94
13C5-PFHxA (surr.)	1	%	90	94	87	95
13C4-PFHpA (surr.)	1	%	88	95	87	94
13C8-PFOA (surr.)	1	%	90	93	88	97
13C5-PFNA (surr.)	1	%	93	89	87	96
13C6-PFDA (surr.)	1	%	91	88	87	92
13C2-PFUnDA (surr.)	1	%	83	92	81	91
13C2-PFDoDA (surr.)	1	%	88	86	88	88
13C2-PFTeDA (surr.)	1	%	81	80	83	82
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	95	92	87	98

Client Sample ID			0089_QC201_250909	0089_QC203_250910	0089_QC205_250912	0089_QC211_250916
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-Se0063821**	**L25-Se0063823**	**L25-Se0063825**	**L25-Se0063831**
Date Sampled			**Sep 09, 2025**	**Sep 10, 2025**	**Sep 12, 2025**	**Sep 16, 2025**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	78	76	78	80
D5-N-EtFOSA (surr.)	1	%	85	84	87	92
D7-N-MeFOSE (surr.)	1	%	93	95	92	98
D9-N-EtFOSE (surr.)	1	%	91	93	95	97
D5-N-EtFOSAA (surr.)	1	%	100	98	92	95
D3-N-MeFOSAA (surr.)	1	%	86	84	84	104
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	87	94	85	95
13C2-6:2 FTSA (surr.)	1	%	95	100	84	88
13C2-8:2 FTSA (surr.)	1	%	92	81	88	87
13C2-10:2 FTSA (surr.)	1	%	95	98	103	93
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS)*[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)*[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	89	86	83	90
18O2-PFHxS (surr.)	1	%	87	85	82	92
13C8-PFOS (surr.)	1	%	95	87	81	91
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
% Moisture	Welshpool	Sep 19, 2025	14 Days
- Method: ARL135 Moisture in Solids			
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1270698
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 19, 2025 3:15 PM
Due: Sep 26, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC201_250909	Sep 09, 2025		Soil	L25-Se0063821	X	X
2	0089_QC202_250909	Sep 09, 2025		Water	L25-Se0063822		X
3	0089_QC203_250910	Sep 10, 2025		Soil	L25-Se0063823	X	X
4	0089_QC204_250910	Sep 10, 2025		Water	L25-Se0063824		X
5	0089_QC205_250912	Sep 12, 2025		Soil	L25-Se0063825	X	X
6	0089_QC206_250912	Sep 12, 2025		Water	L25-Se0063826		X
7	0089_QC207_250912	Sep 12, 2025		Water	L25-Se0063827		X
8	0089_QC208_250912	Sep 12, 2025		Water	L25-Se0063828		X
9	0089_QC209_250915	Sep 15, 2025		Water	L25-Se0063829		X

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

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46-48 Banksia Road
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ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
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NATA# 1261
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Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
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+61 2 9900 8400
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Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1270698
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 19, 2025 3:15 PM
Due: Sep 26, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_250915	Sep 15, 2025		Water	L25-Se0063830		X
11	0089_QC211_250916	Sep 16, 2025		Soil	L25-Se0063831	X	X
12	0089_QC212_250916	Sep 16, 2025		Water	L25-Se0063832		X
13	0089_QC213_250917	Sep 17, 2025		Water	L25-Se0063833		X
14	0089_QC214_250918	Sep 18, 2025		Water	L25-Se0063834		X
Test Counts						4	14

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	97			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	91			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	114			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	91			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	110			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	114			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	110			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	109			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	115			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	97			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	117			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	108			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	104			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	111			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	110			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	105			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	95			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	107			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	108			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	109			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	111			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	101			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	105			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	100			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	103			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	104			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	101			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	102			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	97			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-Se0064028	NCP	%	17	17	2.0	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Se0063821	CP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Se0063821	CP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Se0063821	CP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Se0063821	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-Sample Properties
[redacted] Senior Analyst-PFAS

[redacted]

[redacted]

General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: [redacted]

Report **1270698-W**
Project name WA_0089_PFASOMP_25
Received Date Sep 19, 2025

Client Sample ID			**0089_QC202_250909**	**0089_QC204_250910**	**0089_QC206_250912**	**0089_QC207_250912**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Se0063822**	**L25-Se0063824**	**L25-Se0063826**	**L25-Se0063827**
Date Sampled			**Sep 09, 2025**	**Sep 10, 2025**	**Sep 12, 2025**	**Sep 12, 2025**
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	54	J-44	61	62
13C5-PFPeA (surr.)	1	%	82	73	79	72
13C5-PFHxA (surr.)	1	%	79	74	82	74
13C4-PFHpA (surr.)	1	%	80	73	75	73
13C8-PFOA (surr.)	1	%	81	74	74	75
13C5-PFNA (surr.)	1	%	76	73	75	78
13C6-PFDA (surr.)	1	%	74	70	76	74
13C2-PFUnDA (surr.)	1	%	69	64	69	65
13C2-PFDoDA (surr.)	1	%	69	62	63	63
13C2-PFTeDA (surr.)	1	%	62	55	53	57
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	70	65	56	66
D3-N-MeFOSA (surr.)	1	%	J-47	J-42	J-44	J-43
D5-N-EtFOSA (surr.)	1	%	50	J-46	J-47	J-46

Client Sample ID			0089_QC202_250909	0089_QC204_250910	0089_QC206_250912	0089_QC207_250912
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Se0063822	L25-Se0063824	L25-Se0063826	L25-Se0063827
Date Sampled			Sep 09, 2025	Sep 10, 2025	Sep 12, 2025	Sep 12, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D7-N-MeFOSE (surr.)	1	%	J-47	J-44	J-46	J-46
D9-N-EtFOSE (surr.)	1	%	50	J-44	J-46	J-47
D5-N-EtFOSAA (surr.)	1	%	73	67	63	62
D3-N-MeFOSAA (surr.)	1	%	69	63	69	61
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	78	77	80	78
13C2-6:2 FTSA (surr.)	1	%	77	79	83	67
13C2-8:2 FTSA (surr.)	1	%	79	74	69	67
13C2-10:2 FTSA (surr.)	1	%	63	63	70	64
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	0.02	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	82	76	81	79
18O2-PFHxS (surr.)	1	%	79	73	75	73
13C8-PFOS (surr.)	1	%	75	69	74	69
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.02	< 0.01
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.02	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.02	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			0089_QC208_250912	0089_QC209_250915	0089_QC210_250915	0089_QC212_250916
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Se0063828	L25-Se0063829	L25-Se0063830	L25-Se0063832
Date Sampled			Sep 12, 2025	Sep 15, 2025	Sep 15, 2025	Sep 16, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	0.03	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	0.02	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0089_QC208_250912	0089_QC209_250915	0089_QC210_250915	0089_QC212_250916
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Se0063828	L25-Se0063829	L25-Se0063830	L25-Se0063832
Date Sampled			Sep 12, 2025	Sep 15, 2025	Sep 15, 2025	Sep 16, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	103	69	66	52
13C5-PFPeA (surr.)	1	%	142	75	73	75
13C5-PFHxA (surr.)	1	%	143	74	72	74
13C4-PFHpA (surr.)	1	%	145	73	71	71
13C8-PFOA (surr.)	1	%	147	75	71	71
13C5-PFNA (surr.)	1	%	146	74	70	72
13C6-PFDA (surr.)	1	%	140	72	68	70
13C2-PFUnDA (surr.)	1	%	119	65	65	64
13C2-PFDoDA (surr.)	1	%	114	64	63	60
13C2-PFTeDA (surr.)	1	%	93	61	60	55
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	111	63	63	65
D3-N-MeFOSA (surr.)	1	%	77	[J-]40	[J-]42	[J-]39
D5-N-EtFOSA (surr.)	1	%	82	[J-]46	[J-]46	[J-]44
D7-N-MeFOSE (surr.)	1	%	85	[J-]43	[J-]45	[J-]47
D9-N-EtFOSE (surr.)	1	%	84	[J-]45	[J-]46	[J-]47
D5-N-EtFOSAA (surr.)	1	%	116	68	69	67
D3-N-MeFOSAA (surr.)	1	%	121	61	61	64
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	140	77	64	72
13C2-6:2 FTSA (surr.)	1	%	141	79	73	68
13C2-8:2 FTSA (surr.)	1	%	132	69	74	65
13C2-10:2 FTSA (surr.)	1	%	119	65	64	64

Client Sample ID			0089_QC208_250912	0089_QC209_250915	0089_QC210_250915	0089_QC212_250916
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-Se0063828	L25-Se0063829	L25-Se0063830	L25-Se0063832
Date Sampled			Sep 12, 2025	Sep 15, 2025	Sep 15, 2025	Sep 16, 2025
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]0.03	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	0.07	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	140	77	72	73
18O2-PFHxS (surr.)	1	%	137	73	67	70
13C8-PFOS (surr.)	1	%	134	68	67	66
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.1	< 0.01
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	0.2	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.07	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.1	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	0.15	< 0.05

Client Sample ID			0089_QC213_250917	0089_QC214_250918
Sample Matrix			Water	Water
Eurofins Sample No.			L25-Se0063833	L25-Se0063834
Date Sampled			Sep 17, 2025	Sep 18, 2025
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	0.10	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	0.12	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	0.85	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	[N09]0.41	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	[N09]1.8	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	1.3	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	51	[J-]45
13C5-PFPeA (surr.)	1	%	55	53
13C5-PFHxA (surr.)	1	%	52	51
13C4-PFHpA (surr.)	1	%	[J-]49	[J-]49
13C8-PFOA (surr.)	1	%	61	52
13C5-PFNA (surr.)	1	%	58	[J-]48
13C6-PFDA (surr.)	1	%	[J-]49	[J-]48
13C2-PFUnDA (surr.)	1	%	[J-]47	[J-]43
13C2-PFDoDA (surr.)	1	%	[J-]44	[J-]42
13C2-PFTeDA (surr.)	1	%	[J-]39	[J-]36

Client Sample ID			0089_QC213_250917	0089_QC214_250918
Sample Matrix			Water	Water
Eurofins Sample No.			L25-Se0063833	L25-Se0063834
Date Sampled			Sep 17, 2025	Sep 18, 2025
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	[J-]49	[J-]45
D3-N-MeFOSA (surr.)	1	%	[J-]34	[J-]30
D5-N-EtFOSA (surr.)	1	%	[J-]35	[J-]33
D7-N-MeFOSE (surr.)	1	%	[J-]46	[J-]39
D9-N-EtFOSE (surr.)	1	%	[J-]46	[J-]40
D5-N-EtFOSAA (surr.)	1	%	53	[J-]42
D3-N-MeFOSAA (surr.)	1	%	[J-]49	[J-]42
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	64	61
13C2-6:2 FTSA (surr.)	1	%	67	61
13C2-8:2 FTSA (surr.)	1	%	71	62
13C2-10:2 FTSA (surr.)	1	%	71	60
Perfluoroalkyl sulfonic acids (PFSAs)				
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	0.22	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	0.06	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	[N09]0.37	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	[N09]29	[N09]0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	0.51	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	36	0.02
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	54	55
18O2-PFHxS (surr.)	1	%	62	51
13C8-PFOS (surr.)	1	%	[J-]49	[J-]50
PFASs Summations				
Sum (PFHxS + PFOS)*	0.01	ug/L	65	0.03
Sum of PFASs (n=30)*	0.1	ug/L	71	< 0.1
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	38	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	66.8	0.03
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	68.5	< 0.05

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Sep 22, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1270698
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 19, 2025 3:15 PM
Due: Sep 26, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC201_250909	Sep 09, 2025		Soil	L25-Se0063821	X	X
2	0089_QC202_250909	Sep 09, 2025		Water	L25-Se0063822		X
3	0089_QC203_250910	Sep 10, 2025		Soil	L25-Se0063823	X	X
4	0089_QC204_250910	Sep 10, 2025		Water	L25-Se0063824		X
5	0089_QC205_250912	Sep 12, 2025		Soil	L25-Se0063825	X	X
6	0089_QC206_250912	Sep 12, 2025		Water	L25-Se0063826		X
7	0089_QC207_250912	Sep 12, 2025		Water	L25-Se0063827		X
8	0089_QC208_250912	Sep 12, 2025		Water	L25-Se0063828		X
9	0089_QC209_250915	Sep 15, 2025		Water	L25-Se0063829		X

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

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Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

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Unit 1,2 Dacre Street
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ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1270698
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 19, 2025 3:15 PM
Due: Sep 26, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_250915	Sep 15, 2025		Water	L25-Se0063830		X
11	0089_QC211_250916	Sep 16, 2025		Soil	L25-Se0063831	X	X
12	0089_QC212_250916	Sep 16, 2025		Water	L25-Se0063832		X
13	0089_QC213_250917	Sep 17, 2025		Water	L25-Se0063833		X
14	0089_QC214_250918	Sep 18, 2025		Water	L25-Se0063834		X
Test Counts						4	14

