



Ongoing monitoring report – December 2023 to November 2024

HMAS Cerberus

Department of Defence

JBS&G | 66022 | 165,490 – FINAL Rev 0

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We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.

Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte



Executive summary

General

The PFAS management area plan (PMAP) (Defence, 2018) was prepared by Department of Defence (Defence) for HMAS Cerberus (the base) and sets out management measures to be implemented to manage potential risks arising from per- and polyfluoroalkyl substances (PFAS) contamination associated with the base and surrounding areas.

PFAS are a group of synthetic (i.e. 'man-made') compounds widely used around the world since the 1950s to make products that resist heat, stains, grease and water. Defence has historically stored and used PFAS containing aqueous film forming foam (AFFF) products on-base for firefighting purposes, which has resulted in PFAS contamination on and in the vicinity of the Defence estate.

Opportunistic clean-up of PFAS at the former fire training ground (FTG) was completed in May 2022 as part of base redevelopment. The actions set out in the PMAP have been addressed (GHD, 2025) including the implementation of an Ongoing Monitoring Plan (OMP) to monitor and manage potential risks associated with PFAS in groundwater and surface water. Defence is currently transitioning away from the PMAP.

JBS&G Australia Pty Ltd has prepared this ongoing monitoring report (OMR) for Defence for HMAS Cerberus and the surrounding former management area. The OMR assesses the results of OMP sampling events that occurred in December 2023, May 2024 and November 2024.

For the purposes of this report:

- The base refers to HMAS Cerberus, Victoria, and includes the channel and intertidal zone within Hanns Inlet.
- The former management area consists of Hanns Inlet and the northern portion of the base. This aligns with the investigation area for the intrusive component of the detailed site investigation (DSI) works conducted in 2018.

The base and former management area are shown on **Figure 1**.

Objective

The objective of this report is to assess and interpret the PFAS monitoring data and other information collected for the base to identify and evaluate the following:

- PFAS concentrations at different locations and how they fluctuate over time.
- Changes to PFAS sources, transport pathways and/or receptors.
- Whether risks to human and ecological receptors require review.
- Whether the identified changes trigger an action and/or review.

Monitoring Scope

The OMP monitoring scope specifies sampling of 53 groundwater wells and 27 surface water locations across the base and surrounding area, although several groundwater and surface water locations were dry during each sampling event.

Groundwater

The monitoring data from December 2023, May 2024 and November 2024 indicate that the plume of PFAS impact originating from the former FTG is stable. Following opportunistic clean-up of the former FTG in May 2022 the potential for significant ongoing mass flux from this PFAS source area has been addressed (although PFAS concentrations at individual wells may be variable).

Concentrations of PFAS have decreased at 15 wells across the base reflecting attenuation of PFAS impacted groundwater as it migrates to the south. Decreasing trends at one upgradient well reflect a reduction in offsite PFAS affecting the base from the east. The remaining wells reported stable concentrations or no trend.

Surface water

Surface water enters the base via South, East and West Creeks which flow in a general southerly direction towards Hanns Inlet. PFAS concentrations in surface water from December 2023, May 2024 and November 2024 are stable and comparable with previous OMP sampling events and environmental investigations. The results confirm the conceptual site model (CSM) that surface water is the primary pathway for PFAS migration from the former FTG and operational areas of the base.

Surface water entering the base from upgradient areas contains negligible/low concentrations of PFAS. The remediated former FTG is an ongoing source of PFAS in South Creek although concentrations are decreasing or stable. The former sewage treatment plant (STP) shows an increasing PFAS trend in the southern lagoon with the northern lagoons exhibiting stable or decreasing trends and this will be monitored as part of the OMP program.

Conceptual site model and risk profile update

The OMP results from December 2023 to November 2024 did not identify any additional source areas which had not been previously assessed and no additional transport or exposure pathways.

The results were within historical ranges except for increasing trends central to the operational area of the base and downgradient of the former FTG. Decreasing concentrations were recorded within surface water and groundwater in various other parts of the base.

The final site condition report (GHD, 2025) determined that risks to receptors was low and acceptable and that concentrations of PFAS downgradient of the former FTG are expected to gradually decrease as a result of the opportunistic clean-up work that was conducted as part of base redevelopment in May 2022. This report did not identify any changes to the source-receptor-pathway relationship and so the risk profile is unchanged.

Program triggers or actions

Based on the review completed, the objectives of the OMP were achieved for the December 2023 to May 2024 period. Ongoing monitoring is required to identify PFAS trends over time including changes such as those observed downgradient of the remediated former FTG.

The existing monitoring network and frequency can be reduced where source areas have been adequately characterised and where stabilised concentrations have been recorded. The OMP will be updated to reflect the recommended changes outlined in this report.

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Abbreviations

Term	Definition
AS	Australian Standard
AFFF	Aqueous film forming foam
ANZG	Australian and New Zealand guidelines
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended in 2013)
AST	Above ground storage tank
BoM	Bureau of Meteorology
CRD	Cumulative rainfall departure
CSM	Conceptual site model
CSR	Contaminated site record
DCMM	Defence contamination management manual
DO	Dissolved oxygen
DQO	Data quality objective
DSI	Detailed site investigation
EC	Electrical conductivity
EPA	Environment Protection Authority Victoria
ERS	Environment reference standard
FTG	Fire training ground
FSC	Food standards code
GEMS	Garrison estate management system
HEPA	Heads of Environmental Protection Authority Australia and New Zealand
HHERA	Human health and ecological risk assessment
JBS&G	JBS&G Australia Pty Ltd
LOR	Limit of reporting
mBGL	Metres below ground level
mAHD	Metres Australian height datum
µg/L	Micrograms per litre
mg/L	Milligrams per litre
NEMP	Heads of EPAs Australia and New Zealand (HEPA), PFAS National Environmental Management Plan – Version 3; 2025
NHMRC	National Health and Medical Research Council
OHS	Occupational health and safety
OMP	Ongoing monitoring plan
OMR	Ongoing monitoring report
PFAS	Per- and poly-fluoroalkyl substances
PFBS	Perfluorobutane sulphonic acid
pH	Potential of hydrogen
PMAP	PFAS management area plan

Term	Definition
PFHxS	Perfluorohexane sulfonate
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonate
QA/QC	Quality assurance / quality control
RAN	Royal Australian Navy
SER	Sampling event report
SAQP	Sampling, analysis and quality plan
SSSS	School of survivability and ship safety
STP	Sewage treatment plant
TA	Technical advisor
TDS	Total dissolved solids
US EPA	U.S. Environmental Protection Agency
UST	Underground storage tank
WMIS	Water measurement information system

1. Introduction

JBS&G Australia Pty Ltd (JBS&G) has been engaged by the Department of Defence (Defence) to complete an ongoing monitoring report (OMR) for HMAS Cerberus, Victoria (the base) and surrounding former management area. This OMR includes the findings of three biannual per- and poly-fluoroalkyl substances (PFAS) ongoing monitoring plan (OMP) sampling events that occurred in December 2023 and May 2024 (both conducted by Stantec Australia Pty Ltd), and November 2024 (conducted by JBS&G).

PFAS are a group of synthetic (i.e. 'man-made') compounds widely used around the world since the 1950s to make products that resist heat, stains, grease and water. Defence has historically stored and used PFAS containing aqueous film forming foam (AFFF) products on-base for firefighting purposes, which has resulted in PFAS contamination on and in the vicinity of the Defence estate.

For the purposes of this OMR:

- The 'base' refers to HMAS Cerberus, Victoria, and includes the channel and intertidal zone within Hanns Inlet, as shown within the green outline in **Figure 1**.
- The former management area consists of Hanns Inlet and the northern portion of the base. This aligns with the investigation area for the intrusive component of the detailed site investigation (DSI) works, shown as the investigation/former management area within the blue outline in **Figure 1**. The southern portion of the base was excluded from the DSI due to the presence of unexploded ordnance. However, this exclusion did not compromise the completeness of the DSI, as no known or suspected PFAS sources or pathways exist within that section (Aurecon, 2018a).

1.1 Background

Previous investigations at the base identified contamination related to the historical use of AFFF that contained PFAS. Residual PFAS in soil has resulted in impacts to surface water and groundwater within and downgradient of the base (Aurecon 2018a). Groundwater impacted by PFAS originating from the base migrates to the south and east towards Hanns Inlet and/or interacts with surface water within the tidal creeks.

A tier 1 risk assessment (human health and ecological risk assessment (HHERA)) (Aurecon, 2018a) showed that potential risks to human health for exposure scenarios on- and off-base were low and acceptable except for exposure risk to workers undertaking intrusive works and this is managed through base occupational health and safety (OHS) controls and the Defence PFAS construction and maintenance framework (Defence, 2025). The HHERA identified potential risks to on-base ecological receptors resulting from direct and secondary exposure to PFAS impacted soils, surface waters and groundwater. Off-base ecological receptors potentially affected included marine biota within Hanns Inlet.

Opportunistic clean-up of a primary PFAS source area, the former fire training ground (FTG), was conducted between 2021 and May 2022 as part of base redevelopment and was determined to be an acceptable management action and likely to result in reduction in downgradient groundwater and surface water PFAS impact according to the final site condition report (GHD, 2025). Cleanup actions included the design and construction of a containment facility at the former FTG to encapsulate PFAS impacted source materials from the FTG, ornamental pond area and other construction areas. The final site condition report confirmed the findings of low and acceptable risk to receptors except for training and maintenance/construction activities involving contact with soils and/or groundwater in the source areas (GHD, 2025).

The PFAS management area plan (PMAP) (Defence, 2018) was prepared by Defence and sets out management measures to be implemented to manage potential risks arising from PFAS contamination associated with the base and surrounding areas. The actions set out in the PMAP have been addressed (GHD, 2025) including the implementation of an OMP to monitor and manage potential risks associated with PFAS in groundwater and surface water. Defence is currently transitioning away from the PMAP.

The OMP for HMAS Cerberus (Aurecon, 2018b) sets out a program of biannual monitoring of surface water and groundwater across the base and management area. The purpose of the OMP, as defined in the PMAP (Defence, 2018), is to monitor changes to the contamination plume and surface water contamination characteristics. The OMP commenced at the base in November 2019 and was implemented by Cardno Victoria Pty Ltd (now Stantec) up to August 2024.

This OMR summarises sampling events completed by Stantec in December 2023 and May 2024 (known as sampling events 9 and 10) and the sampling event completed by JBS&G in November 2024 (sampling event 11). Previous sampling events from November 2020 to May 2023 are documented in OMR: November 2020 – May 2023 (Stantec, 2024c). November 2019 and May 2020 sampling events are documented in PFAS OMP annual interpretive report (Cardno, 2021). These reports are discussed further in **Section 3**.

1.2 Objectives

The objective of this OMR is to assess and interpret the PFAS data and other information collected for the base to identify and evaluate the following:

- Spatial and temporal (including seasonal) variability of PFAS in the environment.
- Changes to sources, transport pathways and/or receptors (the conceptual site model [CSM]).
- Whether risks to human and ecological receptors require review.
- The influence that risk management activities (e.g. remediation) as outlined in the PMAP, have had on PFAS in the environment.
- Whether the identified changes trigger an action and/or review.

1.3 Scope of Work

JBS&G completed the following scope of work as part of this OMR:

- Review of the base and environmental setting to provide context to OMP data.
- Review of monitoring data from the three sampling events - December 2023, May 2024 and November 2024.
- Analysis of the trends in PFAS concentrations.
- Completion of this OMR report.

2. Base and environmental setting

2.1 Base location and description

A summary of base identification and setting details is provided in **Table 2-1**, with the base boundary and key features provided in **Figure 1**.