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.05			0.05	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	116			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	102			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	104			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	104			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	116			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	106			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	112			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	116			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	104			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	118			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	102			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	100			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	108			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	110			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	108			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	100			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	98			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	100			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	106			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	118			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	106			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	98			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	104			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	98			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	100			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	98			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	98			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	118			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	102			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	92			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Se0063826	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Se0063826	CP	ug/L	0.02	0.02	2.0	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Se0063826	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
J-	If the percent recoveries were less than the lower control limit, qualify detects for the analyte in associated samples as estimated with a negative bias J-.
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-PFAS

[redacted]
General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street Perth WA 6000
PO Box 3106 Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* WA_0089_PFASOMP_25	**PO Number** (to be invoiced) 12641234
Laboratory Quote No. 240523GHDW	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com [redacted]	**Email Address (Results)** GHD.LabReports@ghd.com DCARM-WA_LABREPORTS@GHD.COM DERP.LABREPORTS@ESDAT.COM.AU [redacted]

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container No	Analyses: PFAS Full Suite standard (30 compounds)	Analyses: HOLD	Remarks
0089_QC201_250909		9/09/2025		S	Plastic	UP	1	x		
0089_QC202_250909		9/09/2025		W	Plastic	UP	2	x		
0089_QC203_250910		10/09/2025		S	Plastic	UP	1	x		
0089_QC204_250910		10/09/2025		W	Plastic	UP	2	x		
0089_QC205_250912		12/09/2025		S	Plastic	UP	1	x		
0089_QC206_250912		12/09/2025		W	Plastic	UP	2	x		
0089_QC207_250912		12/09/2025		W	Plastic	UP	2	x		
0089_QC208_250912		12/09/2025		W	Plastic	UP	2	x		
0089_QC209_250915		15/09/2025		W	Plastic	UP	2	x		
0089_QC210_250915		15/09/2025		W	Plastic	UP	2	x		
0089_QC211_250916		16/09/2025		S	Plastic	UP	1	x		
0089_QC212_250916		16/09/2025		W	Plastic	UP	2	x		
0089_QC213_250917		17/09/2025		W	Plastic	UP	2	x		
0089_QC214_250918		18/09/2025		W	Plastic	UP	2	x		

Sampled by [redacted]		Date/Time: 09/09/2025 - 18/09/2025	Relinquished by [redacted]	Date/Time: 18/09/2025
Received by: [redacted]		Date/Time: 19/9/25 15:15 12°C	Relinquished by: #1270698	Date/Time:

www.eurofins.com.au EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Perth	Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
46-48 Banksia Road	6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Welshpool	Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
WA 6106	VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 8 6253 4444	+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	+61 7 3902 4600	+61 2 4968 8448
NATA# 2377	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 2370 & 2554	Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Sample Receipt Advice

Company name: GHD Pty Ltd WA
Contact name: [redacted]
Project name: WA_0089_PFASOMP_25
Project ID: Not provided
Turnaround time: 5 Day
Date/Time received Sep 19, 2025 3:15 PM
Eurofins reference 1270698

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 12 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
N/A	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

[redacted] **on phone : or by email:** [redacted] **eurofinsanz.com**

Results will be delivered electronically via email to [redacted] - [redacted] ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd WA email address.

Global Leader - Results you can trust

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1270698
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 19, 2025 3:15 PM
Due: Sep 26, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	0089_QC201_250909	Sep 09, 2025		Soil	L25-Se0063821	X	X
2	0089_QC202_250909	Sep 09, 2025		Water	L25-Se0063822		X
3	0089_QC203_250910	Sep 10, 2025		Soil	L25-Se0063823	X	X
4	0089_QC204_250910	Sep 10, 2025		Water	L25-Se0063824		X
5	0089_QC205_250912	Sep 12, 2025		Soil	L25-Se0063825	X	X
6	0089_QC206_250912	Sep 12, 2025		Water	L25-Se0063826		X
7	0089_QC207_250912	Sep 12, 2025		Water	L25-Se0063827		X
8	0089_QC208_250912	Sep 12, 2025		Water	L25-Se0063828		X
9	0089_QC209_250915	Sep 15, 2025		Water	L25-Se0063829		X

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
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19/8 Lewalan Street
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NATA# 1261
Site# 20794 & 2780

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1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1270698
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 19, 2025 3:15 PM
Due: Sep 26, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X
External Laboratory							
10	0089_QC210_250915	Sep 15, 2025		Water	L25-Se0063830		X
11	0089_QC211_250916	Sep 16, 2025		Soil	L25-Se0063831	X	X
12	0089_QC212_250916	Sep 16, 2025		Water	L25-Se0063832		X
13	0089_QC213_250917	Sep 17, 2025		Water	L25-Se0063833		X
14	0089_QC214_250918	Sep 18, 2025		Water	L25-Se0063834		X
Test Counts						4	14

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: [redacted]

Report **1273096-W**
Project name
Project ID WA_0089_PFASOMP_25
Received Date Sep 25, 2025

Client Sample ID			**0089_QC215_250919**	**0089_QC216_250923**	**0089_QC217_250923**	**0089_QC218_250923**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Se0082175**	**L25-Se0082176**	**L25-Se0082177**	**L25-Se0082178**
Date Sampled			**Sep 19, 2025**	**Sep 23, 2025**	**Sep 23, 2025**	**Sep 23, 2025**
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.05
Perfluoroheptanoic acid (PFHpA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	[J-]30	[J-]10	[J-]41	[J-]33
13C5-PFPeA (surr.)	1	%	[J-]37	[J-]41	54	[J-]46
13C5-PFHxA (surr.)	1	%	[J-]48	[J-]46	55	57
13C4-PFHpA (surr.)	1	%	56	[J-]47	55	60
13C8-PFOA (surr.)	1	%	58	[J-]43	[J-]48	53
13C5-PFNA (surr.)	1	%	53	[J-]38	[J-]50	58
13C6-PFDA (surr.)	1	%	[J-]43	[J-]30	[J-]41	53
13C2-PFUnDA (surr.)	1	%	[J-]28	[J-]9.0	[J-]31	[J-]38
13C2-PFDoDA (surr.)	1	%	[J-]18	[J-]18	[J-]17	[J-]20
13C2-PFTeDA (surr.)	1	%	[J-]10	[J-]10	[J-]10	[J-]10
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	[J-]22	[J-]31	60	66
D3-N-MeFOSA (surr.)	1	%	[J-]37	[J-]16	[J-]29	[J-]26

Client Sample ID			0089_QC215_250919	0089_QC216_250923	0089_QC217_250923	0089_QC218_250923
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-Se0082175**	**L25-Se0082176**	**L25-Se0082177**	**L25-Se0082178**
Date Sampled			**Sep 19, 2025**	**Sep 23, 2025**	**Sep 23, 2025**	**Sep 23, 2025**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	J-27	J-14	J-27	J-26
D7-N-MeFOSE (surr.)	1	%	J-19	J-13	J-33	J-41
D9-N-EtFOSE (surr.)	1	%	14	16	32	33
D5-N-EtFOSAA (surr.)	1	%	J-43	J-26	54	71
D3-N-MeFOSAA (surr.)	1	%	52	J-27	58	67
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	76	52	59	70
13C2-6:2 FTSA (surr.)	1	%	128	66	91	122
13C2-8:2 FTSA (surr.)	1	%	83	76	81	96
13C2-10:2 FTSA (surr.)	1	%	J-30	J-10	J-47	58
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)*[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.22
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	0.03	< 0.01	< 0.01	0.04
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	57	51	54	70
18O2-PFHxS (surr.)	1	%	61	J-45	52	57
13C8-PFOS (surr.)	1	%	J-48	58	J-46	55
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.03	< 0.01	< 0.01	0.26
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	0.3
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.03	< 0.01	< 0.01	0.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.03	< 0.01	< 0.01	0.26
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	0.31

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Perfluoroalkyl carboxylic acids (PFCAs)	Welshpool	Sep 30, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonamido substances	Welshpool	Sep 30, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Welshpool	Sep 30, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			
Perfluoroalkyl sulfonic acids (PFSAs)	Welshpool	Sep 30, 2025	28 Days
- Method: Method ARL0510_ARL0511 PFAS in aqueous & solid samples by LC-MS/MS			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name:
Project ID: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1273096
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 25, 2025 2:00 PM
Due: Oct 3, 2025
Priority: 5 Day
Contact Name: [redacted]

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	0089_QC215_250919	Sep 19, 2025		Water	L25-Se0082175	X
2	0089_QC216_250923	Sep 23, 2025		Water	L25-Se0082176	X
3	0089_QC217_250923	Sep 23, 2025		Water	L25-Se0082177	X
4	0089_QC218_250923	Sep 23, 2025		Water	L25-Se0082178	X
Test Counts						4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ppm: parts per million
µg/L: micrograms per litre
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit
Colour: Pt-Co Units (CU)

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.05			0.05	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	96			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	90			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	112			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	102			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	106			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	112			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	108			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	126			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	136			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	124			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	108			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	96			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	112			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	146			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	132			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	112			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	116			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	110			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	114			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	144			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	126			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	148			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	98			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)*	%	104			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	%	96			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	96			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	104			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	110			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	108			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	102			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	L25-Se0076270	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)*	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)*	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	L25-Se0076270	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
J-	If the percent recoveries were less than the lower control limit, qualify detects for the analyte in associated samples as estimated with a negative bias J-.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

[redacted] Analytical Services Manager
[redacted] Senior Analyst-PFAS

[redacted]
[redacted]
General Manager

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street Perth WA 6000
PO Box 3106 Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* WA_0089_PFASOMP_25	**PO Number** (to be invoiced) 12641234
Laboratory Quote No. 240523GHDW	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com [redacted]	**Email Address (Results)** GHD.LabReports@ghd.com DCARM-WA_LABREPORTS@GHD.COM DERP.LABREPORTS@ESDAT.COM.AU [redacted]

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: PFAS Full Suite standard (30 compounds)	Analyses: HOLD	Remarks
0089_QC215_250919		19/09/2025		W	Plastic	UP	2	x		
0089_QC216_250923		23/09/2025		W	Plastic	UP	2	x		
0089_QC217_250923		23/09/2025		W	Plastic	UP	2	x		
0089_QC218_250923		23/09/2025		w	Plastic	UP	2	x		

Sampled by: [redacted]	Date/Time: 23/09/2025	Relinquished by [redacted]	Date/Time: 25/09/2025
Received by: [redacted]	Date/Time: 25/9/25 1400	Relinquished by [redacted]	Date/Time: 8.1°C

1273096

www.eurofins.com.au EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Perth	Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
46-48 Banksia Road	6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Welshpool	Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
WA 6106	VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 8 6253 4444	+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	+61 7 3902 4600	+61 2 4968 8448
NATA# 2377	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 2370 & 2554	Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Sample Receipt Advice

Company name: GHD Pty Ltd WA
Contact name: - ALL GHD lab reports
Project name: Not provided
Project ID: WA_0089_PFASOMP_25
Turnaround time: 5 Day
Date/Time received Sep 25, 2025 2:00 PM
Eurofins reference 1273096

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 8.1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

[redacted] **on phone : or by email:** [redacted]**eurofinsanz.com**

Results will be delivered electronically via email to - ALL GHD lab reports - ghd.labreports@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd WA email address.

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
+61 3 8564 5000
NATA# 1261
Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
+61 3 8564 5000
NATA# 1261
Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
+61 2 9900 8400
NATA# 1261
Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
+61 2 6113 8091
NATA# 1261
Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
+61 7 3902 4600
NATA# 1261
Site# 20794 & 2780

Newcastle
1/2 Frost Drive
Mayfield West
NSW 2304
+61 2 4968 8448
NATA# 1261
Site# 25079

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name:
Project ID: WA_0089_PFASOMP_25

Order No.: 12641234
Report #: 1273096
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: Sep 25, 2025 2:00 PM
Due: Oct 3, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : [redacted]

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs) - Trace
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	0089_QC215_250919	Sep 19, 2025		Water	L25-Se0082175	X
2	0089_QC216_250923	Sep 23, 2025		Water	L25-Se0082176	X
3	0089_QC217_250923	Sep 23, 2025		Water	L25-Se0082177	X
4	0089_QC218_250923	Sep 23, 2025		Water	L25-Se0082178	X
Test Counts						4

Appendix F

Field Notes

Purging and Sampling Record

Well ID: 0089_MW010

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.810 m bTOC	**Time SWL Measured:**	04:15 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.430 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:15		19.9	7.34	4158.0	2.21	-171.5	2704.0		Clear, strong sulfuric smell, no turbidity, low sediment load,
									do :16%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW109

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.650 m bTOC	**Time SWL Measured:**	09:05 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.780 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	19/09/2026	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:10		19.7	7.27	883.0	1.75	-110.5	574.0		clear, no sheen,
									strong sulfuric odor, low turbidity, do:18.0%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW112

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.400 m bTOC	**Time SWL Measured:**	10:24 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.000 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3 to 6 m bgl			
Date:	19/09/2026	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:25		20.7	7.36	585.0	1.50	-114.5	380.5		pale yellow, no odour, no sheen,
									low sediment load, do:11.8%, low turbidity

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: magnetic lid , set of lap dup

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW120

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.985 m bTOC	**Time SWL Measured:**	08:45 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.715 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5 to 5 m bgl		
Date:	19/09/2026	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
08:48		19.0	7.36	669.0	5.89	-107.3	435.1		White, turbid, no odour, no sheen, no sediment load, do:46.7%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: can be driven to, red back spider

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW121

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.250 m bTOC	**Time SWL Measured:**	10:50 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.050 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.7 to 5.7 m bgl			
Date:	19/09/2026	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:50		19.0	7.82	432.5	5.57	-114.5	281.1		White, turbid, no sheen, slight sulfuric odour,
									do:59.9%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: magnetic lid

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW123

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	6.200 m bTOC	**Time SWL Measured:**	11:10 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.000 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	4.5 to 8 m bgl		
Date:	19/09/2026	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:15		19.6	7.25	914.0	2.00	-113.5	595.0		strong sulfuric odour, no sheen, no sediment load, cloudy, do:14.3%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW124

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.780 m bTOC	**Time SWL Measured:**	12:10 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.170 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.75 to 4 m bgl			
Date:	19/09/2026	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:10		21.2	7.21	31586.0	0.92	-205.0	20502.0		clear, low sediment load, no sheen, strong sulfuric odour, no turbidity

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC115_250919

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC215_250919

Purging and Sampling Record

Well ID: 0089_MW125

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.730 m bTOC	**Time SWL Measured:**	01:12 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.250 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.9 to 3.9 m bgl			
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
01:25		22.1	7.38	14141.0	3.20	-93.1	9192.0		clear, no turbidity, no sediment load, no sheen, sulfuric odour

Field QA Checks:		*Purge Volumes*			
Air bubbles in vials or violent reactions?		**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?		**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?					
COC updated?					

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW126

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.770 m bTOC	**Time SWL Measured:**	02:18 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.9 to 3.9 m bgl			
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:25		19.0	6.95	39413.0	3.63	-211.1	25610.0		sulfuric odour, colorless, no sediment load, no sheen, no turbidity

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW127

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.575 m bTOC	**Time SWL Measured:**	03:15 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.100 m bTOC	**Logic Check:**	
Proj. No.:	12641234	**Sample Depth:**	2.5 m bTOC	**NAPL Check:**		**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.9 to 3.9 m bgl		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:20		19.1	7.18	31851.0	1.13	-138.5	20717.0		do:13.2%, colourless, odourless, low sediment load, no sheen, no turbidity

Field QA Checks:	
Air bubbles in vials or violent reactions?	
Decontamination as per GHD procedure?	
Was sampling equipment pre-cleaned?	
COC updated?	

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW128

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.180 m bTOC	**Time SWL Measured:**	11:30 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.800 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	19/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:31		19.2	7.24	796.0	2.50	-113.5	517.0		white, turbid, low sediment load, no sheen,
									strong sulfuric odour, do:20.3%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW139

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	1.955 m bTOC	**Time SWL Measured:**	01:42 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.510 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:42	1.00	23.4	7.90	610.0	3.34	29.1	396.5		Clear, colourless, no odour, no sheen, no sediment load, (DO% 39.5)

Field QA Checks:		*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes				
COC updated?	Yes				

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC117_250923
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC217_250923

Purging and Sampling Record

Well ID: 0089_MW141

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.805 m bTOC	**Time SWL Measured:**	02:30 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.160 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:30	1.00	21.4	7.01	28810.0	0.68	-230.2	18726.5		Clear, colourless, low sediment load, sulphidic odour, no sheen (DO% 8.4)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: Lab Dup taken

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 4 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW142

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.400 m bTOC	**Time SWL Measured:**	03:00 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.750 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	0.25 to 4 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:00	1.00	14.6	6.44	42289.0	0.92	-119.3	27482.0		Clear, colourless, no sediment load, no odour, no sheen (DO: 11.6%)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW147

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	3.186 m bTOC	**Time SWL Measured:**	02:09 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.510 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	2 to 5 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:09	1.00	22.0	7.30	5267.0	1.31	-160.1	3425.5		Slightly turbid, moderate sediment load, colourless, no odour,
									no sheen (DO% 15)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC118_250923
#Primary sample containers	2	Duplicate analysis:	PFAS	Duplicate 2 ID:	0089_QC218_250923

Purging and Sampling Record

Well ID: 0089_MW149

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.150 m bTOC	**Time SWL Measured:**	02:25 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.385 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.5 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1 to 4 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:25	1.00	20.1	7.43	29807.0	0.60	-34.7	19370.0		Clear, colourless, low sediment load, no odour, no sheen (DO: 7.6%)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW161

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	16.770 m bTOC	**Time SWL Measured:**	04:15 PM
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	17.180 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	17 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	Unkown to Unkown m bgl		
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:15	0.10	21.9	7.48	4099.0	2.30	26.7	2658.0		Pale brown, slightly turbid, low sediment load, no odour,
									no sheen (DO: 26.6%)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW166

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	Purge	**SWL:**	11.375 m bTOC	**Time SWL Measured:**	04:30 PM	
Project:	PFASIM LC WA	**Sample Method:**	Bailer	**Well Depth:**	12.280 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	12 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	10 to 13 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:30	1.00		7.25	430.7	2.12	30.0	2808.0		
16:35	5.00		7.27	427.3	2.19	35.6	2782.0		Pale orange/brown, turbid, high sediment load, no odour, no sheen
16:40	10.00		7.26	425.6	1.61	37.1	2769.0		(DO 17.1%)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW171

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	28.845 m bTOC	**Time SWL Measured:**	04:55 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	31.500 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	30 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	28.5 to 31.5 m bgl			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:55	1.00	20.4	7.31	6312.0	2.40	51.0	4101.5		Pale white, cloudy/slighly turbid, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW173

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	9.601 m bTOC	**Time SWL Measured:**	01:55 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	11.341 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	10 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	18/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:55		22.9	7.06	4500.0	1.81	-96.5	2926.0		strong sulfuric smell, low sediment load, pake yellow,
									no sheen, do:21.6%, low turbidiy

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: access by foot

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW193

Job Information		Sampling Information		Monitoring Well Information					
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	11.350 m bTOC	**Time SWL Measured:**	02:13 PM		
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.500 m bTOC	**Logic Check:**	Yes		
Proj. No.:	12641234	**Sample Depth:**	11.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes		
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up		
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	10 to 13.5 m bgl				
Date:	18/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m		
Round:	September 2025	**Field Filtered?**	No						

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:25		20.4	7.28	1225.0	3.27	-99.5	1225.0		clear, low sediment load, strong sulfuric odor, no sheen,
									no turbidity, do:34.2%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: hydrasleeves found in MW079 in yellow well but blue well, which is MW193 did not have sleeves

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW195D

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.940 m bTOC	**Time SWL Measured:**	03:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.360 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	11.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	10 to 13 m bTOC			
Date:	18/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:00		18.0	7.27	24880.0	1.66	-123.9	16176.0		pale white, low sediment load, no sheen, no turbidity,
									slight sulfuric odour, do: 15.2%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: 1 set lab dup

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC114_250918

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC214_250918

Purging and Sampling Record

Well ID: 0089_MW196

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	12.400 m bTOC	**Time SWL Measured:**	03:30 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	13.480 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	13 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	18/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:40		18.6	7.75	529.0	5.20	-95.2	344.1		pale brown, strong sulfuric odour, turbid,
									no sheen, do:55.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: perimeter key opened the gates

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW199

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	11.492 m bTOC	**Time SWL Measured:**	05:15 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	17.700 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	16.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	18/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:20		19.1	7.19	19121.0	1.09	-206.5	12427.0		clear, strong sulfuric smell, no sediment load, no turbidity,
									no sheen, do:11.9%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW200

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.045 m bTOC	**Time SWL Measured:**	05:30 PM
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.630 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2.5 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	Unkown to Unkown m bgl		
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	40 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:30	0.10	14.1	7.45	6005.0	2.77	47.7	3966.5		Clear, colourless, no sediment load, no odour, no sheen. DO: 30.2%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW202

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.800 m bTOC	**Time SWL Measured:**	12:40 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.850 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	19/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:45		18.9	7.49	1425.0	1.19	-111.5	926.0		clear, low sediment load, no odour, no sheen, no turbidity, do:12.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW203

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	10.325 m bTOC	**Time SWL Measured:**	04:25 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	12.850 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	11.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:19		19.9	7.32	836.0	3.41	-80.3	544.0		White, turbid, no sheen, odourless, do:29.9%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW214

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	6.470 m bTOC	**Time SWL Measured:**	10:32 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.100 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	5.5 to 9 m bgl			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:35		17.4	7.18	2504.0	3.13	-53.5	1628.0		low sediment load, no sheen,
									do: 34.5%

Field QA Checks:		*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes				
COC updated?	Yes				

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC109_250915

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC209_250915

Purging and Sampling Record

Well ID: 0089_MW215

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.245 m bTOC	**Time SWL Measured:**	09:50 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.500 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	1.5 to 4.5 m bTOC			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:48		17.8	7.34	1468.0	3.73	-74.5	956.0		no odour, roots present, clear, no sheen,
									no turbidity, do:47.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW216

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	7.370 m bTOC	**Time SWL Measured:**	11:00 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.100 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	8.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	6 to 9 m bgl		
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:55		15.5	7.44	2187.0	2.77	-46.5	2187.0		no odour, low sediment load, no sheen, colorless, do:26.7%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 1xset lab dup

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW217

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	8.200 m bTOC	**Time SWL Measured:**	11:40 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	9.500 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	9.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	6.5 to 9.5 m bgl			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:41		18.3	7.51	838.0	5.06	-48.5	544.0		slightly turbid, low sediment load, no sheen, no odour, do:54.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW220

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	6.375 m bTOC	**Time SWL Measured:**	12:55 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.250 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	7.25 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:51		16.6	7.05	840.0	1.55	-47.5	546.0		slightly turbid, roots present, low sediment load, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW224

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	12.820 m bTOC	**Time SWL Measured:**	12:15 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	14.250 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	13.25 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	11.25 to 14.25 m bTOC			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:20		16.1	7.78	869.0	7.80	-49.5	565.0		low sediment load, slightly turbid, no sheen, no odour, colourless, do:67.2

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW225

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.625 m bTOC	**Time SWL Measured:**	09:18 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.410 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2 to 5 m bTOC			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:15		17.0	7.23	2540.0	3.59	-41.9	1651.0		No odour, no sediment load, no sheen, no turbidity.

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW226

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.580 m bTOC	**Time SWL Measured:**	12:15 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.100 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.75 to 3.8 m bgl			
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:15		18.2	7.44	18455.0	5.03	-103.5	11976.0		low sediment load, pale yellow, no sheen, no odour, no turbidity,
									do:31.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW227

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department of Defence	**Purge Method:**	No purge	**SWL:**	2.845 m bTOC	**Time SWL Measured:**	06:05 PM	
Project:	PFASIM LC WA	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.110 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	3.2 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	0089 HMAS Stirling	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**		
Sampler:	[redacted]	**Flow Cell Used?**	No	**Screened Interval From:**	1.25 to 4.2 m bTOC			
Date:	23/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
18:05	0.30	18.8	7.24	2684.0	2.53	29.0	1748.5		Pale brown, slightly turbid, low sediment load, no odour, no sheen
									(DO: 27.4%)

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW228

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	1.950 m bTOC	**Time SWL Measured:**	09:55 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	3.750 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0.35 to 3.75 m bgl		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:00		16.9	7.25	13535.0	7.82	-66.0	8798.0		low sediment load, yellow tinge, no sheen, no turbidity, do:30.7%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW233

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.575 m bTOC	**Time SWL Measured:**	03:55 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.150 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3.15 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:00		15.3	8.12	237.5	11.77	-83.5	154.8		White, turbid, low sediment load, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW236

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	3.820 m bTOC	**Time SWL Measured:**	01:35 PM	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	5.600 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC			
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:55	0.00	20.0	7.61	671.0	9.22	-92.5	435.9	3.820	Colourless, low turbidity, low sediment load, no sheen, odourless,
13:58	0.50	19.7	7.61	665.0	4.85	-92.5	4323.0	3.820	flow rate: 0.3, do:54.2%
14:01	1.00	19.7	7.61	665.0	4.88	-92.5	432.5	3.825	
14:04	1.50	19.6	7.61	666.0	4.68	-93.5	432.5	3.825	
14:07	2.00	19.6	7.60	665.0	4.64	-92.5	432.5	3.830	
14:10	2.50	19.6	7.60	666.0	4.97	-92.3	432.5	3.832	

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: no hydrasleeves found in the well - did per iand then deploy hydrasleeves with bottom weight

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC113_250917
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC213_250917

Purging and Sampling Record

Well ID: 0089_MW238

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.870 m bTOC	**Time SWL Measured:**	11:01 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.300 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	6.3 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:00		20.7	7.47	678.0	2.15	-84.5	441.0		pale yellow, low sediment load, no sheen, no odour, do:21.8%,