Table 2-1: Base identification and setting summary

Item	Details
Site Address	South Beach Road, Cerberus VIC 3920
Site Area	1,517 hectares
Military Area (Property ID)	0066
Municipality	Mornington Peninsula Shire
Current Land Use	Department of Defence Royal Australian Navy (RAN) base including areas for: • Administration; • Accommodation and general amenities for personnel; • Childcare; • Training; • Indoor and outdoor recreation; • Equipment maintenance • Wharf and marina • Logistics associated with Defence activities.
Surrounding Land Uses	Land uses surrounding the base are as follows: • North: ○ North of Disney Street consists of mixed low-density residential, former landfill on Lens Street (currently a recreation reserve), nature reserve, industrial facilities, landscaping/garden suppliers and tourist accommodation; and ○ Further afield to the north land use consists of residential, schools, aged care facility, commercial facilities, BlueScope Steel (approximately 7km north) and Long Island Point petroleum storage and processing facilities (approximately 6km north). • East: ○ Railway line and Crib Point railway station between eastern site boundary and Stony Point Road; and ○ Mixed use residential and commercial areas present to the east of Campell Street and Stony Point Road, including retail shops, car wash, recreation reserves, and schools. • South: ○ The base borders Hanns Inlet to the south. • West: ○ Mixed low-density residential, accommodation, wineries, small acreage farming, horse track; and ○ A nursery and South East Water Somers Treatment Plant located west of South Beach Road consisting of treatment plant and lagoons.
Climate	Long-term climate data collected from the closest Bureau of Meteorology (BoM) station located on-base (Station ID: 086361), indicates the following between 1986 and 2025: • Mean annual rainfall is approximately 716 mm. • Highest average monthly rainfall is approximately 73.3 mm, which occurs in June. • Lowest average monthly rainfall is approximately 34.7 mm, which occurs in February. • The highest average daily temperature is 25.0 °C, which occurs in February. • The lowest average daily temperature is 13.7 °C, which occurs in July. Rainfall data from the sampling period is discussed in Section 7.1.

Item	Details
Topography	The northern part of the base forms a broad valley, with the northern and western parts of the base sloping generally south towards Hanns Inlet. The main operational part of the base containing the majority of infrastructure is located on a low ridge between 0 meters Australian Height Datum (mAHD) and approximately 10 mAHD. The peninsula which forms the eastern part of the base is on a minor topographical peak of approximately 25 mAHD. There is a topographic divide between the southern part of the base and Sandy Point Road – land slopes north to the north of this divide and south to the south of this divide.
Hydrology	Surface water within the broad valley at the north of the base flows generally southeast towards Hanns Inlet via the main operational part of the base. South Creek and East Creek enter the site from the west and north respectively and convey surface water around the operational part of the base towards Hanns Inlet, with the lower reaches of South Creek consisting of a dredged channel. West Creek enters the site from the west, flows between on-base former wastewater lagoons and enters Hanns Inlet via dredged channels. Surface water from the operational area and the broad valley at north of the site flows generally south into the tidally influenced estuary of Hanns Inlet and combines with Western Port Bay. This is the primary catchment area of interest due to the historical activities relating to AFFF in the operational area. Surface water from the eastern peninsula of the base (near Crib Point and Stony Point) flows in various directions towards Hanns Inlet and Western Port Bay. The tidal flats of Hanns Inlet experience a tidal range of approximately 2m between -1 mAHD and 1 mAHD (Aurecon, 2018a). The identified surface water features are shown in Figure 1.
Drainage	The on-base stormwater network consists of a combination of open drains and an engineered concrete pit-and-pipe network (Aurecon, 2018a) and bioretention basins at six stormwater mains prior to discharge to the wetlands of Hanns Inlet (GHD, 2025). The stormwater network discharges to tidal creeks and directly to Hanns Inlet. Base staff reported backflow of tidal waters to the bioretention basins during high tide resulting in filling of the basins (Aurecon, 2022).
Geology	Based on previous investigations, there are three main geological units present across and base and in the former management area. Surface geology consists of: • Brighton Group throughout the majority of northern and central parts of the base including the operational area. This is a fluvial geological unit consisting of sandstone, conglomerate, siltstone and ironstone. • Coastal lagoon deposits within and surrounding creek beds of East, South and West Creeks, consisting of variably consolidated silt and clay of dark grey to black colouration. • Coastal dune deposits on the peninsula that forms the south part of the base, consisting of sand, silt, clay, well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits. • Alluvial deposits in the main operational and residential areas of the base of up to 3 m depth, deposited between ridges of Brighton Group sediments (Aurecon, 2018a). The underlying geological units are as follows: • Silurian Bedrock (marine deposits): >100m – consisting of siltstones and sandstones. • Tertiary-aged foundations consisting of lignite, fractured basalt, sand and clays with some limestone layers, sandy clays to clayey sands.
Hydrogeology	Based on previous investigations, regional groundwater flows towards the south-east and discharges into Western Port Bay and Hanns Inlet (Aurecon, 2018a). The shallow groundwater aquifer occurs within the alluvial sediments to the south and east of the operational part of the base, associated with East Creek and South Creek hydrologic features. The fluvial Brighton Group sands and clays form an underlying semi-confined aquifer, and this unit contains two water-bearing zones: an upper zone from 6 – 8 metres below ground level (mBGL) and deeper from 10 – 12 mBGL saturated zone. An upwards vertical gradient within the Brighton Group aquifer has been reported in previous investigations, as indicated by paired wells MW214S/D, MW215S/D and MW217S/D installed in the upper and lower water-bearing zones of the Brighton Group aquifer. Shallow aquifers are understood to recharge directly by rainfall, tidal influence and possibly through irrigation of sports fields or agricultural land. Discharge occurs via local surface water features, evapotranspiration and/or extraction wells.

Item	Details
	Groundwater is approximately between 1 m and 4 m deep within the operational part of the base. Groundwater flow direction in the upper Brighton Group aquifer tends to be similar to surface water flow with groundwater discharging directly to Hanns Inlet from the central and eastern part of the operational area.
Registered Groundwater Bores	According to the Victorian water measurement information system (WMIS) there are a total of 53 off-base registered groundwater bores within 2km of the base boundary registered for the following uses: • Domestic and/or Stock – 40 wells; • Observation – 2 wells; • Irrigation – 2 wells; • Investigation – 1 well; and • Unknown – 8 wells. There are a total of 13 on-base groundwater bores registered for the following uses: • Domestic and/or Stock – 2 wells; • Observation – 2 wells; and • Investigation – 9 wells. Groundwater may also be used in the area by users with unregistered bores. The bore search and a figure showing locations of registered bores is provided in Appendix A.

2.2 PFAS Source Areas

Investigation completed to date has identified various sources of PFAS across the base relating to use, storage and waste management of AFFF. AFFF was used from the 1970s and was discontinued in 2008.

According to the DSI (Aurecon, 2018a), the primary sources of PFAS in soil were the FTG and nearby wetlands adjacent to South Creek (named South Creek wetlands) which received PFAS discharges from the FTG. Minor soil source areas were also identified at the fire station and nearby ornamental lake, former sewage treatment plant (STP) and associated settling lagoons, sports field irrigated with Class C (primary treated) recycled water and the sillage pit.

Soil samples collected outside of the source areas reported non-detect to negligible concentrations of PFAS. The lateral and vertical extent of PFAS contamination was generally delineated except for the vertical extent in the vicinity of the FTG lagoon, due to access restrictions beneath the lagoon. The DSI found that perfluorooctane sulfonate (PFOS) is the principal contributor to PFAS in soil based on total mass of PFOS compared with perfluorohexane sulfonate (PFHxS) and perfluorooctanoic acid (PFOA). This mass was primarily contained within shallow soils around the FTG and wetlands.

PFHxS in groundwater forms a continuous plume across the base. PFOS is confined to a plume across the western extent of the operational area (a small contiguous plume between the FTG and South Creek wetlands) and two smaller plumes in the eastern areas adjacent to Hanns Inlet.

PFAS contaminated surface water enters the base at the north, however the surface water impacts primarily relate to on-base sources. PFOS impacted surface water is present in the west and central portions of Hanns Inlet and PFOS was not detected in the eastern portion (Aurecon, 2018a).

Redevelopment of the former FTG including opportunistic clean-up has occurred since the DSI was completed and the final condition report (GHD, 2025) provides a summary of site condition following clean-up. The PFAS source areas are summarised in **Table 2-2**. The information in the table comprises a recent extract of the Defence garrison estate management system (GEMS) (2025) and additional contaminated site records (CSRs) noted by GHD (2025). A description of the source areas, their respective CSR IDs and a summary of post clean-up condition is provided.

Table 2-2: Summary of PFAS source areas

CSR ID	CSR title	Post clean-up conclusion (GHD, 2025)
CSR_VIC_000069	Water Filter Wash-down Area and underground storage tank (UST) (CER01) and ASTs	Likely minor impact with potential isolated groundwater plume identified by Aurecon (2018a).
CSR_VIC_000155 CSR_VIC_000280 CSR_VIC_000279 CSR_VIC_000070 CSR_VIC_000277 CSR_VIC_000278	(UST and aboveground storage tank (AST) areas – contaminated concrete and bitumen	PFAS impacted media remain within this source area. No management and mitigation measures to remove PFAS mass or decrease mass discharge were undertaken in this source area. PFAS source mass discharge and mass flux are anticipated to remain unchanged in this source area.
CSR_VIC_000137	Closed rifle range landfill	PFAS source mass discharge and flux expected to remain unchanged because no contaminated soil was removed from this area.
CSR_VIC_000138	Coal loading area. Reclaimed land - asbestos and secondary PFAS impacts in groundwater	
CSR_VIC_000140	Road to small arms training area - former STP	PFAS source mass discharge and flux expected to remain unchanged because no contaminated soil was removed from this area.
CSR_VIC_000147	Concrete and bitumen - powerhouse	The primary PFAS migration pathway off-base is via surface water flows. This area is hydraulically down gradient from the FTG. PFAS source mass discharge and flux expected to remain unchanged.
CSR_VIC_000143 CSR_VIC_000139	Former outdoor swimming pool landfill	PFAS source mass discharge and flux expected to remain unchanged because no contaminated soil was removed from this area.
CSR_VIC_000148	North side Hanns Inlet - sullage pit	
CSR_VIC_000149	Car park west of Building 189 - former dry cleaning	
CSR_VIC_000155	Secondary PFAS in GW - UST CER02 decommissioned in-situ	PFAS source mass discharge and flux expected to remain unchanged because no contaminated soil was removed from this area.
CSR_VIC_000276 ¹	Former RAN School of survivability and ship safety (SSSS) FTG	Encapsulation of 70% of surface soils (0 to 3m) within the containment cells is expected to result in a decrease in mass discharge from the area and the base. PFAS remains present in soil beneath the containment cell.
CSR_VIC_000277	Secondary PFAS in GW – former AST removed behind Building 49	PFAS source mass discharge and flux expected to remain unchanged because no contaminated soil was removed from this area.
CSR_VIC_000279	Corner Cook & Bass Rd - former petrol station USTs	
CSR_VIC_000280	Between Nelson Rd & Building 25 - UST CER03	
CSR_VIC_000446	Woods and wetlands south of former SSSS fire ground	None.
CSR_VIC_000447	Soils impacted by PFAS near fire station and ornamental lake	PFAS source mass discharge and flux expected to remain unchanged because no contaminated soil was removed from this area.
CSR_VIC_000448	Asbestos in soils removed in redevelopment of student accommodation	None.
CSR_VIC_000502	Stony Point borrow pits – southern pit – landfilling	None.

¹CSR_VIC_000490 and CSR_VIC_000491 also relate to the former RAN SSSS FTG.

3. Other data and information

Defence has engaged consultants to progress other investigations as part of implementation of the PMAP. The relevant works are summarised in **Table 3-1** as they provide additional information and data that assist in interpretation of the OMP results.