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW239

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	3.350 m bTOC	**Time SWL Measured:**	12:34 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	5.900 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bgl		
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:37	0.00	20.6	7.54	554.0	11.45	-88.5	360.0	3.350	clear, no odor, low sediment load, no sheen, no turbidity
12:40	0.50	20.2	7.53	547.0	2.01	-90.4	355.2	3.350	clear, no odor, low sediment load, no sheen, no turbidity
12:43	1.00	20.6	7.54	556.0	1.98	-90.5	360.5	3.350	clear, no odor, low sediment load, no sheen, no turbidity, do:15.2%
12:46	1.50	20.6	7.52	553.0	1.20	-92.5	359.5	3.350	clear, no odor, low sediment load, no sheen, no turbidity, do:13.5%
12:49	2.00	20.6	7.52	553.0	1.25	-93.5	359.5	3.380	clear, no odor, low sediment load, no sheen, no turbidity, do:13.4%
12:52	2.50	20.6	7.52	555.0	1.19	-94.5	360.7	3.400	clear, no odor, low sediment load, no sheen, no turbidity, do:12.8%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: no hydrasleeves in the well - did peri and then deployed hydrasleeves with bottom weight

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW240

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.520 m bTOC	**Time SWL Measured:**	11:24 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.000 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:25		21.7	7.47	691.0	3.95	-86.5	448.5		pale brown, low sediment load, no sheen, no odour, do::34.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: bore monitor 2

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW242

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.578 m bTOC	**Time SWL Measured:**	05:00 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	4.260 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	3.2 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:00		21.4	7.64	689.0	3.86	-93.5	447.5		pale yellow, low sediment load, no turbidity, no sheen, odourless,
									do:33.1%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: lab dup

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_MW243

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.000 m bTOC	**Time SWL Measured:**	11:37 AM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.930 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bgl		
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:46			7.56	821.0	3.19	-88.6	533.0		pale white, low sediment load, no odour, no sheen, do:34.4%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW245

Job Information		Sampling Information		Monitoring Well Information				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.500 m bTOC	**Time SWL Measured:**	01:20 PM
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.330 m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	4.4 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:20		18.1	7.42	435.6	1.60	-98.1	283.5		strong hydrocarbon odor, some orange floating particles,
									low sediment load, low turbidity, do:13.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: bore 7 in fence key with dfi

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW255

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.880 m bTOC	**Time SWL Measured:**	04:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.000 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3 to 6 m bTOC			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:05		17.8	7.46	897.0	5.02	-52.5	583.0		Colourless, low turbidity, no odour, low sediment load, no sheen, do:51.2%

Field QA Checks:		*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes				
COC updated?	Yes				

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW256

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.120 m bTOC	**Time SWL Measured:**	03:35 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.000 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3 to 5 m bTOC			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	60 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:30		18.0	7.06	1519.0	1.85	-54.6	988.0		Pale brown, slightly turbid, some roots, little odour, no sheen, do:18.7%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW257

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.100 m bTOC	**Time SWL Measured:**	02:05 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.700 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.7 to 5.7 m bgl			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:05		16.7	8.38	224.5	9.46	-56.5	146.1		clear, no turbidity, low sediment load, no sheen, do:78.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 1 set lab dup

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW258

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.370 m bTOC	**Time SWL Measured:**	02:25 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.500 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3 to 6 m bTOC			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:25		19.3	7.21	1357.0	1.85	-55.0	882.0		do:20.1%, low sediment load, no sheen, no odour, no turbidity, clear

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW259

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.140 m bTOC	**Time SWL Measured:**	02:50 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.500 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5 to 5.5 m bgl			
Date:	15/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:05		17.1	7.36	482.0	4.11	-56.6	313.4		clear, low sediment load, no sheen, no turbidity, no odour, do:40.0%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: outside fence ventia

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC110_250915

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC210_250915

Purging and Sampling Record

Well ID: 0089_MW268

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.800 m bTOC	**Time SWL Measured:**	03:50 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.700 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5 to 5.5 m bTOC			
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:58		21.5	7.21	6896.0	2.07	-91.9	4486.0		pale yellow, low sediment load, no odour, no turbidity, do:19.7%

Field QA Checks:		*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes				
COC updated?	Yes				

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW269

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.881 m bTOC	**Time SWL Measured:**	03:40 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.835 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.8 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.5 to 5.5 m bTOC			
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:40		21.1	7.40	1768.0	1.47	-93.5	1150.0		low sediment load, odourless, no turbidity, no sheen, clear, roots, do:14.2%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW282

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.100 m bTOC	**Time SWL Measured:**	10:00 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.500 m bTOC	**Logic Check:**	No	
Proj. No.:	12641234	**Sample Depth:**	6 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	No	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	4.5 to 7.5 m bgl			
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:51		18.0	7.08	993.0	4.33	-77.5	645.0		broken lid, well cap exposed, slightly turbid, low sediment load,
									no sheen, do:35.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: no hydrasleeves present due to wrong well on 15/09. Went back on 17/09 to sample and redeploy in correct well

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW288

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.740 m bTOC	**Time SWL Measured:**	05:40 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.810 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	2.25 to 5.25 m bgl			
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
17:45		19.1	7.38	968.0	3.20	-92.2	629.0		clear, low sediment load, no odour, no turbidity, no sheen, DO:28.1%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW289

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.652 m bTOC	**Time SWL Measured:**	01:30 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	6.500 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	5.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3.25 to 6.25 m bgl			
Date:	19/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:50		20.6	7.23	662.0	1.05	-113.5	430.2		clear, small black particles floating, no turbidity, no sheen,
									no odour, do:11.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment: use mallet to soften sand and rim to open well

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW468

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	2.380 m bTOC	**Time SWL Measured:**	04:25 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	2.830 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	2.8 m bTOC	**NAPL Check:**		**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	0 to 1.2 m bgl			
Date:	18/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:25		16.9	7.59	508.0	4.07	-97.5	324.5		brown orange colour, low sediment load,
									no odour, do:36.5

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes			
Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW496

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	4.610 m bTOC	**Time SWL Measured:**	03:00 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	8.810 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	7.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3.5 to 8 m bgl			
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:00		21.2	7.45	1309.0	9.95	-176.5	851.0		White, slightly turbid, slight sulfuric odor and hydrocarbon,
									no sheen, do:86%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 1set of lab dup

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW500

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.270 m bTOC	**Time SWL Measured:**	09:20 AM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.660 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3 to 6 m bgl			
Date:	19/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:10		20.5	7.28	565.0	1.61	-114.5	367.5		White, turbid, low sediment load, no sheen, do:15.0%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW516

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	5.810 m bTOC	**Time SWL Measured:**	03:15 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	7.870 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	6.7 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Stick Up	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	4.5 to 7.5 m bTOC			
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:24		21.9	7.24	1023.0	1.96	-78.5	665.0		slight hydrocarbon odour, white, turbid, low sediment load,
									no sheen, do:20.2

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_MW553

Job Information		*Sampling Information*		*Monitoring Well Information*				
Client:	Department Of Defence	**Purge Method:**	No purge	**SWL:**	3.490 m bTOC	**Time SWL Measured:**	04:30 PM	
Project:	Defence OMP	**Sample Method:**	Hydrasleeve	**Well Depth:**	5.780 m bTOC	**Logic Check:**	Yes	
Proj. No.:	12641234	**Sample Depth:**	4.5 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	Yes	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	Gatic	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	3 to 6 m bTOC			
Date:	17/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	50 mm	**Stick Up:**	m	
Round:	September 2025	**Field Filtered?**	No					

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
16:38		19.2	7.24	1192.0	1.72	-107.4	775.0		strong hydrocarbon smell, clear, low sediment load, no turbidity,
									no sheen, do:21%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW304

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:19 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	12/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:19		17.6	7.49	34360.0	11.34	-96.9	22177.0		low sediment load, no sheen, no odour, no turbidity, do:50.4%
12:21		17.4	7.44	31032.0	2.55	-73.5	30744.0		low sediment load, no sheen, no odour, no turbidity, do:29.0%
12:24		17.3	7.43	30748.0	2.46	-68.8	19959.0		low sediment load, no sheen, no odour, no turbidity, do:28.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: 1xlab qa qc set

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC107_250912

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC207_250912

Purging and Sampling Record

Well ID: 0089_PW306

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:30 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:35		14.9	7.77	52538.0	15.37	52.3	34171.0		do:183%, clear, odourless, low sediment load, no sheen
10:38		14.8	7.84	52618.0	10.78	35.1	34205.0		do:107%, clear, odourless, low sediment load, no sheen
10:41		14.7	7.85	52628.0	2.70	18.6	34228.0		do:32.4% clear, odourless, low sediment load, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW307

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:36 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:40		15.6	7.93	34349.0	14.81	76.5	34266.0		no odour, colorless, low sediment load, no sheen,do:70%
11:43		15.1	7.94	52647.0	5.52	15.0	34226.0		no odour, colorless, low sediment load, no sheen,do:66%
11:47		15.0	7.94	52636.0	5.40	34.2	34215.0		no odour, colorless, low sediment load, no sheen,do:65.7%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW308

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:30 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:34		15.1	8.04	52906.0	7.03	-186.5	34334.0		lowsediment load,no sheen, no odor, no turbidity, clear
12:37		14.8	8.05	52744.0	7.02	-188.2	34766.0		lowsediment load,no sheen, no odor, no turbidity, clear, do:84.2%
12:40		14.8	8.05	52751.0	6.84	-189.4	34287.0		lowsediment load,no sheen, no odor, no turbidity, clear, do:83.5%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW314

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:00 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:00		15.2	7.54	52959.0	3.34	53.1	34225.0		colorless, no sheen, no odor, clear, low sediment load
11:03		15.2	7.54	54403.0	2.34	54.0	34399.0		colorless, no sheen, no odor, clear, low sediment load
11:06		15.3	7.54	52885.0	2.20	52.0	34489.0		colorless, no sheen, no odor, clear, low sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW315

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:15 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:15		14.5	7.87	52658.0	6.60	60.4	34236.0		colorless, no turbidity, low sediment load, do:72.2%
11:18		14.2	7.88	52582.0	5.99	64.5	34177.0		colorless, no turbidity, low sediment load, do:71.2%
11:21		14.5	7.88	52548.0	5.87	13.5	34150.0		colorless, no turbidity, low sediment load, do:71.2%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: lab dup and matrix spike

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW316

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:00 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:08		16.5	8.02	52786.0	6.31	-164.5	34288.0		colorless, low sediment load, no sheen, no turbidity
12:11		15.0	8.02	52558.0	6.13	-161.5	34253.0		colorless, low sediment load, no sheen, no turbidity
12:13		15.0	8.00	52348.0	6.24	-161.5	34259.0		colorless, low sediment load, no sheen, no turbidity, do:75%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW329

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:22 AM
Project:	PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	23/09/2025	**WLevel Meter Type:**	-	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:22		17.5	7.71	52740.0	8.10	78.1	34151.0		
10:25		17.4	7.72	52491.0	7.66	75.4	34086.0		
10:28		17.6	7.72	52634.0	8.24	75.0	34209.0		Clear, colourless, no odour, no sheen
10:30		17.9	7.72	52456.0	7.90	75.1	34165.0		Large bubble flowing through cell (DO% 102.3)

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW330

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:10 AM
Project:	PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	23/09/2025	**WLevel Meter Type:**	-	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:10		18.5	7.62	53278.0	3.23	69.8	34911.5		DO% 42.2
11:13		18.5	7.58	54180.0	2.77	68.9	35210.5		DO% 36.5
11:16		18.7	7.60	53782.0	3.07	68.4	34950.0		DO% 40.9
									Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW331

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:10 PM
Project:	PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	23/09/2025	**WLevel Meter Type:**	-	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:10		17.0	7.37	53195.0	0.20	-308.0	34586.0		DO% 2.5
12:13		17.1	7.35	53239.0	0.10	-315.1	34606.0		DO% 1.3
12:16		17.1	7.35	53216.0	0.08	-317.2	34593.5		DO% 1.0
									Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment: Lab Dup collected

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 4 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW335

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:55 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	- mm	**Stick Up:**	- m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:53		14.0	7.69	50531.0	8.56	-126.0	32829.0		do:96.0%, clear, odourless, no sheen,low sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW340

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:42 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:42		13.6	7.71	50052.0	7.62	-35.5	32488.0		no sheen, little odour, clear, low sediment load, do:10.5%
11:45		13.6	7.72	49928.0	1.15	-32.5	32406.0		no sheen, little odour, clear, low sediment load, do:10.5%
11:48		13.6	7.71	49717.0	0.41	-32.0	32405.0		no sheen, little odour, clear, low sediment load, do:10.5%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW341

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	02:10 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:10		13.8	7.70	51473.0	0.24	-26.8	33439.0		do:2.0%, colorless, sulfuric odour, no turbidity, no sheen
14:13		13.7	7.70	51307.0	0.19	-28.7	33275.0		do:2.0%, colorless, sulfuric odour, no turbidity, no sheen
14:16		13.8	7.69	51662.0	0.18	-29.1	33250.0		do:2.2%, colorless, sulfuric odour, no turbidity, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW345