In addition, the November 2020 – May 2023 OMR (Stantec, 2024c) provides context for historical concentrations at the OMP sampling locations.

Table 3-1: Other Data and Information

Work	Work overview
DSI and Tier 1 Risk Assessment (Aurecon, 2018a)	The DSI was conducted to characterise the nature and extent of PFAS impacts in the environment from legacy use of AFFF at the base, the risks to people and the environment and identify risk management actions. The report identified PFAS sources arising from PFAS use, storage and waste areas to include: • The former FTG and downgradient South Creek Wetlands (primary source); • Fire Station and nearby Ornamental Lake (lesser primary source); • Former STP and associated settling lagoons – stormwater discharged to the lagoons during RAN SSSS redevelopment; • Sports field irrigated with Class C recycled water; and • Sullage pit. Other minor sources were identified. Interpolated volumetric mass of PFAS in soil and groundwater were calculated. A continuous plume of PFHxS was found to occur across the base, whilst PFOS impacts were confined to the western extent of the base with two smaller plumes in the eastern part of the base near Hanns Inlet. Risks to identified receptors on- and off-base were identified as low except for: • Intrusive maintenance workers in the vicinity of the former FTG and South Creek, to be managed through adopted OHS procedures; and • Ecosystems exposed to PFAS impacted soil, surface water and groundwater.
Mass Flux Study (Aurecon, 2022)	The report was prepared to determine the mass of PFAS moving on- and off-base in surface water and groundwater, characterise the PFAS migration pathways and utilise mass flux as a baseline for assessment of ongoing and future remedial effectiveness. The report contains information regarding groundwater well installation, aquifer hydraulic conductivity and details of groundwater, surface water and sediment sampling that was conducted. Transects for calculation of mass flux are provided, but the mass flux calculations or outcomes are not included in the report.
Addendum to Mass Flux Interpretive Report (Stantec, 2024d)	The report was prepared to inform the understanding of surface water mass flux at the base. PFAS mass flux in surface water was calculated pre- and post- opportunistic clean-up of the base which consisted of demolition of the former FTG, construction of a containment cell at the former FTG and installation of new sewer and stormwater drains and associated infrastructure including bioretention basins. The addendum found minor upgradient sources of PFAS mass flux entering the site (total of less than 5 g of PFOS+PFHxS per year). Post-redevelopment and opportunistic clean-up, the annual mass discharge decreased at five surface water locations within South Creek, East Creek and West Creek. The main pathway for PFAS discharge from the base is via SW027, SW079 and SW080; with South Creek being the highest although the mass flux has reduced post-redevelopment of the former FTG. The report indicates that post redevelopment and remediation, the high daily mass discharge from SW027, SW079 and SW080 reduced as follows: SW027 – 202 g/year to 49 g/year SW079 – 14 g/year to 9.9 g/year SW080 – 160 g/year to 64 g/year
OMR – November 2020 to May 2023 (Stantec, 2024c)	The OMR – November 2020 to May 2023 presented and evaluated the OMP data from six sampling events completed by Stantec.

Work	Work overview
Final Site Condition Report (GHD, 2025)	The report was prepared by an independent Technical Advisor (TA) following review of reports and information prepared for the base to date and provides: • A summary of the TA's opinion on the final site condition with regards to risk posed to environmental values by PFAS contamination following opportunistic redevelopment and cleanup activities undertaken; • A summary of the management approach for residual PFAS on the base; and • The TA's opinion on the implementation of PMAP actions. An extensive data review was undertaken including but not limited to the following documents: • DSI and Tier 1 Risk Assessment (Aurecon, 2018a); • Mass Flux Study (Aurecon, 2022); and • Containment Cell Aftercare Management Plan (Golder, 2023). The report discussed cleanup activities which were limited to reducing PFAS source mass discharge rather than cleanup of transport pathways. The report included an evaluation of environmental values, pre- and post- cleanup, identification of key PFAS sources and migration pathways and an evaluation of risk to human health and ecological receptors for soil, groundwater and surface water. The report concluded: • Risks to all environmental values of groundwater and surface water were low and acceptable or not realised with the exception of intrusive construction or maintenance workers exposure to PFAS impacted soil, sediment, biosolids, surface water and groundwater. This was proposed to be managed through OHS controls; • Redevelopment of the RAN SSSS and former FTG (primary PFAS source), whilst undertaken as an opportunistic clean-up exercise and completed in 2022, was considered appropriate to manage PFAS discharge from this primary source area; • Surface water concentrations are not expected to reduce significantly as no direct management and mitigation measures were undertaken. It is unlikely that PFAS concentrations will increase above the maximum values recorded during historical OMP monitoring; • Downgradient concentrations of PFAS in groundwater are expected to reduce over time and significant increases above the historical concentrations are considered unlikely; and • An ongoing monitoring program is appropriate to address requirements of the PMAP and assess effectiveness of cessation of AFFF use and temporal trends in residual PFAS concentrations in surface water and groundwater. The absence of monitoring data demonstrating a reduction in groundwater and surface water concentrations was not considered a material data gap due to the low risks and impacts to environmental values.

4. OMP scope and sampling

4.1 Overview

This OMR reviews the groundwater and surface water sampling completed in December 2023, May 2024 and November 2024. All three events were completed as required in the PMAP (Defence, 2018), OMP (Aurecon, 2018b) and in accordance with the respective Sample Analysis Quality Plans (SAQPs).

The most recent version of the SAQP (JBS&G 2024) is provided in **Appendix B**. Deviations from the SAQP scopes are detailed in **Section 4.5**.

OMP work undertaken by both consultants was completed in general accordance with the applicable industry standards for a site investigation, with these standards being as follows:

- Australian and New Zealand Guidelines (ANZG) (2026), Toxicant default guideline values for aquatic ecosystem protection: PFOS in freshwater.
- Australian Standard (AS) 4482 (2005) Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soils, Part 1 - Non-volatile and semi-volatile compounds (noting that this standard has been withdrawn, however remains part of the state of knowledge).
- Department of Defence (2021), Contamination Management Manual (DCMM).
- Department of Defence (2019), Pollution Prevention Management Manual – Annex 1L: Pollution Prevention Guideline - Routine Water Quality Monitoring.
- Environment Protection Authority (EPA) Victoria (2022), Groundwater Sampling Guidelines, Publication 669.1.
- EPA Victoria (2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication IWRG701.
- Heads of Environmental Protection Authority Australia and New Zealand (HEPA) (2020), PFAS National Environmental Management Plan (NEMP) Version 2.0.
- HEPA (2025), PFAS NEMP Version 3.0.
- National Environment Protection Council (NEPC) (2013), National Environmental Protection (Assessment of Site Contamination) Measure (ASC NEPM).
- National Health and Medical Research Council (NHMRC), (2019), Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water.
- NHMRC (2025), Australian Drinking Water Guidelines.
- Standards Australia (1998), AS/NZ 5667:1998, Water quality – Sampling.
- U.S. Environmental Protection Agency (USEPA), (2006), Guidance for the Data Quality Objectives Process (EPA QA/G-4).
- USEPA, (2002), Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8).

4.2 OMP sampling requirements

4.3 Monitoring schedule

The proposed monitoring frequency for surface and groundwater as specified in the OMP (Aurecon, 2018b) is summarised in **Table 4-1**.

Table 4-1: Monitoring schedule

Matrix	Location	Interval ¹	Monitored parameters
Surface water	Drain discharge points and at locations indicated along the site creek and drains, and at the floating docks in Hanns Inlet.	Biannual for tidal creeks and Hanns Inlet. Ephemeral drains during wet season and post-extreme event.	Field: Physical parameters ² Laboratory: PFAS Suite
Groundwater	Groundwater on site from select wells.	Biannual: August/September and February/March.	Field: Groundwater levels and physical parameters ³ Laboratory: PFAS Suite

Note:

1. Individual remediation action plans may alter the frequency of monitoring.
2. Physical parameters include pH, electrical conductivity (EC), dissolved oxygen (DO), temperature and redox potential, level/elevation and flow rate (except for in Hanns Inlet).
3. Physical parameters include pH, EC, DO, temperature and redox potential.

The proposed sampling frequency for surface water monitoring locations listed in **Section 4.3.1.1** is biannual, however this may vary through the implementation of the OMP as required. For example, additional sampling of ephemeral drains may need to be undertaken during wet season and post-extreme events to assess the potential increase in PFAS surface water concentrations following ‘first flush’ rainfall, and subsequent timeframe for attenuation.

4.3.1 OMP sampling locations

The OMP sampling requirements are detailed in the PMAP (Defence 2018) and OMP (Aurecon, 2018b). **Table 4-2** and **Table 4-3** provides a list of groundwater and surface water sampling locations which are to be completed during each sampling event, along with the reason for each location in the context of the overall program and the base.

The OMP monitoring scope requires sampling of 53 groundwater wells and 27 surface water locations across the base and surrounding area. Groundwater and surface water sample locations are provided in **Figures 2** and **3** respectively.

4.3.1.1 Surface water monitoring locations

The surface water sampling locations, as outlined in the OMP (Aurecon, 2018b), are shown in **Figure 3** and are summarised in **Table 4-2**.

The number of surface water locations increased by one (including SW090) after the December 2023 monitoring event, to a total of 34 locations. Deviations from the sampling locations specified in the OMP are detailed in **Section 4.5**.

Surface water monitoring is undertaken regularly to measure PFAS concentrations within surface water pathways. These pathways are identified as the primary routes through which PFAS exposure may occur, potentially impacting both on-base and off-base receptors (Aurecon, 2018a).

Table 4-2: Summary of surface water monitoring locations

Area	No. of monitoring locations	Monitoring locations	Rationale
Surface water inflows – drains discharging onto the site	4	SW021 to SW024	To evaluate whether PFAS-impacted stormwater is coming into the former management area.
Surface water in Hanns Inlet, adjacent to drain outlets	7	SW001 to SW007	The purpose of these surface water sampling locations, according to the OMP was to evaluate whether the flux of PFAS discharging ultimately into Hanns Inlet is changing during implementation of the OMP. However, as the drains are often dry, samples were collected in November 2024 from surface water within Hanns Inlet directly adjacent to the drain outlet. It is unclear from the December 2023 and May 2024 SERs whether samples were collected from flowing drain outlets or Hanns Inlet.
Surface water outflows – drains discharging into creeks or Hanns Inlet	9	SW009, SW010, SW014, SW015, SW016, SW018, SW019, SW029, SW030	To evaluate the flux of PFAS from base stormwater drains into either base tidal creeks or directly into Hanns Inlet.
Bioretention basin (Basin 5) outlet pipe discharging into Hanns Inlet	1	SW090 ¹	
Surface water - Tidal creeks discharging into Hanns Inlet	4	SW017, SW020, SW027, SW028	To evaluate whether the flux of PFAS discharging via the tidal creeks into Hanns Inlet is changing during implementation of the OMP.
Surface waters of Hanns Inlet	1	SW071	To evaluate whether concentration of PFAS within Hanns Inlet is changing during implementation of the OMP.
Additional surface water locations indicated for sampling on the figure in the OMP, but not specified in the OMP text to be sampled			
Former STP	1	SW057	To evaluate whether the flux of PFAS discharging from these key potential source areas is changing during implementation of the OMP.
FTG	1	SW072 ²	
Additional surface water locations filling data gaps or replacing destroyed locations			
Surface water outflows – drains discharging into creeks or Hanns Inlet	6	SW073 to SW078 ²	To evaluate whether the flux of PFAS discharging ultimately into Hanns Inlet is changing during implementation of the OMP.

¹Location added for May and November 2024 monitoring events to monitor outflow from bioretention basin 5 as agreed with Defence.

²Locations added prior to December 2023 either as a replacement for destroyed locations or as a new location.

4.3.1.2 Groundwater monitoring locations

The network of on-base groundwater monitoring wells sampled and gauged part of the OMP (Aurecon, 2018b) is summarised in **Table 4-3**.

When the OMP was developed, the monitoring network comprised a network of 80 groundwater monitoring wells. All 80 groundwater monitoring wells were to be gauged and 53 sampled. The number of wells to gauge/sample was reduced following the December 2023 monitoring event due to lost and/or compromised wells. These wells were not replaced.

The well network was also altered following opportunistic clean-up of the former FTG conducted as part of base redevelopment, whereby four wells were decommissioned and replaced with new well IDs assigned to the replacement wells.

The current groundwater monitoring scheme based on the most recent SAQP (JBS&G, 2024), comprises gauging of 68 monitoring wells and sampling of 50 monitoring wells. Any deviations from the OMP for the monitoring period are presented in **Section 4.5**.

As discussed in **Section 2**, two main aquifers are present across the base. All wells are installed within Brighton Group aquifer which contains two water-bearing zones (shallow and deep) except four wells installed in the Tertiary-aged alluvial aquifer and one in the fill. These are identified in **Table 4-4**.

The monitoring program facilitates ongoing measurement of PFAS in groundwater, as well as the evaluation of groundwater quality through physio-chemical parameters. Gauging data also supports the assessment of any significant changes in groundwater flow direction. The groundwater monitoring well locations are shown on **Figure 2**.

Table 4-3: Groundwater monitoring network

Item and (no. locations)	source area monitored	Monitoring well/bore ID ^{1 2}
Groundwater wells to be gauged only (18)	N/A	MW001, MW002, MW031, MW040, MW052, MW053, MW056, MW057, MW058, MW060, MW065, MW073, MW119, MW201, MW203, MW205, MW211, MW217S ²
Groundwater wells to be sampled (50)	Off-base to east	MW207, MW208
	Sports Fields	MW041
	Sullage Pit	MW025
	Fire Station	MW110
	Off-base to north	MW206, MW209
	Off-base to west and north-west	MW204
	Former FTG	MW017, MW018, MW063, MW074, MW075, MW117, MW121, MW122D, MW122S, MW212, MW213, MW214S ² , MW215D ² , MW215S ² , MW067
	West of Building 192 – UST CER2	MW019
	Former washdown area of Sewage Treatment Plant (STP) filters at FTG	MW064
	Rifle Range Road Landfill	MW028, MW029, MW030
	Former Outdoor Swimming Pool Landfill	MW033
	Reclaimed Land, Former Coal/Fuel Storage	MW034, MW036, MW102, MW068
	Former Dry Cleaning	MW109, MW069, MW070, MW071
	VT0368	MW112
	Corner Cook & Bass Rd - Former Petrol Station USTs	MW043, MW061, MW062
	South of Building 55 - Filling Station USTs	MW046, MW047
	Building 49 - Demonstration Building - AST	MW051
	Ward Room Store 102 - AST	MW054
	Up-gradient of former STP	MW003
	Former STP	MW217D ² , MW218
	Off-base to west	MW210
	Off-base to west & up-gradient from on-base sources	MW202

¹ Groundwater wells MW009, MW027, MW066, MW103, MW104, & MW111 were found to be either destroyed or consistently dry during the former OMP monitoring events and are therefore no longer monitored as part of the OMP program from May 2024.

² Nested well.

The screened aquifers of the monitoring well network are presented in **Table 4-4**.

Table 4-4: Monitoring well network screened aquifers

Aquifer	Groundwater Monitoring Wells
Fill (sullage pit)	MW025
Alluvial aquifer	MW212, MW213, MW217S, MW122S
Brighton Group (shallow)	MW001, MW002, MW003, MW017, MW018, MW019, MW028, MW029, MW030, MW031, MW033, MW034, MW036, MW040, MW041, MW043, MW046, MW047, MW051, MW052, MW053, MW054, MW056, MW057, MW058, MW060, MW061, MW062, MW063, MW064, MW065, MW067, MW068, MW069, MW070, MW071, MW073, MW074, MW075, MW102, MW109, MW110, MW112, MW117, MW119, MW121, MW122D, MW201, MW202, MW203, MW204, MW205, MW206, MW207, MW208, MW209, MW210, MW211, MW214S, MW215S
Brighton Group (deep)	MW214D, MW215D, MW217D, MW218

4.3.2 Rationale for groundwater sampling locations

According to the OMP (Aurecon, 2018b), selected bores from the groundwater monitoring network were identified to assess changes in the nature and extent of PFAS plumes associated with the primary PFAS sources on the base. The primary source areas are:

- Former FTG and nearby wetlands along South Creek.
- Fire station and ornamental lake.
- Marina area.
- Closed Rifle Range Road landfill.
- Former STP.
- Sullage pit.

It was proposed that not all groundwater wells are to be sampled, as the bores nominated for sampling would monitor the same groundwater pathway.

Additional bores along the base boundary were selected for sampling to provide ongoing data to evaluate whether PFAS-impacted groundwater was entering the base or is present at locations hydraulically upgradient from PFAS sources on the base. The selection of the bores from the monitoring network is expected to change with future revisions and implementation of the OMP.

4.4 Sampling event summary

This OMR summarises results from the three OMP sampling events completed in December 2023, May and November 2024. Key details of which are provided in **Table 4-5**.

Table 4-5: OMP sampling event summary

Sample event	Sampling period	Locations sampled as part of event	Deviations from OMP SAQP ¹	Sampling event report
E9	30 November to 6 December 2023	28 surface water locations sampled 50 groundwater locations sampled 52 groundwater locations gauged	Yes	Stantec, 2024a
E10	6 to 10 May 2024	30 surface water locations sampled 48 groundwater locations sampled 66 groundwater locations gauged	Yes	Stantec, 2024b
E11	11 to 19 November 2024	32 surface water locations sampled 48 groundwater locations sampled 67 groundwater locations gauged	Yes	JBS&G, 2025

Note:

1. Deviations from the OMP SAQP have been summarised and discussed in the following section.

4.5 Deviations from OMP SAQP

Deviations are not uncommon for reasons of weather conditions, access and safety concerns that inhibit the ability to collect some samples at particular locations. **Table 4-6** provides a summary of these deviations during the reporting period and a summary of the influence on the program (if any). Full detail of deviations for each event is outlined in each of the sampling event reports (SER) provided in **Appendix C**, **Appendix D** and **Appendix E**.

Table 4-6: Deviations from OMP SAQP summary

Sample event	Number of samples not collected	Summary of deviations
E9	Groundwater – 6 Surface water – 5	Deviations relate to: • Groundwater wells were dry (MW009, MW027)¹; • Surface water locations were dry (SW002, SW003, SW030, SW072); • Well destroyed or lost (MW066, MW103, MW104, MW111)¹; • Sampled but unable to gauge (MW069, MW009, MW025, MW027, MW121, MW122D, MS212, MW213); and • Obstructed (e.g. clogged) pipes (SW006).
E10	Groundwater – 2 Surface water - 4	Deviations relate to: • Groundwater well was dry (MW047); • Surface water locations were dry (SW002, SW004, SW021); • Access obscured due to construction activities (MW070); and • Obstructed (e.g. clogged) pipes (SW006).
E11	Groundwater – 2 Surface Water – 3	Deviations relate to: • Groundwater well was dry (MW025); • Surface water locations were dry (SW075, SW021, SW072) and SW075 was collected from a replacement location slightly upgradient; • Surface water locations were collected from Hanns Inlet due to the nominated sample drains being submerged. This occurred at the south and east of the base (SW001, SW003, SW005, SW006, SW007); • Two damaged well monuments which did not prevent sampling (MW017, MW206); • Groundwater well could not be located (MW036); • Non PFAS-free Hydrasleeves or twine present in wells (MW028, MW031, MW203); and • Unreliable field parameters (all surface and groundwater locations). For the locations that could not be sampled, this deviation reduces the spatial coverage of the groundwater monitoring well network between the base and Hanns Inlet.

¹Locations were removed from the SAQP for the subsequent monitoring event and not replaced.

Overall, the deviations from the SAQP (JBS&G 2025) are not considered to influence the findings of the overall program. The data set generated as part of the OMP E9, E10 and E11 events has assisted in monitoring changes in PFAS concentrations at the base and across the former management area. Alongside other PFAS investigations completed at the base such as the DSI (Aurecon, 2018a) and the mass flux study (Stantec, 2024d), a comprehensive CSM has been developed which informs the implementation and revision of the PMAP (Defence, 2018) risk management actions.

5. Quality Assurance and quality control

The OMP SAQP (JBS&G 2024) details quality assurance and quality control (QA/QC) procedures which were implemented to ensure validation of precision and accuracy. JBS&G notes that the program was planned, undertaken and reported based on the seven step data quality objectives (DQO) process outlined in the ASC NEPM. This included data quality indicators and quality assurance and quality control processes that were applied to the conduct of field works undertaken to obtain relevant samples and the data returned from the analytical laboratories for the different media analysed.

An overall data quality review has been completed by the sampling events respective consultants and has been detailed in the SERs provided in **Appendix C, Appendix D and Appendix E.**

Based on the review completed, the analytical results are considered representative of the concentrations within the sample media. It is therefore considered that the QA procedures implemented were acceptable in minimising cross contamination during sampling and transportation to the analytical laboratory. Overall, the data collected during the three sampling events is deemed to be suitable for the purposes of the program.

6. Environmental values and screening criteria

6.1 Environmental values

6.1.1 Groundwater

The screening criteria for PFAS were outlined in the OMP (Aurecon, 2018b) and SAQP (JBS&G, 2024). In Victoria, the section of screening criteria for groundwater is underpinned by the quality of groundwater and potential uses are defined by the environment reference standard (ERS) (Victorian Government, 2021), which sets out environmental values of groundwater to be achieved or maintained, according to the natural salinity.

Groundwater salinity is measured in the field using a water quality meter. The total dissolved solids (TDS) values of groundwater calculated from field EC readings obtained during monitoring was:

- E9 (December 2023): 144 mg/L (MW019) to 30,421 mg/L (MW213).
- E10 (May 2024): 216 mg/L (MW109) to 49,941 mg/L (MW213).
- E11 (November 2024): 3.84 mg/L (MW047) to 59,053 mg/L (MW213).

The high EC values obtained on three occasions at MW213 indicate high reliability maximum TDS values reflective of seawater influence in the Tertiary-aged aquifer. The field EC values obtained in November 2024 are indicative and likely to reflect poor equipment calibration and/or surface water interaction and this is highlighted in the SER.

Historical monitoring data available for the base indicates a mix of fresh and saline groundwater with TDS values ranging from 61.4 mg/L (MW017) to 38,247 mg/L (MW213) (Aurecon, 2018c; Stantec, 2024c) and modelled groundwater salinity ranges from 1,000 to 3,500 mg/L (VVG, 2025). The OMP (Aurecon, 2018b), DSI (Aurecon, 2018a) and Final Condition Report (GHD, 2025) identified the groundwater segment as Segment B and this has been adopted for this OMR.

The environmental values of Segment B groundwater are shown in **Table 6-1** and discussed in the following sections. Environmental values discussed in this report represent the values that are sought to be achieved or maintained in accordance with the ERS and do not represent actual use of groundwater at or surrounding the base which is discussed in **Section 9**.

6.1.2 Surface water

Environmental values of surface water in Victoria are defined in Division 3 of the ERS (Victorian Government Gazette, 2021) according to the surface water type. On-base surface water and receiving water bodies are creeks and marine environments: Hanns Inlet and Western Port Bay.