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:15 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	12/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:15		15.0	7.56	51870.0	2.18	-147.5	33727.0		low sediment load, no turbidity, no sheen, no color, no odor,do:20.1%
10:18		15.0	7.52	51699.0	1.22	-136.0	33699.0		low sediment load, no turbidity, no sheen, no color, no odor,do:14.7%
10:21		15.0	7.52	51663.0	1.15	-134.4	33653.0		low sediment load, no turbidity, no sheen, no color, no odor,do:14.0%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW346

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	02:30 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	12/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:30		17.3	7.61	11666.0	3.02	-80.2	7423.0		low sediment load, no sheen, no turbidity, colorless, do:27.9%
14:33		17.1	7.60	10505.0	2.12	-70.9	6835.0		low sediment load, no sheen, no turbidity, colorless, do:22.9%
14:37		17.5	7.59	10486.0	2.00	-69.7	6823.0		low sediment load, no sheen, no turbidity, colorless, do: 21.9%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW350

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:45 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:46		17.0	7.99	53081.0	4.42	56.2	34511.0		odorless, coloorless, low sediment load, no turbidity

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW351

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:55AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:55		17.8	7.96	52980.0	5.94	-131.5	34453.0		no sheen, colorless, clear, low sediment load, odorless

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW352

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	01:30 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:30		16.7	8.05	52858.0	6.45	51.0	34410.0		colorless, clear, low sediment load, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW356

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:42 PM
Project:	PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	23/09/2025	**WLevel Meter Type:**	-	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:42		17.7	7.50	53326.0	0.50	-199.6	34680.0		DO% 4.0
12:45		17.6	7.48	53231.0	0.14	-200.5	34593.0		DO% 2.5
12:48		17.6	7.47	53192.0	0.15	-203.4	34573.8		DO% 2.0
									Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW357

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:42 AM
Project:	PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	23/09/2025	**WLevel Meter Type:**	-	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:42		16.9	7.68	53305.0	4.88	70.6	34651.5		DO% 62
11:45		16.8	7.67	53250.0	4.34	69.3	34599.0		DO% 55.3
11:48		16.8	7.67	53208.0	4.26	70.3	34586.5		DO% 54.1
									Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW358

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:50 AM
Project:	PFASIM LC WA	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	23/09/2025	**WLevel Meter Type:**	-	**Well Diameter:**	- mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:50		17.6	7.63	51422.0	1.48	56.6	33429.0		DO% 18.9
10:53		17.6	7.62	51470.0	1.58	57.9	33462.0		DO% 20.39
		17.7	7.61	51532.0	1.80	58.5	33494.0		DO% 23.2
									Clear, colourless, no odour, no sheen

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW362

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	01:50 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:45		14.4	7.72	52242.0	3.99	-26.6	33928.0		odorless, low sediment load, no sheen, no turbidity, clear
13:48		14.3	7.73	52153.0	1.92	-21.4	33896.0		odorless, low sediment load, no sheen, no turbidity, clear
13:51		14.3	7.73	52125.0	1.33	-27.6	33880.0		odorless, low sediment load, no sheen, no turbidity, clear

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW363

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	02:45 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:51		14.8	7.77	50377.0	0.91	-78.5	32747.0		do:9.7%, colorless, odorless, low sediment load, no sheen
14:53		14.4	7.74	50380.0	0.62	-77.7	32753.0		do:9.3%, colorless, odorless, low sediment load,no sheen
14:56		14.8	7.70	50590.0	0.50	-75.2	32945.0		do:5.8%, colorless, odorless, low sediment load, no sheen

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC102_250909

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC202_250909

Purging and Sampling Record

Well ID: 0089_PW364

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	11:20 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	- to - m bTOC		
Date:	09/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	- mm	**Stick Up:**	- m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:24		13.6	7.60	50758.0	0.95	-16.5	32958.0		do:11.8%, colorless,odorless , clear, no sheen, low sediment load
11:27		13.6	7.74	50402.0	0.52	-12.1	32727.0		do:6.3%, colorless, odorless, clear, no sheen, low sediment load
11:30		13.7	7.75	50250.0	0.54	-7.0	32668.0		do:6.3%, colorless, odorless, clear, no sheen, low sediment load

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW367

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	09:50 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	12/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
09:50		16.7	7.07	46636.0	6.54	-186.2	30575.0		low sediment load, no turbidity, no sheen, no color , no odor, do:36.6%
09:53		16.4	7.07	47495.0	6.01	-224.7	30909.0		low sediment load, no turbidity, no sheen, no color , no odor, do:86.1%
09:56		16.4	7.05	47593.0	3.90	-227.0	30916.0		low sediment load, no turbidity, no sheen, no color , no odor, do:86.1%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	Yes	Duplicate 1 ID:	0089_QC106_250912
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	0089_QC206_250912

Purging and Sampling Record

Well ID: 0089_PW368

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	01:10 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	12/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:15		17.7	7.50	31591.0	2.15	-57.5	20673.0		low sediment load, no sheen, no color, odorless do:25.6%
13:18		17.7	7.49	32401.0	2.02	-55.7	21055.0		low sediment load, no sheen, no color, odorless do:23.6%
13:21		17.7	7.49	31919.0	1.94	-53.3	20757.0		low sediment load, no sheen, no color, odorless do:22.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW369

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:35 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	12/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:35		15.5	7.11	52222.0	5.48	-228.5	33919.0		low sediment load, no sheen, no color, no odor, no turbidity. do:18.7%
10:38		15.5	7.09	52026.0	1.59	-223.5	33826.0		low sediment load, no sheen, no color, no odor, no turbidity. do:18.7%
10:41		15.4	7.80	5243026.0	1.52	-222.5	33828.0		low sediment load, no sheen, no color, no odor, no turbidity. do:18.8%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW374

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	02:15 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:08		16.2	7.75	47991.0	8.40	-88.5	31205.0		no color, no turbidity, low sediment load, no odor, do:70.3%
14:12		16.2	7.75	48101.0	5.68	-86.5	31315.0		no color, no turbidity, low sediment load, no odor, do:70.8%
14:15		16.2	7.75	48370.0	5.72	48381.0	31448.0		no color, no turbidity, low sediment load, no odor, do:70.8%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW375

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	01:50 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:50		17.0	7.81	52035.0	6.54	-78.5	33798.0		low sediment load, clear, no sheen, no turbidity, do:77.6%
13:53		16.7	7.79	51998.0	6.05	-81.5	33771.0		low sediment load, clear, no sheen, no turbidity, do:75.6%
13:56		16.4	7.79	33765.0	5.96	-81.2	33757.0		low sediment load, clear, no sheen, no turbidity, do:75.8%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW378

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	01:30 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:35		18.1	7.77	50385.0	7.02	-75.2	33156.0		low sediment load, no sheen, odorless, no turbidity, do:73.2%
13:38		17.5	7.79	51019.0	5.59	-76.0	33151.0		low sediment load, no sheen, odorless, no turbidity, do:70.5%
13:41		17.5	7.80	50936.0	5.48	-76.5	33901.0		low sediment load, no sheen, odorless, no turbidity, do:69.3%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW380

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:03 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:05		17.5	8.03	53282.0	6.28	39.7	35609.0		do:78.5%, clear odorless low sediment load, no sheen, no turbidity

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW381

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	01:20 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
13:20		17.3	8.02	52857.0	5.40	41.0	34504.0		colorless, low sediment load, odorless, do 56.6%

Field QA Checks:		*Purge Volumes*			
Air bubbles in vials or violent reactions?	No	**Casing Int. Dia (mm)**	**50**	**100**	**150**
Decontamination as per GHD procedure?	Yes	**Vol (L/m of casing)**	**2.0**	**7.9**	**17.7**
Was sampling equipment pre-cleaned?	Yes				
COC updated?	Yes				

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW401

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:15 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	11/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
12:18		16.8	8.03	52428.0	5.95	51.4	34127.0		no sheen, colorless, clear, low sediment load, odorless

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW405

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:10		15.2	7.63	49998.0	0.72	-84.6	32445.0		clear, low sediment load, no sheen no turbidity, do:7.4%
10:13		15.2	7.64	49174.0	0.61	-89.3	31882.0		clear, low sediment load, no sheen no turbidity
10:16		15.0	7.65	48845.0	0.54	-88.6	31666.0		clear, low sediment load, no sheen no turbidity, do:15.7%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW407

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	10:30 AM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
10:25		14.8	7.75	45250.0	3.67	-69.0	29163.0		clear, low sediment load, no sheen no odour, do:30.6%
10:28		15.0	7.72	44082.0	3.32	-69.5	28662.0		clear, low sediment load, no sheen no odour, do:33.6%
10:31		15.0	7.71	43890.0	2.47	-69.3	28444.0		clear, low sediment load, no sheen no odour, do:28.6%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? Yes — Duplicate 1 ID: 0089_QC112_250916

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID: 0089_QC212_250916

Purging and Sampling Record

Well ID: 0089_PW409

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	12:00 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	16/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
11:55		16.5	7.83	52456.0	2.94	-131.1	34077.0		clear, low sediment load, no turbidity, no sheen, do: 15.8%
11:58		15.8	7.71	52273.0	0.64	-125.8	33970.0		clear, low sediment load, no turbidity, no sheen, do: 15.8%
12:01		15.8	7.69	52662.0	0.54	-127.8	33998.0		clear, low sediment load, no turbidity, no sheen, do: 6.8%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW411

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	02:30 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:35		15.3	7.80	52772.0	12.34	-172.5	34318.0		no color, no odor, low sediment load, no sheen, do:98.5%
14:38		14.8	7.79	52721.0	4.86	-173.5	34274.0		no color, no odor, low sediment load, no sheen, do:48.5%
14:41		14.7	7.78	52715.0	2.78	-180.3	34257.0		no color, no odor, low sediment load, no sheen, do:34.5%

Field QA Checks:	
Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

Comment:

Sample Summary

Samples collected? Yes — Duplicate collected? No — Duplicate 1 ID:

#Primary sample containers 2 — Duplicate analysis: — Duplicate 2 ID:

Purging and Sampling Record

Well ID: 0089_PW413

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	02:55 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
14:58		15.0	7.74	52851.0	1.51	-176.7	34348.0		no color, clear, no sediment load, no sheen, do:12.5%
15:01		14.9	7.45	52847.0	0.97	-169.0	34353.0		no color, clear, no sediment load, no sheen, do:12.5%
15:04		14.9	7.75	52847.0	0.92	-173.5	34348.0		no color, clear, no sediment load, no sheen, do:12.5%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

Purging and Sampling Record

Well ID: 0089_PW415

Job Information		*Sampling Information*		*Monitoring Well Information*			
Client:	Department Of Defence	**Purge Method:**	Low flow	**SWL:**	0.000 m bTOC	**Time SWL Measured:**	03:15 PM
Project:	Defence OMP	**Sample Method:**	Peri pump	**Well Depth:**	- m bTOC	**Logic Check:**	Yes
Proj. No.:	12641234	**Sample Depth:**	1 m bTOC	**NAPL Check:**	Absent	**Well Cap Secure?**	
Site:	HMAS Stirling 0089	**WQuality Meter Type:**	YSI Pro	**NAPL Depth:**	- m bTOC	**Gatic or Stick Up?**	
Sampler:	[redacted]	**Flow Cell Used?**	Yes	**Screened Interval From:**	to m bTOC		
Date:	10/09/2025	**WLevel Meter Type:**	Interface Probe	**Well Diameter:**	mm	**Stick Up:**	m
Round:	September 2025	**Field Filtered?**	No				

Time (hh:mm)	Volume (L)	Temp (°C)	pH (pH units)	Elec.Cond (µs/cm)	Dis.Oxygen (mg/L)	Ox-Red Pt. (± mV)	TDS (mg/L)	SWL (m bTOC)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*+/- 0.2 °C*	*+/- 0.05 pH*	*+/- 3%*	*+/- 10%*	*+/- 10 mV*		*stable*	
15:23		14.5	7.72	52689.0	2.17	-168.5	34253.0		no odor low sediment load, no sheen, no turbidity, do:24.6%
15:26		14.7	7.71	52694.0	1.81	-181.5	34252.0		no odor low sediment load, no sheen, no turbidity
15:29		14.5	7.71	52707.0	1.73	-177.5	34353.0		no odor low sediment load, no sheen, no turbidity, do:18.7%

Field QA Checks:

Air bubbles in vials or violent reactions?	No
Decontamination as per GHD procedure?	Yes
Was sampling equipment pre-cleaned?	Yes
COC updated?	Yes

Purge Volumes

Casing Int. Dia (mm)	**50**	**100**	**150**
Vol (L/m of casing)	**2.0**	**7.9**	**17.7**

Comment:

Sample Summary

Samples collected?	Yes	Duplicate collected?	No	Duplicate 1 ID:	
#Primary sample containers	2	Duplicate analysis:		Duplicate 2 ID:	

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD304
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 12:22:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light grey, saturated, medium to fine grain