Three tidal creeks (South, West and East Creek) are surface waters comprising part of the Central Foothills and Coastal Plains segment (specifically, the Coastal Plains segment). Hanns Inlet and Western Port Bay are within the Entrances and North Arm part of the Western Port segment.

The environmental values of base and receiving surface water are shown in **Table 6-1** and discussed in the following sections. Environmental values discussed in this report represent the values that are sought to be achieved or maintained in accordance with the ERS and do not represent actual use of surface water at or surrounding the base which is discussed in **Section 9**.

Table 6-1: Environmental values of groundwater and surface water

Environmental values	Surface water	Segment (TDS mg/L)						
		A1 (0-600)	A2 (601-1,200)	B (1,201-3,100)	C (3,101-5,400)	D (5,401-7,100)	E (7,101-10,000)	F (>10,001)
Water dependent ecosystems and species		✓	✓	✓	✓	✓	✓	✓
Largely unmodified	✓ ¹							
Slightly to moderately modified	✓ ²							
Highly modified								
Human consumption after appropriate treatment	✓ ²³							
Potable water supply – desirable		✓						
Potable water supply – acceptable			✓					
Potable mineral water supply		✓	✓	✓	✓			
Agriculture and Irrigation (irrigation)	✓ ²	✓	✓	✓				
Agriculture and Irrigation (Stock Watering)	✓ ²	✓	✓	✓	✓	✓	✓	
Human consumption of aquatic foods	✓ ¹²							
Industrial and commercial	✓ ¹²	✓	✓	✓	✓	✓		
Water-based recreation (primary contact recreation)	✓ ¹²	✓	✓	✓	✓	✓	✓	✓
Traditional owner cultural values	✓ ¹²	✓	✓	✓	✓	✓	✓	✓
Buildings and structures		✓	✓	✓	✓	✓	✓	✓
geothermal properties		✓	✓	✓	✓	✓	✓	✓
Navigation and shipping	✓ ¹							

Notes: Table reproduced from Table 5.3, 5.5 and 5.6, Part 5 – Waters of ERS (26 May 2021)

✓ Indicates environmental values to be achieved or maintained.

Shading denotes groundwater segment of the environment relevant to the base's aquifers.

mg/L = milligrams per litre

¹ Applies to Hanns Inlet and Western Port Bay (marine waters)

² Applies to inland waters.

³ Subject to conditions related to water use for the catchment.

6.1.3 Summary of environmental values

Table 6-2 summarises whether the environmental values are considered existing, likely/potential or unlikely on and off-base.

Table 6-2: Groundwater and surface water environmental values on- and off-base

Environmental value	On-base			Off-base		
	Existing	Likely/ Potential	Unlikely	Existing	Likely/ Potential	Unlikely
Water -dependent ecosystems and species	✓			✓		
Potable mineral water supply			✓			✓
Agriculture and irrigation (irrigation)			✓	✓		
Agriculture and irrigation (stock watering)			✓		✓	
Industrial and commercial			✓			✓
Water-based recreation (primary contact recreation)			✓	✓		
Traditional owner cultural values	✓			✓		
Buildings and structures	✓			✓		
Geothermal properties			✓			✓

Based on the above, screening criteria have not been adopted for the following environmental values:

- **Human consumption after appropriate treatment and potable mineral water supply:** The base is not a special water supply catchment and effervescence has not been observed in base groundwater.
- **Industrial and commercial use:** Water quality requirements for are highly specific to each application. Groundwater is not utilised for industrial and commercial use on the base and downgradient groundwater is not likely to be utilised for industrial and commercial use due to the groundwater flow direction towards Hanns Inlet.
- **Buildings and structures:** No criteria have been adopted for this environmental value, as PFAS are not expected to impact the buildings and structures environmental value.
- **Geothermal properties:** The region is not known for geothermal energy extraction.
- **Navigation and shipping:** This environmental value refers to the rate of sedimentation and quality of sediment.

It is noted that surface water interacts with groundwater throughout the base and in the immediately surrounding area. As such, the applicable groundwater criteria have also been applied to surface water for the purposes of providing screening criteria for this assessment.

6.1.4 Water dependent ecosystem screening criteria

NEMP 3.0 has adopted trigger values for species protection levels for toxicants, providing guidance for assessment of aquatic ecosystems. Percent species protection levels range from 80% (highly disturbed systems) to 99% (largely unmodified systems). The water bodies on and surrounding the base vary in ecosystem disturbance and modification, and as such different protection levels apply.

Adopted species protection levels and criteria based on water feature are outlined as follows:

- **Off-base constructed stormwater, agricultural or irrigation drains and wetlands:** No species protection is required, as maintenance of environmental values in artificial surface water drains is not a requirement.
- **On-base constructed stormwater drains and wetlands exiting the base towards Hanns Inlet:** 95% species protection adopted as vegetation is generally present in and around the moderately to highly

modified feature which supports a freshwater ecosystem. A 99% species protection is adopted for screening purposes due to bioaccumulation.

- **On and off-base established water bodies (i.e. creeks, wetlands and marine waters):** Groundwater discharges to surface water receptors and surface water migrates to on and off-base creeks, Hanns Inlet and Western Port Bay. The following ecosystem criteria are applicable:
 - Three tidal creeks (South, West and East Creek) are surface waters comprising part of the central foothills and coastal plains segment (specifically, the coastal plains segment). These waters are slightly to moderately modified (ERS, 2021). The Bunyip Basin, within which these creeks are situated, is reported as having short stream lengths and poor to very poor water quality. A 99% level of species protection is applied due to the presence of vegetation around these moderately modified features which support a freshwater ecosystem and to account for bioaccumulation.
 - Hanns Inlet (part of the North Arm of Western Port Bay) surface water is part of the western port segment, entrances and north arm subsegment. The marine feature is largely unmodified, and a 99% marine species protection is adopted for screening purposes due to bioaccumulation.

The 99% level of species protection was adopted for all surface water and groundwater locations for screening purposes.

6.1.5 Agriculture and irrigation (irrigation and stock watering)

There are 40 wells located off-base within 2 km of the boundary registered for domestic and/or stock use as shown on the figure in **Appendix A**. Based on the inferred groundwater flow direction in December 2023, May 2024 and November 2024 which indicate that groundwater flows towards the south-east and discharges into Western Port Bay and Hanns Inlet, the registered bores are not located downgradient of the base, with the exception of WRK125926 and WRK125923 which are located on base and registered for investigation purposes.

A water use survey identified six properties using groundwater for livestock and animal watering and two using groundwater for irrigation (Aurecon, 2018a). In the absence of a published guideline value for stock watering, the drinking water values have been considered as an initial screening value.

6.1.6 Human consumption of aquatic foods

Indicators and objectives are derived from the Food Standards Code (FSC) (FSANZ, 2017). The FSC adopts proposed guidance values which are equivalent to drinking water and recreational water quality guideline values in NEMP 3.0 (HEPA, 2025).

6.1.7 Water-based recreation (primary contact recreation)

Water quality criteria for water-based recreation are provided in NHMRC, 2019. Adopted recreational criteria for the water features are outlined below:

- **On and off-base constructed stormwater, agricultural or irrigation drains and wetlands:** No recreational water quality criteria applied, as maintenance of environmental values in artificial surface water drains is not a requirement; and
- **On and off-base established water bodies (i.e. rivers, creeks, wetlands and marine waters):** Screening criteria have been applied for recreational water use.

6.1.8 Traditional owner cultural values

The application of water quality criteria for traditional owner cultural values is summarised as:

- **On and off-base constructed stormwater, agricultural or irrigation drains and wetlands:** No traditional owner cultural values are applied as maintenance of environmental values in artificial surface water drains is not a requirement.
- **On and off-base established water bodies (i.e. rivers, creeks, lakes and wetlands):** The exposure pathways for drinking water may be relevant to traditional owner cultural values.

6.2 Screening criteria

The screening criteria used for groundwater and surface water in this OMR report are drawn from the PFAS NEMP 3.0 (HEPA, 2025) which references the NHMRC Guidance on PFAS in Recreational Water (2019). The PFAS NEMP 3.0 also references the NHMRC Australian Drinking Water Guidelines (2024) and ANZG (2018). However, the most recent revised versions of these criteria have been adopted in this report: NHMRC Australian Drinking Water Guidelines (2025) and ANZG (2026).

The tier 1 screening criteria adopted to support the environmental values is provided in **Table 6-3**.

Table 6-3: Tier 1 screening criteria for water

Exposure scenario	Adopted screening criteria					
	PFOS	PFHxS	PFOA	PFBS ⁵	Guidance	Original references
	µg/L					
Groundwater and surface water						
Australian Drinking Water Guidelines	0.008	0.03	0.2	1	NHMRC (2025)	
Human health - water based recreation (primary contact)	2 ²	2 ²	10	NC ⁴	HEPA (2025)	NHMRC (2019)
Freshwater/interim marine: high conservation/ecological value systems (99% species protection) ³	0.02	NC	19	NC	Australian and New Zealand Guidelines (ANZG) (2026) guidelines for fresh and marine water quality	-

Notes:

¹ Drinking water screening guidelines have been adopted for agriculture and irrigation (irrigation and stock watering). It is noted that the laboratory limit of reporting (LOR) for PFOS exceeds the drinking water criteria. Drinking water exposure pathways may be relevant to traditional owner cultural values. Although these environmental values are noted to be existing or likely / potential off-base, these environmental values are considered unlikely downgradient/downstream of the base and in Hanns Inlet.

² Criteria also applies for PFOS+PFHxS.

³ The 99% level of protection has been applied for slightly to moderately disturbed ecosystems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. The 99 % protection level has been adopted for surface water and groundwater.

⁴ NC refers to no criteria.

⁵ Perfluorobutane sulphonic acid

6.3 Changes to the screening criteria

As per the SERs provided in **Appendix C**, **Appendix D** and **Appendix E**, the analytical data was screened against relevant tier 1 screening criteria as outlined in the ASC NEPM (2013), NEMP 2.0 (HEPA, 2020) and NEMP 3.0 (HEPA, 2025) to identify if the base risk profile had changed. NEMP 2.0 was in effect at the time of the December 2023 and May 2024 sampling events and NEMP 3.0 was released following the November 2024 sampling event. Screening criteria for this assessment are derived from NEMP 3.0 (HEPA, 2025).

In the sampling event reports for December 2023 and May 2024, groundwater results were not assessed against recreational water criteria for any PFAS, drinking water criteria for PFOS or any criteria for PFHxS. As a result, JBS&G has compared the data from December 2023, May 2024 and November 2024 against the screening criteria in **Section 6.2** and the results are presented in **Section 7**.

7. Monitoring data summary

The following sections detail the rainfall, groundwater and surface water monitoring data collected during the three sampling events between December 2023 and November 2024.

Data from each SER has been extracted from the Defence Esdat. Copies of the SERs are provided in **Appendix C**, **Appendix D** and **Appendix E**.

7.1 Rainfall

7.1.1 Cumulative rainfall departure

The cumulative residual rainfall mass is shown in **Plate 1** for Cerberus (station ID: 086361). This plots the deviation between daily rainfall received and average daily rainfall.

The cumulative rainfall departure (CRD) calculated uses the daily rainfall calculations to determine the average daily rainfall (by month) over the period 2018 to 2024 as shown in **Plate 1**. The CRD then uses the daily rainfall rates compared to the daily average for that month. This date range includes periods of above and below average rainfall and is considered a suitable time period to assess CRD.

Plate 1 indicates generally stable rainfall conditions between 2018 and 2022, with the exception of a drier period around 2019. Higher rainfall was experienced at the end of 2022 before entering a period of declining rainfall which includes the monitoring period (December 2023 to November 2024). This is also shown on **Plate 2** which indicates that below average rainfall occurred in the months prior to the December 2023 and November 2024 sampling events, with significantly higher rainfall was received in the month prior to the May 2024 sampling event.

Further details are provided in **Section 7.1.2**.

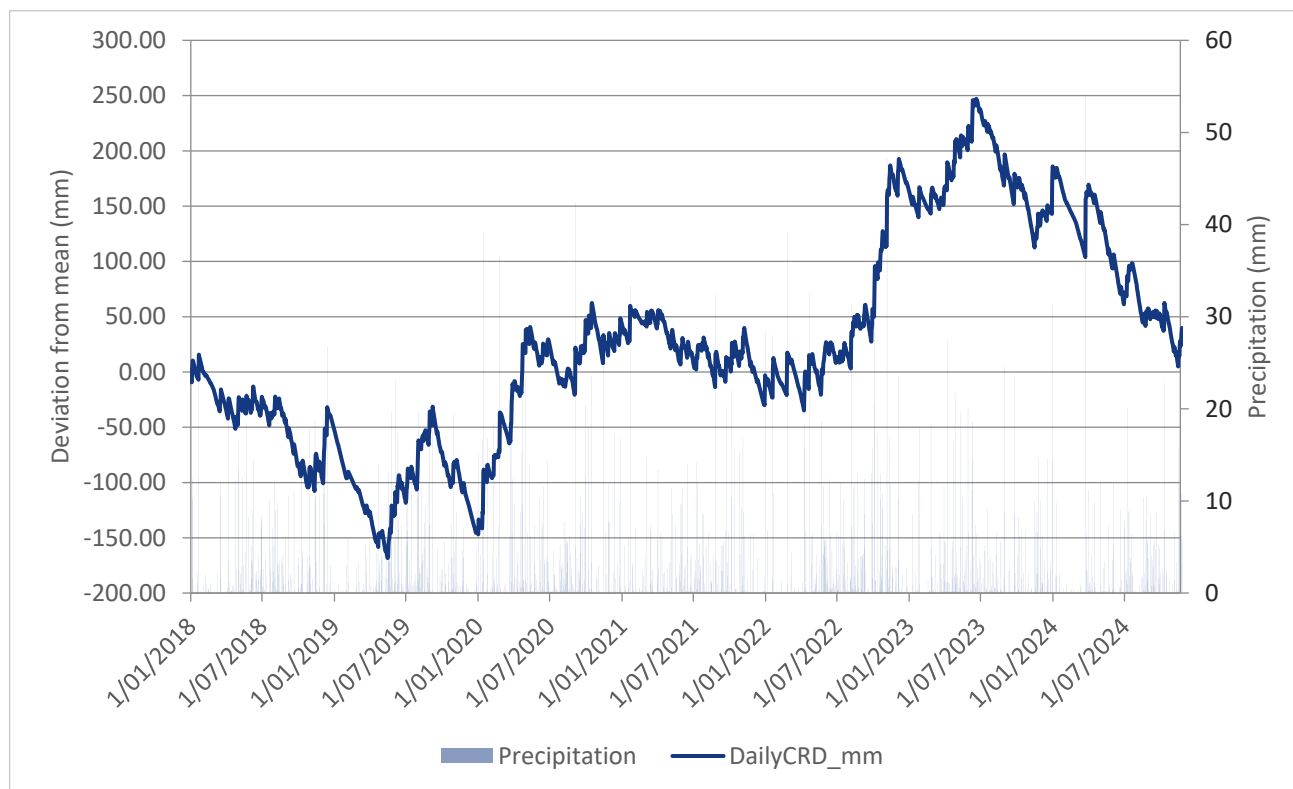


Plate 1: Cumulative rainfall residual (2018 to 2024)

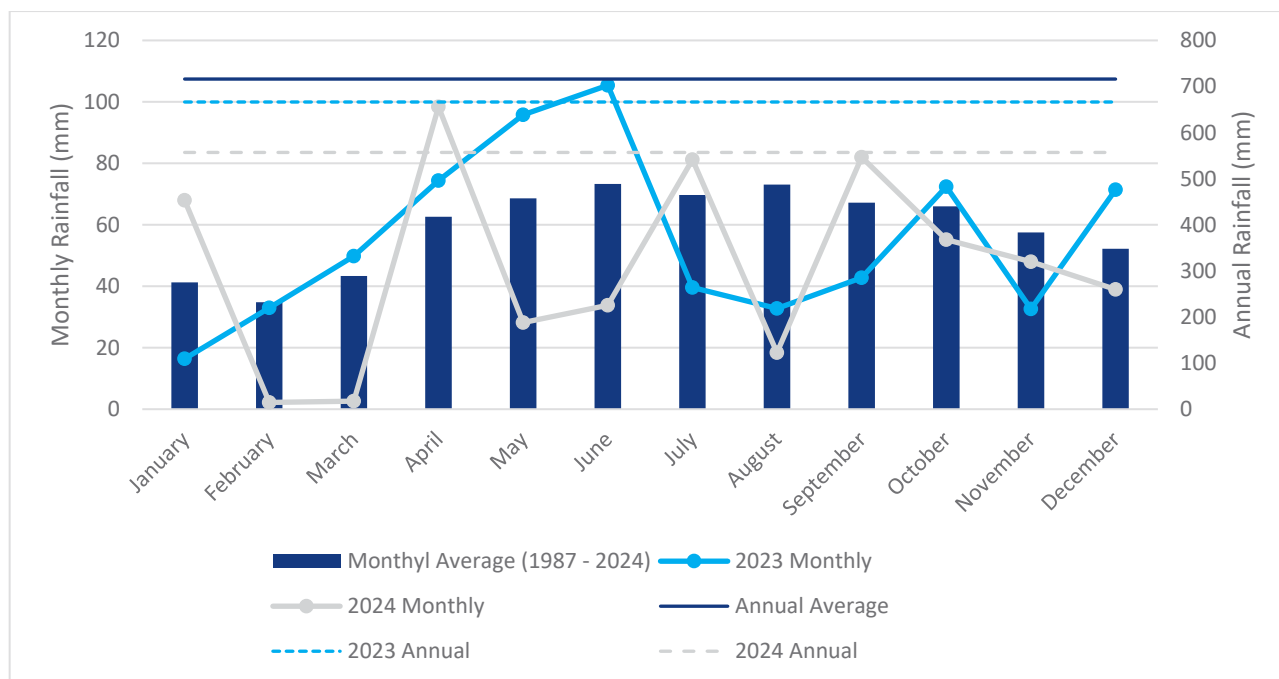


Plate 2: Monitoring period monthly rainfall compared to historical monthly averages

7.1.2 Rainfall received prior to or during sampling events

The OMP (Aurecon, 2018b) and SAQP (JBS&G, 2024) recommends that sampling of surface water occurs during a range of flow conditions such as during extreme rainfall events. Additional surface water monitoring was not conducted outside of the biannual monitoring due to the lack of extreme rainfall events.

Table 7-1 details rainfall occurrence in the region immediately prior to and during the OMP sampling events.

Table 7-1: Rainfall prior to or during sampling events

Sample event	Surface water sampling	Rainfall measurements from closest weather station during sample event ¹
E9	4 to 6 December 2023	19.4 mm of rain was recorded in the seven days prior to the sampling event and 8.8 mm was recorded during the sampling event. The monthly rainfall for November 2023 was 32 mm which was below the historical mean of 75.6 mm.
E10	6 to 10 May 2024	1 mm of rain was recorded in the seven days prior to the sampling event and 12.4 mm of rain was recorded during the sampling event. The rain appears to have occurred overnight prior to the final day of sampling (10 May 2024) however only three surface water locations (SW029, SW030 and SW072) were sampled on the 10 May 2024.
E11	11 to 19 November 2024	8 mm of rain was recorded in the seven days prior to the sampling event and 11.4 mm was recorded during the monitoring event. The monthly rainfall for October 2024 (55 mm) was below the historical mean of 68 mm and the monthly rainfall for November 2024 (48 mm) below the historical mean of 56 mm.

Notes: Rainfall measurements were taken from weather station (Station ID: 086361) located onsite.

Sampling events in December 2023 and November 2024 were completed within seven days of prior rainfall and rainfall also occurred during sampling. The May 2024 sampling event was completed during a drier period with rainfall only occurring prior to the final day of sampling for surface water locations SW029, SW030 and SW072.

Weather limitations have contributed to sampling locations being dry during the monitoring period despite efforts made to sample following rainfall.

7.2 Tidal conditions

The OMP (Aurecon, 2018b) recommends sampling of surface water locations within tidal creeks as the tide in Hanns Inlet is falling to increase the contribution of creek baseflow to the streamflow during sample collection.

Surface water locations influenced by tides are SW017, SW020, SW027, SW028 and SW071 (JBS&G, 2024). The tidal conditions during the monitoring events are summarised in **Table 7-2**.

Table 7-2: Tidal conditions during sampling of tidal creeks

Sample event	Surface water sampling	Tidal conditions during surface water sampling
E9	December 2023	Falling tide (3 locations – SW017, SW027, SW071) Not recorded (2 locations – SW020, SW028)
E10	6 to 10 May 2024	High tide (1 location – SW017) Low tide (1 location – SW027) Not recorded (4 locations – SW020, SW028, SW071)
E11	11 to 19 November 2024	Falling tide (5 locations)

Surface water samples were collected during falling tide in November 2024 at all tidal creek locations, but tidal conditions were variable or not recorded in December 2023 and May 2024.

7.3 Physiochemical field parameters

An overview of field parameters recorded in groundwater and surface water for the monitoring period is summarised in **Table 7-3** and data is provided in **Table 2** and **Table 4**. Discussion regarding the field parameters is provided in **Sections 8.1.1** and **8.2.1** for groundwater and surface water.

Table 7-3: Overview of recorded field parameters

Event	Groundwater ¹	Surface water ¹
E9	pH ranged from 4.5 (acidic) to 8.5 (neutral). DO ranged from 0.4 mg/L (hypoxic) to 7.4 mg/L (aerobic). EC ranged from 225.2 μ S/cm (fresh) to 47,534 μ S/cm (saline) with calculated TDS of 144 mg/L to 30,421 mg/L.	pH ranged from 5.99 (acidic) to 9.56 (alkaline). DO ranged from 0.01 mg/L (hypoxic) to 9.59 mg/L (aerobic). EC ranged from 335 μ S/cm (fresh) to 55,723 μ S/cm (seawater) with calculated TDS of 214 mg/L to 35,663 mg/L.
E10	pH ranged from 4.74 (acidic) to 7.95 (neutral). DO ranged from 0.33 mg/L (hypoxic) to 5.64 mg/L (aerobic). EC ranged from 337 μ S/cm (fresh) to 78,033 μ S/cm (seawater) with calculated TDS of 216 mg/L to 49,941 mg/L.	pH ranged from 6.26 to 8.44 (neutral). DO ranged from 1.65 mg/L (hypoxic) to 6.49 mg/L (aerobic). EC ranged from 163 μ S/cm (fresh) to 92,026 μ S/cm (seawater) with calculated TDS of 99 to 58,896 mg/L.

Event	Groundwater ¹	Surface water ¹
E11	pH ranged from 4.23 (acidic) to 6.83 (neutral). DO ranged from 0.89 mg/L (anoxic) to 10.98 mg/L (aerobic). EC ranged from 6 µS/cm (fresh) to 92,270 µS/cm (seawater) with calculated TDS of 3.9 mg/L to 59,053 mg/L.	pH ranged from 6.17 to 7.84 (neutral). DO ranged from 1.75 mg/L (anoxic) to 9.07 mg/L (aerobic). EC ranged from 11 µS/cm to 94,278 µS/cm with calculated TDS of 6.8 mg/L to 60,338 mg/L.

¹TDS (mg/L) is calculated by multiplying EC (µS/cm) by a factor of 0.64.