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD304_250912	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD306
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 10:35:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey, sand, medium to coarse grain, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD306_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD307
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 11:34:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown, sand, medium to fine grain, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD307_250910	1			
	1	0089_QC203_250910		
	1	0089_QC103_250910		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD308
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 12:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	medium grain, light brown, sand, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD308_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD314
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 11:00:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown, sand, medium to fine grain, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD314_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD316
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 12:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown, sand, medium to fine grain, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD316_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	0089_SD330
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 11:16:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** - **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shrubs and seaweed at shoreline
SLOPE	
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	-
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	-
DO (mg/L)	-
DO (%S)	-
CONDUCTIVITY (µS/cm)	-
pH (pH units)	-
REDOX (mV)	-
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	some small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD330_250923	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD335
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 12:35:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	medium to fine sand, white to light brown, subangular to subrounded grain, poorly graded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD335_250909	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD340
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 11:50:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey, medium to fine sand,subangular to subrounded grain, poorly graded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD340_250909	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD341
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 2:10:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey, grey, medium to fine sand,subangular to subrounded grain, poorly graded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD341_250909	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD345
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 10:10:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light grey, saturated, medium to fine grain,

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD345_250912	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD346
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 2:35:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD346 _250912	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD350
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 12:50:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	sand, light brow, medium to fine grain, seashells fragments, subrounded, moist

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD350_250911	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD351
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 11:30:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	sand, grey to lightbrown, medium to coarse, moist, subrounded, some shell fragments

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD451_250911	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD352
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 1:29:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	sand, light brown, medium to fine, subrounded, seashells fragments

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD352_250911	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	0089_SD356
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 12:48:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** - **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shrubs and seaweed at shoreline
SLOPE	
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	-
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	-
DO (mg/L)	-
DO (%S)	-
CONDUCTIVITY (µS/cm)	-
pH (pH units)	-
REDOX (mV)	-
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	some small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD356_250923	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	0089_SD357
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 11:48:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** - **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shrubs and seaweed at shoreline
SLOPE	
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	-
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	-
DO (mg/L)	-
DO (%S)	-
CONDUCTIVITY (µS/cm)	-
pH (pH units)	-
REDOX (mV)	-
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	some small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD357_250923	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	0089_SD358
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 10:56:00 AM
SITE:		**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear and fine
VEGETATION	beach shrubs
SLOPE	slight gradient east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fne shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD358_250923	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD362
CLIENT:	Department of Defence	**DATE:**	9/09/2022 **TIME:** 1:55:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey, medium to fine sand,subangular to subrounded grain, poorly graded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD362_250909	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD364
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 11:25:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	medium to fine sand, white to light brown, subangular to subrounded grain, poorly graded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD364_250909	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD367
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 9:50:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	lightgrey, medium to fine sand

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_ SD345_250912	1			
	1	0089_QC105_250912		
	1	0089_QC205_250912		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD368
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 1:15:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light grey, medium to fine sand, seaweed traces

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD368_250912	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD369
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 10:35:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	decaying seaweed in profile
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light grey with decaying seaweed, medium to fine sand, abundant of organic matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD369_250912	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD375
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 2:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny, quite warm
VEGETATION	beach, dried algae present along the beach
SLOPE	almost no gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown medium coarse sand saturated, poorly graded, seashells fragment, subrounded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD375_250916	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD378
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 12:00:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny, quite warm
VEGETATION	beach, dried algae present along the beach
SLOPE	almost no gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	medium sand, light brown, medium to fine sand, poorly graded, seashells fragment, subrounded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD378_250916	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD380
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 12:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	sand, light brown, medium to fine, moist, subrounded, some shell fragments

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD380_250911	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD381
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 1:15:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	sand, light brown, medium grain, saturated, subrounded, seashell fragments

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD381_250911	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD383
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 11:50:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westernly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.2
DO (mg/L)	4.73
DO (%S)	62.90
CONDUCTIVITY (µS/cm)	52762.0
pH (pH units)	8.07
REDOX (mV)	-23.0
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW383_250911	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD405
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 10:08:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny, quite warm
VEGETATION	soft beach, some vegetation
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey, medium to fine grain, poorly graded, subrounded, saturated, some shell fragments

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SD405_250916	1			
	1	0089_QC111_250916		
	1	0089_QC211_250916		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD407
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:**
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny, quite warm
VEGETATION	soft beach, some vegetation
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey and light brown sand, mediumto fine sand, poorly graded, subrounded, saturated, some shell fragments, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD407_250916	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD409
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 11:55:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny, quite warm
VEGETATION	soft beach, some vegetation
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey sand, medium to fine sand, poorly graded, subrounded, saturated, some shell fragments, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD409_250916	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD411
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 2:40:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown, sand, medium to fine grain, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD411_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD413
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 3:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	grey, sand, medium to fine grain, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD413_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD315
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 3:15:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown, medium to fine grain, sand, subangular to subrounded, moist, poorly graded

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD315_250910	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW130
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	9/09/250 **TIME:** 12:02:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	high sediment load, clear, colorless,high organic matter content (seaweed)
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.8
DO (mg/L)	5.39
DO (%S)	71.60
CONDUCTIVITY (µS/cm)	52737.0
pH (pH units)	8.10
REDOX (mV)	9.6
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW130_250909	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW132
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 12:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	colorless, no sheen, no turbidity, low sediment load
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.3
DO (mg/L)	5.45
DO (%S)	7.10
CONDUCTIVITY (µS/cm)	51924.0
pH (pH units)	8.13
REDOX (mV)	6.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW132_250909	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW134
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 2:40:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	**SURFACE WATER:**	grab	**SEDIMENT:**
DETAILED SAMPLE LOCATION DESCRIPTION	SW from ocean		

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.1
DO (mg/L)	7.60
DO (%S)	98.90
CONDUCTIVITY (µS/cm)	52523.0
pH (pH units)	8.19
REDOX (mV)	-17.2
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW134_250909	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW150
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	0089_SD331
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:**
SITE:		**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shurbs
SLOPE	slight gradient east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, moderate sediment load, no odour, no sheen
SEDIMENT (describe as soil)	SAND, pale grey/yellow, poorly graded, fine to medium, subrounded, moist

FIELD MEASUREMENTS

TEMPERATURE (°C)	22.1
DO (mg/L)	4.82
DO (%S)	67.50
CONDUCTIVITY (µS/cm)	53228.0
pH (pH units)	8.12
REDOX (mV)	-105.1
TURBIDITY (NTU)	34580.00

HYDROLOGICAL DATA

FLOW MEASUREMENT	small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW150_250923	2			
0089_SD331_250923	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW152
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 11:55:00 AM
SITE:		**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shrubs
SLOPE	gentle gradient sloping east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, moderate sediment load, no odour, no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	23.4
DO (mg/L)	4.53
DO (%S)	65.10
CONDUCTIVITY (µS/cm)	53443.0
pH (pH units)	8.11
REDOX (mV)	69.7
TURBIDITY (NTU)	34710 TDS mg/L

HYDROLOGICAL DATA

FLOW MEASUREMENT	small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW152_250923	4			lab dub collected

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW154
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 11:24:00 AM
SITE:		**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shrubs
SLOPE	slight gradient east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, colourless, moderate sediment load, some organic matter (seaweed) no odour, no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	22.5
DO (mg/L)	4.16
DO (%S)	60.20
CONDUCTIVITY (µS/cm)	53338.0
pH (pH units)	8.10
REDOX (mV)	76.2
TURBIDITY (NTU)	34645.0 (TDS mg/L)

HYDROLOGICAL DATA

FLOW MEASUREMENT	small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW154_250923	2	0089_QC116_250923	PFAS	
		0089_QC216_250923		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW156
PROJECT NAME:	Stirling PFAS OMP	**SEDIMENT ID:**	0089_SD329
CLIENT:	Department of Defence	**DATE:**	23/09/2025 **TIME:** 10:28:00 AM
SITE:		**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** Grab **SEDIMENT:** Grab

DETAILED SAMPLE LOCATION DESCRIPTION

ENVIRONMENTAL OBSERVATIONS

WEATHER	clear, fine
VEGETATION	beach shrubs and seaweed at shoreline
SLOPE	slight gradient east
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	Clear, colourless, moderate sediment load, some organic matter (seaweed), no odour, no sheen
SEDIMENT (describe as soil)	SAND, pale yellow/grey, poorly graded, med to coarse, subrounded, moist, fine shell matter

FIELD MEASUREMENTS

TEMPERATURE (°C)	21.1
DO (mg/L)	4.84
DO (%S)	67.10
CONDUCTIVITY (µS/cm)	53205.0
pH (pH units)	8.00
REDOX (mV)	72.8
TURBIDITY (NTU)	34586.5 (TDS mg/L)

HYDROLOGICAL DATA

FLOW MEASUREMENT	some small waves <20cm
CROSS SECTION WIDTH (m)	
DEPTH (m)	
OTHER	

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD329_250923	1			
0089_SW156_250923	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW305
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 12:46:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	high sediment load, abundant organic matter, (seaweed), clear, no sheen,no odor, no color
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	21.4
DO (mg/L)	4.88
DO (%S)	66.30
CONDUCTIVITY (µS/cm)	49802.0
pH (pH units)	7.93
REDOX (mV)	10.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW305_250912	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW309
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 10:45:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, low sediment load, no organic matter, no sheen, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	16.5
DO (mg/L)	6.95
DO (%S)	85.20
CONDUCTIVITY (µS/cm)	34025.0
pH (pH units)	8.16
REDOX (mV)	43.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW309_250910	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW310
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 11:45:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, low sediment load, no organic matter, no sheen, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.0
DO (mg/L)	5.67
DO (%S)	74.20
CONDUCTIVITY (µS/cm)	53489.0
pH (pH units)	8.09
REDOX (mV)	-157.9
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW310_250910	2			
	1	0089_QC104_250910		
	1	0089_QC204_250910		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW311
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 12:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, odorless, low sediment loa, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.5
DO (mg/L)	14.77
DO (%S)	194.60
CONDUCTIVITY (µS/cm)	51835.0
pH (pH units)	8.12
REDOX (mV)	-182.7
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW311_250910	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW317
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 1:40:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	beach, some bushes, dried seaweed along the beach
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, no odour, no turbidity, low sediment load, no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.5
DO (mg/L)	5.98
DO (%S)	79.80
CONDUCTIVITY (µS/cm)	50290.0
pH (pH units)	8.18
REDOX (mV)	-76.5
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW317_250916	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW318
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 2:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	**SURFACE WATER:**	grab	**SEDIMENT:**
DETAILED SAMPLE LOCATION DESCRIPTION	SW from ocean		

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	beach, some bushes, dried seaweed along the beach
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	low sediment, no turbidity, no sheen, no odor
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.7
DO (mg/L)	5.92
DO (%S)	78.30
CONDUCTIVITY (µS/cm)	50337.0
pH (pH units)	8.12
REDOX (mV)	-84.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW318_250916	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW319
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 2:15:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	beach, some bushes, dried seaweed along the beach
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, low sediment load, no turbidity, no sheen, odorless
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.0
DO (mg/L)	5.99
DO (%S)	76.60
CONDUCTIVITY (µS/cm)	50762.0
pH (pH units)	8.11
REDOX (mV)	-84.3
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW319_250916	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW353
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 12:50:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	low turbiditym low sediment load, no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.1
DO (mg/L)	4.98
DO (%S)	65.10
CONDUCTIVITY (µS/cm)	52858.0
pH (pH units)	8.10
REDOX (mV)	56.9
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW353_250911	2			
0089_SW353_250911	2	lab dup		
0089_SW353_250911	2	matrix spike		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD363
CLIENT:	Department of Defence	**DATE:**	9/09/2025 **TIME:** 3:00:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, 20 degrees maximum, not windy
VEGETATION	dried algae present, small shrubs in the back of the beach of sand
SLOPE	gentle gradient (10% maximum)
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	greysand medium to fine

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD363_250909	1			
	1	0089_QC101_250909	duplicate	
	1	0089_QC201_250909	split	

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW370
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 10:25:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, low sediment load, no turbidity, colorless, odorless, no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	21.0
DO (mg/L)	7.50
DO (%S)	83.20
CONDUCTIVITY (µS/cm)	51061.0
pH (pH units)	8.10
REDOX (mV)	12.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW370_250912	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW371
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 1:05:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	no olor, no odor,low sediment load , abundance of organic matter.
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	22.0
DO (mg/L)	6.15
DO (%S)	84.50
CONDUCTIVITY (µS/cm)	50039.0
pH (pH units)	7.90
REDOX (mV)	13.7
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW371_250912	2			
0089_SW371_250912	2	0089_QC108 _250912		
0089_SW371_250912	2	0089_QC208_250912		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW372
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 12:50:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	no sheen, low sediment load, high sediment load,abundant organic matter (seaweed), no color, no odor
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	21.2
DO (mg/L)	5.06
DO (%S)	69.30
CONDUCTIVITY (µS/cm)	49991.0
pH (pH units)	7.94
REDOX (mV)	11.6
TURBIDITY (NTU)	.

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW372_250912	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW373
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	12/09/2025 **TIME:** 12:55:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	seaweed present
SLOPE	none
EROSION	-

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	no color, low sediment load, no sheen, colorless, abundant organic matter
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	21.4
DO (mg/L)	4.72
DO (%S)	64.00
CONDUCTIVITY (µS/cm)	49678.0
pH (pH units)	7.91
REDOX (mV)	12.7
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW373_250912	2			
0089_SW373_250912	2	1 X set if lab qa qc		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD374
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:**
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	sunny, quite warm
VEGETATION	beach, dried algae present along the beach
SLOPE	almost no gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	light brown, medium to fine sand, poorly graded, seashells fragment, subrounded, saturated

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD374_250916	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW382
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 1:09:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westernly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	odorless, low sediment load, no sheen, clear, colorless
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.6
DO (mg/L)	21.03
DO (%S)	250.30
CONDUCTIVITY (µS/cm)	53448.0
pH (pH units)	8.10
REDOX (mV)	-63.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW382_250911	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW384
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 12:27:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	colorless, no turbidity, low sediment load,no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	18.2
DO (mg/L)	5.80
DO (%S)	74.50
CONDUCTIVITY (µS/cm)	52631.0
pH (pH units)	8.11
REDOX (mV)	52.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW384_250911	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW406
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 10:20:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	rainy, bit cold
VEGETATION	beach, dried algae present along the beach
SLOPE	almost no gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear ,low sediment load, no sheen, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	14.8
DO (mg/L)	6.08
DO (%S)	72.50
CONDUCTIVITY (µS/cm)	51517.0
pH (pH units)	8.11
REDOX (mV)	-67.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW406_250916	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW408
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 11:00:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	beach, some bushes, dried algae present along the beach
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, low sediment load, no sheen, no turbidity, no odour
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	14.9
DO (mg/L)	5.73
DO (%S)	69.40
CONDUCTIVITY (µS/cm)	50966.0
pH (pH units)	8.10
REDOX (mV)	-66.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW408_250916	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW410
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	16/09/2025 **TIME:** 11:50:00 AM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]
COORDINATES/GPS *(if applicable)*			
SAMPLING METHOD *(ie grab, bucket)*	**SURFACE WATER:**	grab	**SEDIMENT:**
DETAILED SAMPLE LOCATION DESCRIPTION	SW from ocean		

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine
VEGETATION	beach, some bushes, dried seaweed along the beach
SLOPE	gentle gradient
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, no turbidity, low sediment load, no sheen
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	17.7
DO (mg/L)	12.16
DO (%S)	123.50
CONDUCTIVITY (µS/cm)	52081.0
pH (pH units)	8.06
REDOX (mV)	-76.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW410_250916	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW412
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 2:55:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, odorless, low sediment loa, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.6
DO (mg/L)	5.93
DO (%S)	79.10
CONDUCTIVITY (µS/cm)	52880.0
pH (pH units)	8.18
REDOX (mV)	-171.5
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW412_250910	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW414
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 3:15:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** grab **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, odorless, low sediment loa, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	19.9
DO (mg/L)	5.74
DO (%S)	77.00
CONDUCTIVITY (µS/cm)	52605.0
pH (pH units)	8.14
REDOX (mV)	-173.5
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SW412_250910	2			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	0089_SW416
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	
CLIENT:	Department of Defence	**DATE:**	10/09/2025 **TIME:** 3:30:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:**

DETAILED SAMPLE LOCATION DESCRIPTION SW from ocean

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny, no wind
VEGETATION	dried algae in some locations
SLOPE	steep slope from car park space but gentle slope on the beach
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	clear, low sediment load,no sheen, no turbidity
SEDIMENT (describe as soil)	

FIELD MEASUREMENTS

TEMPERATURE (°C)	20.3
DO (mg/L)	5.13
DO (%S)	68.00
CONDUCTIVITY (µS/cm)	34005.0
pH (pH units)	8.13
REDOX (mV)	-168.8
TURBIDITY (NTU)	-

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	NO. CONTAINERS	DUPLICATE ID (*if applicable*)	DUPLICATE ANALYSIS (*if applicable*)	COMMENT
0089_SW416_250910	2			
0089_SW416_250910	2	1 x lab dup		

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

SURFACE WATER AND SEDIMENT SAMPLING RECORD

PROJECT NO.:	12641234	**SURFACE WATER ID:**	
PROJECT NAME:	Defence OMP	**SEDIMENT ID:**	0089_SD401
CLIENT:	Department of Defence	**DATE:**	11/09/2025 **TIME:** 12:18:00 PM
SITE:	HMAS Stirling	**LOGGED BY:**	[redacted]

COORDINATES/GPS *(if applicable)*

SAMPLING METHOD *(ie grab, bucket)* **SURFACE WATER:** **SEDIMENT:** grab

DETAILED SAMPLE LOCATION DESCRIPTION SD from base of PW hole

ENVIRONMENTAL OBSERVATIONS

WEATHER	fine, sunny
VEGETATION	beach, some bushes on dunes behind the beach
SLOPE	westerly slope
EROSION	

DESCRIPTIONS

SURFACE WATER (colour, turbidity, odour, sheen)	
SEDIMENT (describe as soil)	sand, light brown, medium to fine, seashell fragments, subrounded, moist

FIELD MEASUREMENTS

TEMPERATURE (°C)	
DO (mg/L)	
DO (%S)	
CONDUCTIVITY (µS/cm)	
pH (pH units)	
REDOX (mV)	
TURBIDITY (NTU)	

HYDROLOGICAL DATA

FLOW MEASUREMENT	N/A
CROSS SECTION WIDTH (m)	N/A
DEPTH (m)	N/A
OTHER	N/A

SAMPLE INFORMATION

SAMPLE ID (*one primary sample per row*)	**NO. CONTAINERS**	**DUPLICATE ID** (*if applicable*)	**DUPLICATE ANALYSIS** (*if applicable*)	**COMMENT**
0089_SD401_250911	1			

OTHER COMMENTS FOR CONSIDERATION
(e.g. health and safety, access issues, change in location, general observation, notes for future):

DCMM (Annex L) sample naming convention:
Blind duplicate: **PPPP_QC1XX_YYMMDD**
Split duplicate: **PPPP_QC2XX_YYMMDD**
(XX being a consecutive number, independent of matrix type)
See GHD Data Management Plan or DCMM document for further details.

0089 Shirling #TAS Sept 2025

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DCARM QC Duplicate Sample Register Form

Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
9/9/25	0089_SD363_250909	0089_QC101_250909	0089_QC201_250909	2	[redacted]
9/9/25	0089_PW363_250909	0089_QC102_250909	0089_QC202_250909	4	
10/9/25	0089_SD307_250910	0089_QC103_250910	0089_QC203_250910	2	
10/9/25	0089_SW310_250910	0089_QC104_250910	0089_QC204_250910	4	
12/9/25	0089_SD367_250912	0089_QC105_250912	0089_QC205_250912	2	
12/9/25	0089_PW367_250912	0089_QC106_250912	0089_QC206_250912	4	
12/9/25	0089_PW304_250912	0089_QC107_250912	0089_QC207_250912	4	
12/9/25	0089_SW371_250912	0089_QC108_250912	0089_QC208_250912	4	
15/9/25	0089_MW214_250915	0089_QC109_250915	0089_QC209_250915	4	
15/9/25	0089_MW259_250915	0089_QC110_250915	0089_QC210_250915	4	
16/9/25	0089_SD405_250916	0089_QC111_250916	0089_QC211_250916	2	
16/9/25	0089_PW407_250916	0089_QC112_250916	0089_QC212_250916	4	
17/09/25	0089_MW236_250917	0089_QC113_250917	0089_QC213_250917	4	
18/09/25	0089_MW195D_250918	0089_QC114_250918	0089_QC214_250918	4	

Please put these into the 'QA sample name(s)' section of PLog in a single line (e.g. PPPP_QC1XX_YYMMDD, PPPP_QC2XX_YYMMDD).

19/09/25 | 0089_MW124_250919 | 0089_QC115_250918 | 0089_QC215_250919 | 4

DCMM (Annex L) sample naming convention:
Rinsate: **PPPP_QC3XX_YYMMDD**
Field blank: **PPPP_QC4XX_YYMMDD**
Trip blank: **PPPP_QC5XX_YYMMDD**
See GHD Data Management Plan or DCMM document for further details.

0089_ HMAS Stirling. Sept 2025

Australian Government
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DCARM QA Blank Sample Register Form

Date/Time	QA Blank Sample ID	Type (circle)	Notes *(Rinsate taken off, field blank location etc.)*	Containers	Initials
9/9/25	0089_QC301_250909	(RB) FB TB	from shovel.	2	[redacted]
9/9/25	0089_QC401_250909	RB (FB) TB	end of day	2	
10/9/25	0089_QC302_250910	(RB) FB TB	from shovel	2	
10/9/25	0089_QC402_250910	RB (FB) TB	taken end of day	2	
11/9/25	0089_QC303_250911	(RB) FB TB	from shovel	2	
11/9/25	0089_QC403_250911	RB (FB) TB	taken end of day	2	
12/9/25	0089_QC304_250912	(RB) FB TB	from shovel.	2	
12/9/25	0089_QC404_250912	RB (FB) TB	taken end of day.	2	
15/9/25	0089_QC305_250915	(RB) FB TB	taken from interface pipe	2	
15/9/25	0089_QC405_250915	RB (FB) TB	taken at MW255.	2	
16/9/25	0089_QC306_250915	(RB) FB TB	from pieziometer	2	
16/9/25	0089_QC406_250915	RB (FB) TB	~~Bigger~~	2	
17/9/25	0089_QC307_250917	(RB) FB TB	Bigger	2	
17/9/25	0089_QC407_250917	RB (FB) TB		2	
18/9/25	0089_QC308_250918	(RB) FB TB	Bigger	2	
18/9/25	0089_QC408_250918	(FB)	from MW199 area.	2	
19/9/25	0089_QC309_250919	RB		2	
19/9/25	0089_QC409_250919	FB	from MW289 area.	2	

DCMM (Annex L) sample naming convention:
Rinsate: **PPPP_QC3XX_YYMMDD**
Field blank: **PPPP_QC4XX_YYMMDD**
Trip blank: **PPPP_QC5XX_YYMMDD**
See GHD Data Management Plan or DCMM document for further details.

HMAS Stirling
September 2025

Australian Government
Department of Defence

GHD

DCARM QA Blank Sample Register Form

Date/Time	QA Blank Sample ID	Type (circle)	Notes *(Rinsate taken off, field blank location etc.)*	Containers	Initials
23/09/2025	0089-QC310-250923	(RB) FB TB	taken off piezometer	2	[redacted]
23/09/2025	0089-QC410-250923	RB (FB) TB	inside demo ground near MW147	2	
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			
		RB FB TB			

DCMM (Annex L) sample naming convention:
Blind duplicate: **PPPP_QC1XX_YYMMDD**
Split duplicate: **PPPP_QC2XX_YYMMDD**
(XX being a consecutive number, independent of matrix type)
See GHD Data Management Plan or DCMM document for further details.

HMAS Stirling
September 2025

Australian Government
Department of Defence

GHD

DCARM QC Duplicate Sample Register Form

Date	Full Primary Sample ID	Blind Duplicate Sample ID (QC1XX)	Split Duplicate Sample ID (QC2XX)	Containers	Initials
23/09/2025	0089 - SW154 - 250923	0089 - QC116 - 250923	0089 - QC216 - 250923	2: ALS 2: Eurofins	[redacted]
23/09/2025	0089 - MW139 - 250923	0089 - QC117 - 250923	0089 - QC217 - 250923	2: ALS 2: Eurofins	
23/09/2025	0089 - MW147 - 250923	0089 - QC118 - 250923	0089 - QC218 - 250923	2: ALS 2: Eurofins	

Please put these into the 'QA sample name(s)' section of PLog in a single line (e.g. PPPP_QC1XX_YYMMDD, PPPP_QC2XX_YYMMDD).