7.4 Groundwater

7.4.1 Groundwater elevations

Groundwater elevations for the three sampling events are summarised in **Table 7-4** with changes from the prior sampling event outlined in **Table 7-5**. Groundwater elevation contour plots are presented in **Figures 4 to 6** and discussion regarding groundwater elevation provided in **Section 8.1.2**.

Table 7-4: Summary of groundwater elevation

Event	Groundwater elevation range (mAHD)		
	Tertiary-aged aquifer	Shallow Brighton group	Deep Brighton group
E9	1.40 to 2.03	0.07 to 9.32	2.99 to 3.21
E10	1.32 to 1.45	-1.05 to 10.42	2.66 to 3.01
E11	1.14 to 1.82	-0.63 to 8.02	2.76 to 3.10

The changes in groundwater elevation during the monitoring period are summarised in **Table 7-5**.

Table 7-5: Average change in groundwater depth

Sampling interval	Average change in groundwater depth (m) for each aquifer		
	Tertiary aquifer	Shallow Brighton group	Deep Brighton group
December 2023 to May 2024	-0.21	0.017	-0.36
May 2024 to November 2024	1.42	-0.17	0.13

7.4.2 Screening criteria exceedances

Groundwater primary results for the December 2023 to November 2024 period have been compared to relevant criteria in **Table 3** and exceedances are summarised in **Table 7-6**. A discussion of the results in the context of the overall program is provided in **Section 8**.

Table 7-6: Summary of groundwater analytical results exceedances

Analyte	Conc. range (µg/L)	Summary of groundwater analytical results
Tertiary-aged aquifer (MW212, MW213 and MW122S)		
PFOS	0.16 to 44.2	MW212 exceeded recreational criteria. All wells exceeded drinking water criteria. All wells exceeded ecological criteria.
PFHxS	0.31 to 11	MW212 and MW213 exceeded recreational criteria. MW122S, MW212 and MW213 exceeded drinking water criteria.
PFOA	<LOR to 0.76	MW212 and MW213 exceeded drinking water criteria.
PFOS+PFHxS	0.47 to 50.6	MW212 and MW213 exceeded recreational criteria. All wells exceeded drinking water criteria.
Shallow Brighton group aquifer (52 wells)		
PFOS	<LOR to 44.7	MW017, MW067, MW075, MW121 and MW215S exceeded recreational criteria. In addition to the aforementioned wells, MW028, MW029, MW030, MW041, MW046, MW047, MW051, MW061, MW062, MW064, MW068, MW074, MW075, MW102, MW109, MW110, MW121 and MW214S exceeded ecological criteria. In addition to the aforementioned wells, MW018, MW019, MW033, MW043, MW046, MW070 and MW071 exceeded drinking water criteria.
PFHxS	<LOR to 75.5	MW017, MW067, MW070, MW074, MW075, MW121 and MW215S exceeded recreational criteria. In addition to the aforementioned wells, MW018, MW019, MW028, MW029, MW036, MW041, MW047, MW051, MW054, MW061, MW062, MW064, MW068, MW071, MW075, MW102, MW110, MW121 and MW214S exceeded drinking water criteria.
PFOA	<LOR to 2.63	MW017, MW019, MW028, MW047, MW061, MW062, MW067, MW070, MW074, MW075, MW110, MW121 and MW215S exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 108	MW017, MW067, MW070, MW074, MW075, MW121, and MW215S exceeded recreational criteria. In addition to the aforementioned wells, MW018, MW019, MW028, MW029, MW030, MW036, MW041, MW046, MW047, MW051, MW054, MW061, MW062, MW064, MW068, MW069, MW071, MW075, MW102, MW109, MW110, and MW214S exceeded drinking water criteria.
PFBS	<LOR to 9.58	MW067, MW074, MW075, MW121 and MW215S exceeded drinking water criteria.
Deep Brighton group aquifer (MW214D, MW215D, MW217D, MW218)		
PFOS	<LOR to 0.51	MW217D exceeded drinking water criteria. In addition to the aforementioned wells, MW214D and MW215D exceeded ecological criteria.
PFHxS	<LOR to 2.33	MW215D exceeded recreational criteria. MW214D and MW215D exceeded drinking water criteria.
PFOA	<LOR to 0.11	MW215D exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 2.82	MW215D exceeded recreational criteria. MW214D and MW215D exceeded drinking water criteria.
Sullage pit (MW025)		
PFOS	3.12 to 4.32	MW025 exceeded drinking water, recreational and ecological criteria.
PFHxS	0.69 to 0.75	MW025 exceeded drinking water criteria.
PFOA	0.06	MW025 exceeded drinking water criteria.
PFOS+PFHxS	4.25 to 5.07	MW025 exceeded drinking water and recreational criteria.

7.4.3 Comparison with historical concentrations

Groundwater concentrations recorded between December 2023 and November 2024 were compared with the historical concentration range (maximum and minimum) for each location.

Concentrations of PFAS in groundwater wells outside of the historical range are summarised in **Table 7.7**.

No order of magnitude increases or decreases were recorded except for increases at MW214S and MW218. No new detections of PFHxS, PFOS and PFOA were reported except for PFOA at MW071.

Table 7-7: Groundwater concentration deviations from historical maximum and minimum using all available data (source: Defence Esdat) ^{1 2}

Well ID	New Maximum or Minimum	PFHxS		PFOS		PFOA		PFOS+PFHxS	
		Concentrations (OMR Period) (µg/L)	Historical Concentrations	Concentrations (OMR Period) (µg/L)	Historical Concentrations	Concentrations (OMR Period) (µg/L)	Historical Concentrations	Concentrations (OMR Period) (µg/L)	Historical Concentrations
MW018	Maximum	0.08 - 0.13	0.01 - 0.11	0.01 - 0.02	0.002 - 0.05	<LOR	<LOR	0.08 - 0.15	0.029 - 0.16
MW019	Minimum	<LOR - 0.08	0.11 - 0.45	<LOR - 0.02	0.004 - 0.07	<LOR - 0.02	<LOR - 0.17	<LOR - 0.1	0.13 - 0.46
MW025	Maximum	0.69 - 0.75	0.59 - 0.9	3.56 - 4.32	0.76 - 3.84	0.06 - 0.06	0.05 - 0.065	4.25 - 5.07	1.54 - 4.74
MW028	Maximum and Minimum	0.31 - 1.34	0.37 - 2.09	0.32 - 0.66	0.02 - 0.65	0.02 - 0.07	0.039 - 0.11	0.63 - 2.00	0.68 - 2.59
MW043	Maximum	<LOR	<LOR - 0.005	0.01	0.002	<LOR	0.001 - 0.03	0.01	0.007
MW054	Maximum and Minimum	0.19 - 0.29	0.002 - 0.24	<LOR	0.001	<LOR	<LOR	0.19 - 0.29	0.001 - 0.24
MW063	Maximum	0.02 - 0.03	0.01 - 0.02	<LOR	<LOR	<LOR	<LOR	0.02 - 0.03	0.01 - 0.02
MW067	Maximum and Minimum	50 - 83	38.9 - 62.8	1.9 - 5.34	2.58 - 7.89	2 - 2.63	1.53 - 2.37	51.9 - 85.5	41.5 - 66.9
MW070	Maximum and Minimum	3 - 4.27	3.6 - 5.41	0.01	0.02 - 0.06	0.08 - 0.12	0.05 - 0.07	3 - 4.28	3.66 - 5.43
MW071	Maximum	0.3 - 0.51	0.25 - 0.47	0.01	0.01	0.01 - 0.02	<LOR	0.3 - 0.51	0.25 - 0.47
MW074	Maximum and Minimum	3.27 - 4.2	3.05	0.23 - 0.57	0.7	0.14 - 0.2	0.15	3.84 - 4.43	3.75
MW075	Maximum	1.6 - 2.41	1.2	1.22 - 2.83	0.68 - 0.68	0.09 - 0.15	0.08	2.87 - 5.24	1.88
MW102	Minimum	0.06 - 0.11	0.12 - 0.29	0.34 - 0.48	0.26 - 1	0.01 - 0.02	0.01 - 0.02	0.4 - 0.59	0.55 - 1.24
MW110	Minimum	0.02 - 0.48	0.15 - 0.68	0.02 - 0.04	0.01 - 0.05	0.01 - 0.04	0.01 - 0.04	0.05 - 0.5	0.18 - 0.682
MW121	Minimum	1.25 - 11.3	2.7 - 54.7	1.5 - 20.9	13 - 64	0.12 - 1.27	0.34 - 4.56	3.8 - 32.2	15.7 - 96.2
MW212	Minimum	4.6 - 7.02	7.61 - 15.4	21 - 44.2	20.4 - 47	0.39 - 0.69	0.76 - 1.28	25.6 - 50.6	33.9 - 58

Well ID	New Maximum or Minimum	PFHxS		PFOS		PFOA		PFOS+PFHxS	
		Concentrations (OMR Period) (µg/L)	Historical Concentrations	Concentrations (OMR Period) (µg/L)	Historical Concentrations	Concentrations (OMR Period) (µg/L)	Historical Concentrations	Concentrations (OMR Period) (µg/L)	Historical Concentrations
MW213	Maximum and Minimum	6.7 - 11	8.36 - 16.7	0.35 - 0.71	0.28 - 1.86	0.45 - 0.75	0.45 - 0.73	7.05 - 11.6	9.04 - 18.6
MW214D	Minimum	0.08 - 0.09	0.16 - 6.57	0.19 - 0.23	0.22 - 14	<LOR	0.01 - 0.36	0.28 - 0.31	0.38 - 20
MW214S	Maximum	0.2	0.005 - 0.006	0.04	0.003	<LOR	<LOR	0.24	0.008 - 0.009
MW215D	Minimum	2.1 - 2.33	1.82 - 5.4	0.36 - 0.49	0.39 - 3.1	0.09 - 0.11	0.07 - 0.26	2.46 - 2.82	2.21 - 8.5
MW215S	Maximum	21 - 63.2	12 - 51.1	12 - 44.7	5.04 - 35	0.99 - 2.61	0.48 - 2.97	33 - 108	17.6 - 80.1
MW218	Maximum	<LOR	0.001 - <LOR	<LOR - 0.01	0.001 - <LOR	<LOR	<LOR	<LOR - 0.01	0.001 - <LOR

¹Orange cells indicate deviation from historical concentration maximum, green cell indicates deviation from historical minimum and blue cell indicates deviation from both historical maximum and minimum.

²Blue text indicates first-time detection.

³Yellow text indicates order of magnitude increase. Note MW214S was not sampled between April 2018 and November 2024.

PFAS concentrations above the historical maximum were recorded at 15 groundwater wells and concentrations below the historical minimum were recorded at 13 groundwater locations. Further discussion is provided in **Section 8.1.3**.

Groundwater monitoring wells with no primary sample PFAS detections or recent exceedances of screening criteria between December 2023 and November 2024 are summarised in **Table 7-8**. Review of this data has been undertaken to assess the relative importance of these monitoring locations in terms of the CSM, and whether removal or reduction in sampling frequency may be justified for these locations in the context of the site setting and potential risk.