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Appendix K

PFAS analytical suite

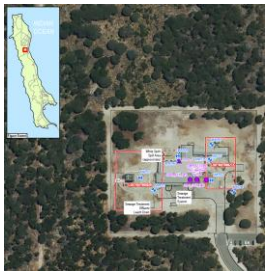
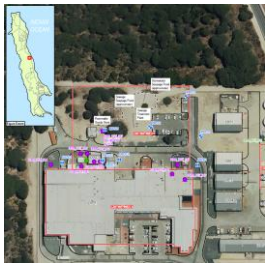
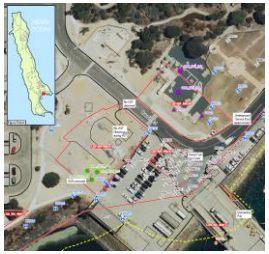
Group/Analytes	Water Std level (µg/L)	Water Std level (µg/L)	Water Low Level (µg/L)	Water Low Level (µg/L)	Super Trace (µg/L)	Super Trace (µg/L)	Super Ultra Trace (µg/L)	Super Ultra Trace (µg/L)
Method Code	EP231	EP231X	EP231-LL	EP231X-LL	EP231-ST	EP231X-ST	EP231-SUT	EP231X-SUT
Sample Volume Requirement	2x 20 mL	2x 20 mL	2x 20 mL	2x 20 mL	2x 120 mL	2x 120 mL	2x 120 mL	2x 120 mL
Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)		0.02		0.01		0.002		0.002
Perfluorobutane sulfonic acid (PFBS)	0.02	0.02	0.002	0.002	0.0005	0.0005	0.0005	0.0005
Perfluoropentane sulfonic acid (PFPeS)		0.02		0.002		0.0005		0.0005
Perfluorohexane sulfonic acid (PFHxS)	0.01	0.01	0.002	0.002	0.0005	0.0005	0.0005	0.0005
Perfluoroheptane sulfonic acid (PFHpS)		0.02		0.002		0.0005		0.0005
Perfluorooctane sulfonic acid (PFOS)	0.01	0.01	0.002	0.002	0.0003	0.0003	0.0002	0.0002
Perfluorononane sulfonic acid (PFNS)		0.02		0.002		0.0005		0.0005
Perfluorododecane sulfonic acid (PFDoDS)*		0.25		0.25		NA		0.005
Perfluorodecane sulfonic acid (PFDS)		0.02		0.002		0.0005		0.0005
Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	0.1	0.1	0.01	0.01	0.002	0.002	0.002	0.002
Perfluoropentanoic acid (PFPeA)	0.02	0.02	0.002	0.002	0.0005	0.0005	0.0005	0.0005
Perfluorohexanoic acid (PFHxA)	0.02	0.02	0.002	0.002	0.0005	0.0005	0.0005	0.0005
Perfluoroheptanoic acid (PFHpA)	0.02	0.02	0.002	0.002	0.0005	0.0005	0.0005	0.0005
Perfluorooctanoic acid (PFOA)	0.01	0.01	0.002	0.002	0.0005	0.0005	0.0005	0.0005
Perfluorononanoic acid (PFNA)		0.02		0.002		0.0005		0.0005
Perfluorodecanoic acid (PFDA)		0.02		0.002		0.0005		0.0005
Perfluoroundecanoic acid (PFUnDA)		0.02		0.002		0.0005		0.0005
Perfluorododecanoic acid (PFDoDA)		0.02		0.002		0.0005		0.0005
Perfluorotridecanoic acid (PFTrDA)		0.02		0.002		0.0005		0.0005
Perfluorotetradecanoic acid (PFTeDA)		0.05		0.005		0.0005		0.0005
Perfluorohexadecanoic acid (PFHxDA)		0.05		0.005		NA		NA
Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)		0.02		0.002		0.0005		0.0005
N-Methyl perfluorooctane sulfonamide (MeFOSA)		0.05		0.005		0.001		0.001
N-Ethyl perfluorooctane sulfonamide (EtFOSA)		0.05		0.005		0.001		0.001
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)		0.05		0.005		0.001		0.001
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)		0.05		0.005		0.001		0.001
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)		0.02		0.002		0.0005		0.0005
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)		0.02		0.002		0.0005		0.0005
(n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.05	0.05	0.005	0.005	0.001	0.001	0.001	0.001
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.05	0.05	0.005	0.005	0.001	0.001	0.001	0.001
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.05	0.05	0.005	0.005	0.001	0.001	0.001	0.001
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.05	0.05	0.005	0.005	0.001	0.001	0.001	0.001
PFAS Sums								
Sum of PFAS		0.01		0.002		0.0003		0.0002
Sum of PFHxS and PFOS	0.01	0.01	0.002	0.002	0.0003	0.0003	0.0002	0.0002
Sum of PFAS (WA DER List)	0.01	0.01	0.002	0.002	0.0003	0.0003	0.0002	0.0002

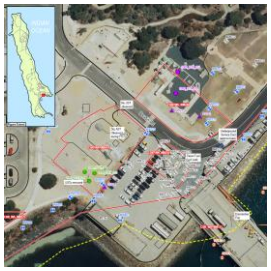
*PFDoDS only available upon request, performed by ALS Sydney

Appendix L

Summary of RCIP studies

RCIP PFAS investigation outcomes

Study	Area	Assessed by PFAS DSI?	Key findings regarding PFAS	Recommendations regarding PFAS
RCIP DSI (GHD, 2020)	Torpedo Maintenance Explosive Area (CSR_WA_000020 & CSR_WA_000231) 	No	– PFOS was recorded in groundwater collected from a single monitoring well (MW095) at the Torpedo Maintenance Explosive Area at a concentration of 0.19 ug/L (greater than the PFAS NEMP interim 99% marine species protection criterion of 0.00023 ug/L). – It was noted that the recorded concentrations were less than the 95% upper confidence limit (UCL) concentration recorded for the groundwater data set for other areas investigated in the PFAS DSI, suggesting the recorded concentrations were representative of regional PFAS characteristics.	-
	Torpedo Maintenance Facility – D21 (CSR_WA_000124, CSR_WA_000227 & CSR_WA_000028) 	No	– PFOS was recorded in groundwater at a single monitoring well (MW092) at the Torpedo Maintenance Facility – D21 at a concentration of 0.02 ug/L (greater than the PFAS NEMP interim 99% marine species protection criterion of 0.00023 ug/L). – It was noted that the recorded concentrations were less than the 95% UCL concentration recorded for the groundwater data set for other areas investigated in the PFAS DSI.	-
	Ship Sullage Facility - UST_057 and UST_058 (CSR_WA_000240) 	Yes	– PFAS was identified in groundwater at the Ship Sullage Facility, which includes two sullage underground storage tanks (USTs) that have been the subject of multiple overflow and spill events. PFAS assessment was undertaken as part of assessment of groundwater quality post redevelopment of the area, and in conjunction with investigations to further delineate a hydrocarbon plume. The following was noted regarding PFAS: • The recorded PFOS groundwater concentrations at three monitoring wells (MW325, MW331 and MW481), ranging from 0.03 to 0.16 ug/L, exceeded the PFAS NEMP interim 99% marine species protection criterion (0.00023 ug/L). It was noted that the PFOS concentrations recorded were comparable to those previously reported (RPS 2018a) and were therefore not considered to warrant further investigation. • The recorded PFOS + PFHxS concentration of 3.44 ug/L at one monitoring well (MW331) exceeded both the PFAS NEMP drinking water (0.07 ug/L) and recreational water use criteria (0.7 ug/L). It was noted that PFOS + PFHxS concentrations at the down-gradient monitoring well were below the NEMP recreational water use criterion.	Consideration to include monitoring of PFAS in groundwater in the area as part of the OMP was recommended.

Study	Area	Assessed by PFAS DSI?	Key findings regarding PFAS	Recommendations regarding PFAS
	Building 54 - Group of USTs Oil (CSR_WA_000241) 	No	– PFAS was identified in groundwater at the Building 54 Group of USTs, which includes three USTs that have been the subject of multiple overflows and spill events. PFAS assessment was undertaken in conjunction with investigations to further delineate a hydrocarbon plume. The following was noted regarding PFAS: • The recorded PFOS concentrations in groundwater at five monitoring wells (MW006, MW483, MW484, MW486 and MW515), ranging from 0.04 to 32.2 ug/L (at 0089_MW486), exceeded the PFAS NEMP interim 99% marine species protection criterion of 0.00023 ug/L. • The recorded PFOS + PFHxS concentrations at four monitoring wells (MW006, MW483, MW486 and MW515), ranging from 1.3 to 35.6 ug/L, exceeded the PFAS NEMP recreational water use criterion of 0.7 ug/L. • It was noted that concentrations at the down-gradient monitoring well were three orders of magnitude greater than those recorded in the up-gradient well, indicating that the area is/was contributing to PFAS groundwater impacts. The recorded concentrations were also noted to be two orders of magnitude greater than those identified by the PFAS DSI (RPS 2018a) in the area (0.73 ug/L). – Due to the proximity of the area to Careening Bay, it was considered that the recorded PFAS concentrations may pose an unacceptable risk to ecological receptors of the marine environment. It was recommended that the concentrations be considered in the context of the ERA to determine if further action is warranted.	Due to the proximity of the area to Careening Bay, it was considered that the recorded PFAS concentrations may pose an unacceptable risk to ecological receptors of the marine environment. It was recommended that the concentrations be considered in the context of the ERA to determine if further action is warranted.
RCIP Stage 2 DSI (GHD, 2024a) RCIP Addendum Stage 2 DSI (Wastewater Treatment Plant [WWTP]) **(GHD, 2025a)** Saline Stream WWTP Contamination Risk Assessment	Sewage Treatment Plan (proposed by RCIP to be re-named “Wastewater Treatment Plant”) (CSR_WA_000128) 	Yes	**Supplementary WWTP investigation** – The Addendum Stage 2 RCIP DSI and subsequent saline stream WWTP risk assessment identified PFAS in soil and groundwater at and down-gradient of the WWTP seepage ponds at concentrations greater than measured background concentrations. – PFOS concentrations in soil exceeded the HEPA (2020) indirect ecological exposure criterion. PFOS + PFHxS concentrations in groundwater exceeded HEPA (2020) human health recreational water criteria, indicating a potential risk to recreational users of the Indian Ocean to the west of the ponds. – The spatial correlation of elevated PFAS concentrations in groundwater proximal to the seepage ponds, as well as the similarities in PFAS composition between the groundwater and soil samples, supported that the seepage ponds are likely an ongoing source of PFAS to groundwater.	GHD (2024c) recommended completion of an engineering design review to inform necessary upgrades to WWTP design, capacity and processes to seek to ensure that effluent is always fully treated to an acceptable quality prior to discharge to the seepage ponds.

Study	Area	Assessed by PFAS DSI?	Key findings regarding PFAS	Recommendations regarding PFAS
(GHD, 2024b)			– PFOS concentrations in marine porewater and surface water hydraulically down-gradient of the WWTP were greater than the HEPA (2020) marine water 99% ecological criterion. A fauna assessment was conducted to support an assessment of the likelihood of unacceptable PFOS exposure occurring to or via consumption of infauna (i.e., animals living in the sediments of the ocean floor, from which the porewater samples were collected). The findings of the assessment indicated that there appears to be a low risk of exposure of aquatic invertebrates to PFAS via direct contact, and higher trophic level marine species to PFAS through bioaccumulation within the study area, however this was based on limited data. – PFAS concentrations in porewater and surface water appeared to reduce to below levels that would be of concern for human health in the context of recreational use of the Indian Ocean west of the WWTP and seepage ponds. **Saline Stream WWTP Contamination Risk Assessment** A Technical Memorandum was prepared after concerns were raised regarding whether the saline WWTP was adequately designed to manage current effluent volumes without posing a contamination risk to the environment, following the identification of design capacity exceedances. The objectives of the assessment were to: – Identify and investigate potential sources and impacts of contamination associated with saline WWTP operations including overdesign flows and potential over-flows of nutrient rich wastewater. – Assess contamination risk associated with current saline WWTP operations. – Identify if the bypass of partially treated effluent through the Saline WWTP adversely affects the environment in comparison with treated saline effluent stream. – Provide recommendations regarding the need for an engineering design review of the saline WWTP. The assessment found that under the current design capacity, the saline WWTP does not have the capacity to treat the effluent volumes regularly required to be managed, which results in partially treated effluent being released to the environment via unlined seepage ponds. This review has concluded that under current processes, WWTP discharges are causing increasing trends in nutrient concentrations in groundwater and an unacceptable nutrient load to the environment.	GHD (2024c) recommended that the design review also consider PFAS treatment, in the context of broader PFAS risk assessment and management, to ensure that PFAS concentrations in effluent are discharged at a concentration that does not pose a risk to identified receptors, acknowledging that currently the saline WWTP does not treat PFAS.

Study	Area	Assessed by PFAS DSI?	Key findings regarding PFAS	Recommendations regarding PFAS
RCIP Stage 2 DSI (GHD, 2024a)	Joint Logistics Unit (West) Area (Buildings B0007, B0095, B0058) (CSR_WA_000362) 	No	– PFAS was detected at concentrations above the LOR in soil samples collected from 3 of 7 soil bores. The concentrations did not exceed the adopted soil assessment criteria. – PFAS was detected at concentrations above the LOR in groundwater at three of five monitoring wells sampled. Concentrations exceeded the PFAS NEMP interim marine criteria at two monitoring wells (MW547 and MW548). – A PFAS plume in groundwater was confirmed to extend beneath the CSR towards the southeast, towards Careening Bay. The extent of the PFAS plume was not confirmed. Additional investigation and monitoring of groundwater was recommended, including addition of the area to the OMP.	Additional investigation and monitoring of groundwater was recommended, including addition of the area to the OMP. Sampling and analysis for PFAS in the stormwater/drainage system of the CSR was recommended to better understanding PFAS migration within/from the CSR.
	Stockpiled material of an unknown source (CSR_WA_000364) 	No	– PFAS was detected at concentrations above the LOR in 2 of 10 soil samples collected from the stockpiled material. – Further consideration of the contamination status of the stockpiled soils within this CSR was not considered to be required.	GHD considered that the material can either be disposed off-site to a licenced landfill as Class I contaminated soil, or if retained on-Site, can be used as capping material or in construction (such as, beneath concrete slabs or road reserves).



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