Table 7-8: Date of last exceedance in groundwater before December 2023

Monitoring well	Date of last exceedance	Highest historical concentration of PFAS (µg/L)	Highest concentration of PFAS between December 2023– November 2024 (µg/L)	Location
MW003	No exceedances	PFOS: 0.001	<LOR	Upgradient; eastern base boundary
MW034	May 2020	PFHxS: 0.04	<LOR	East of base, adjacent to Hanns Inlet
MW063	No exceedances	PFHxS: 0.03	PFHxS: 0.03	East of former FTG
MW112	May 2022	PFOS: 0.01 PFHxS: 0.01	<LOR	Upgradient of closed rifle range landfill
MW117	May 2020	PFHxS: 0.02	PFHxS: 0.01	West of former FTG
MW122D	November 2022	PFOS: 0.03	<LOR	South Creek
MW202	No exceedances	PFOS: 0.001	<LOR	180m east of western base boundary
MW204, MW206, MW208, MW209, MW210	No exceedances	-	<LOR	Northern, eastern and western base boundary
MW207	November 2020	PFOA: 0.03	<LOR	Eastern base boundary

7.4.4 Trend analysis

Mann-Kendall trend analysis results for groundwater wells in the former FTG area and the remainder of the base are discussed separately in the sections below. For locations with ≥ 80% of sampling events yielding non-detect for PFAS, the results have been summarised as ‘low or non-detect’ or ‘non-detect’ and trend analysis results are not presented.

Former FTG

Mann-Kendall trend analysis results for groundwater wells in the former FTG area are presented in this section. Rainfall recharging directly to the open excavation during construction of the containment cell could have mobilised residual PFAS into the shallow Brighton group aquifer. The likelihood of PFAS leaching from the former FTG and containment cell has been substantially reduced following the construction of a cap and liner. As such, Mann-Kendall trend analysis was conducted for the post clean-up period (November 2022 to November 2024) based on the following sequence of clean-up activities:

- Pre-clean-up - prior to 2020 when demolition of the former FTG commenced.
- During clean-up - the opportunistic clean-up period during which the below activities were conducted. These activities are described in detail by others (GHD, 2025; Stantec, 2024c):
 - o Demolition of above ground structures, concrete slab and foundations which commenced in 2020.
 - o Excavation of PFAS impacted soil including placement in temporary stockpiles to the west of the former FTG.

- o Construction of containment cells, backfilling with excavated material and construction of engineered containment cell cap which was completed by May 2022 (WSP, 2023).
- Post-clean-up – November 2022 to present.

Table 7-9 summarises the trend analysis and outputs are presented in **Appendix F. Table 7-9**, also provides the maximum concentrations of PFHxS and PFOS in the OMR period.

Trend analysis for pre- and during-clean-up timesteps have not been conducted as this is not the focus of this report. Five sampling events were conducted post-clean-up for wells in the vicinity of the former FTG.

Table 7-9: Mann-Kendall trend analysis results: Former FTG - post-clean-up

Well ID	Maximum concentration in OMR period (December 2023 to November 2024) (µg/L)		Mann-Kendall trend ^{1 2}			Well location with respect to former FTG
	PFHxS	PFOS	PFHxS	PFOS	PFOA	
MW064	0.25	0.56	No trend	Stable	Stable	Upgradient
MW074	4.2	0.57	Increasing	Decreasing	No Trend	Source area
MW075	2.41	2.83	No Trend	No Trend	No Trend	
MW063	0.03	<LOR	Probably Increasing	Non-detect	Non-detect	Cross-gradient
MW117	0.01	<LOR	Low or non-detect	Low or non-detect	Non-detect	
MW017	11.3	2.2	Stable	Stable	No Trend	Downgradient
MW018	0.13	0.02	No Trend	Low or non-detect	Non-detect	
MW067	83	5.34	No Trend	Stable	No Trend	
MW214D	0.09	0.23	Stable	Stable	Low or non-detect	Downgradient
MW215S	63.2	44.7	Stable	No Trend	Stable	Source area
MW215D	2.33	0.49	Stable	Decreasing	No Trend	
MW121	11.3	20.9	No Trend	No Trend	No Trend	Downgradient - South Creek
MW122D	<LOR	<LOR	Non-detect	Low or non-detect	Low or non-detect	Wetlands
MW122S	0.54	0.32	Insufficient data points			
MW212	7.02	44.2	Decreasing	Stable	Decreasing	
MW213	11	0.71	Stable	No Trend	Stable	
MW030	0.02	0.03	Decreasing	Decreasing	Non-detect	Downgradient - South Creek

¹Trends assigned based on the following rules:

Confidence factor (CF) > 95%: Increasing or Decreasing

90% ≤ CF ≤ 95%: Probably Increasing or Decreasing

CF < 90%: No Trend

CF < 90% and Coefficient of Variation (COV) < 1: Stable

Where ≥ 80% of results reported below LOR: reported as low or non-detect

²Grey shaded cells represent locations where the PFAS concentrations were stable (based on Mann-Kendall analysis), low or not detected based on the LOR adopted for analysis.

Remainder of the base – minor source areas

Trend analysis outcomes for the remainder of the base is presented in **Table 7-10** and outputs are presented in **Appendix F**. All available data has been included in the Mann-Kendall analysis. Unlike areas downgradient of the former FTG, step-changes in concentrations are not expected at other parts of the base.

Table 7-10: Mann-Kendall trend analysis results – other areas

SW ID	Maximum concentration in the OMR period (December 2023 to November 2024) (µg/L)		Mann-Kendall trend ^{1 2}		
	PFHxS	PFOS	PFHxS	PFOS	PFOA
MW003	<LOR	<LOR	Non-detect	Non-detect	Non-detect
MW019	0.08	0.02	Decreasing	No Trend	Decreasing
MW025	0.75	4.32	Stable	Increasing	No Trend
MW028	1.34	0.66	Stable	No Trend	Prob. Decreasing
MW029	0.09	0.03	Stable	No Trend	Stable
MW033	0.02	0.01	Prob. Decreasing	Stable	No Trend
MW034	<LOR	<LOR	Decreasing	No Trend	Non-detect
MW036	0.05	<LOR	Decreasing	Low or non-detect	Low or non-detect
MW041	0.37	0.03	No Trend	Stable	No Trend
MW043	<LOR	0.01	Low or non-detect	Low or non-detect	Low or non-detect
MW046	0.03	0.05	Stable	No Trend	Stable
MW047	0.11	0.12	Decreasing	Stable	Stable
MW051	0.086	0.08	No Trend	Decreasing	Decreasing
MW054	0.29	<LOR	Increasing	Low or non-detect	Non-detect
MW061	0.25	0.07	Decreasing	Prob. Decreasing	Stable
MW062	0.29	0.07	Stable	No Trend	Decreasing
MW064	0.25	0.56	No Trend	Stable	Stable
MW067	83	5.34	No Trend	Stable	No Trend
MW068	0.24	0.17	Stable	Stable	Stable
MW069	0.04	<LOR	No Trend	No Trend	Non Detect
MW070	4.27	0.01	Stable	Decreasing	Increasing
MW071	0.51	0.01	No Trend	Stable	Prob. Increasing
MW075	2.41	2.83	No Trend	No Trend	No Trend
MW102	0.11	0.48	Decreasing	Stable	Stable
MW109	0.04	0.06	No Trend	Increasing	Increasing
MW110	0.48	0.04	Decreasing	No Trend	Decreasing
MW112	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW202	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW204	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW206	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW207	<LOR	<LOR	Low or non-detect	Low or non-detect	Decreasing
MW208	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW209	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW210	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
MW217D	0.019	0.02	No Trend	Stable	Stable
MW218	<LOR	0.01	Low or non-detect	Stable – Low or Non Detect	Low or non-detect

¹Trends assigned based on CF and CoV. Refer to footnote of **Table 7-9**.

²Grey shaded cells represent locations where the PFAS concentrations were stable (based on Mann-Kendall analysis), low or not detected based on the LOR adopted for analysis.

7.4.5 Impact of rainfall on PFAS concentrations

To further evaluate the potential impact of climatic events on concentrations in groundwater, a linear-regression model was completed using ProUCL v5.2 for groundwater wells that have reported PFOS+PFHxS concentrations above 2 µg/L. This was chosen as a threshold to assess locations with the highest concentrations. Concentrations of PFOS+PFHxS were considered against the sum of precipitation in the 20 days prior to sampling to account for infiltration of rain into the aquifer.

The relevant output parameters, linear-regression graphs and output tables are provided in **Appendix H** and **Appendix G**.

7.5 Surface water

7.5.1 Surface water flow directions

Surface water flow conditions were recorded for each sampling event and ranged from no flow to high flow.

7.5.2 Screening criteria exceedances

Surface water primary analytical results for the December 2023 to November 2024 period are tabulated in comparison to screening criteria in **Table 5** and summarised in

Table 7-11. A discussion of the results is provided in **Section 8**.

Table 7-11: Summary of surface water analytical results

Analyte	Conc. range (µg/L)	Summary of surface water analytical results
Drains discharging to Hanns Inlet (SW001, SW002, SW003, SW005, SW006)		
PFOS	<LOR to 0.30	All locations except SW003 exceeded ecological criteria.
PFOA	<LOR	No exceedances.
PFHxS	<LOR to 0.07	SW005 exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 0.34	SW001 and SW005 exceeded the drinking water criteria.
PFBS	<LOR	No exceedances.
Drains discharging into either base tidal creeks or directly into Hanns Inlet and former STP lagoons (SW009, SW010, SW014, SW015, SW016, SW018, SW019, SW029, SW030, SW057, SW090)		
PFOS	<LOR to 7.56	SW014, SW015, SW016 and SW057 exceeded recreational criteria. In addition to the aforementioned locations, SW010, SW018, SW029, SW030 and SW090 exceeded ecological criteria. In addition to the aforementioned locations, SW019 exceeded drinking water criteria (all locations except SW009).
PFOA	<LOR to 1.1	SW014, SW015, SW016, SW029 and SW057 exceeded drinking water criteria.
PFHxS	<LOR to 3.1	SW014 and SW057 exceeded recreational criteria. In addition to the aforementioned locations, SW010, SW015, SW016, SW018, SW029 exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 10.1	SW014, SW015, SW016 and SW057 exceeded recreational criteria. In addition to the aforementioned locations, SW010, SW018, SW029, SW030 and SW090 exceeded drinking water criteria.
PFBS	<LOR to 0.57	No exceedances
Surface Water Inflows – Drains Discharging to the base (SW021 to SW024)		
PFOS	<LOR to 0.06	SW021 exceeded ecological criteria.

Analyte	Conc. range (µg/L)	Summary of surface water analytical results
PFOA	<LOR to 0.01	No exceedances.
PFHxS	<LOR to 0.10	SW021 exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 0.16	SW021 exceeded drinking water criteria.
PFBS	<LOR	No exceedances.
Tidal Creeks Discharging into Hanns Inlet (SW017, SW020, SW027, SW028)		
PFOS	<LOR to 0.33	All locations exceeded ecological criteria with the exception of SW020. All locations exceeded drinking water criteria.
PFOA	<LOR to 0.02	No exceedances.
PFHxS	<LOR to 0.21	SW017, SW027 and SW028 exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 0.42	SW017, SW027 and SW028 exceeded drinking water criteria.
PFBS	<LOR to 0.02	No exceedances
Hanns Inlet (SW071)		
PFOS	<LOR	No exceedances.
PFOA	<LOR	No exceedances.
PFHxS	<LOR	No exceedances.
PFOS+PFHxS	<LOR	No exceedances.
PFBS	<LOR	No exceedances.
Fire Training Ground (SW072)¹		
PFOS	0.20	Exceeded ecological and drinking water criteria.
PFOA	<LOR	No exceedance.
PFHxS	0.05	Exceeded drinking water criteria.
PFOS+PFHxS	0.25	Exceeded drinking water criteria.
PFBS	<LOR	No exceedances.
Drains discharging into either base tidal creeks (SW073 to SW077) or directly into Hanns Inlet (SW078) (replacement locations)		
PFOS	<LOR to 0.09	SW073 and SW078 exceeded ecological criteria. In addition to the aforementioned locations, SW077 exceeded drinking water criteria.
PFOA	<LOR	No exceedances.
PFHxS	<LOR to 0.10	SW073, SW077 and SW078 exceeded drinking water criteria.
PFOS+PFHxS	<LOR to 0.14	All locations exceeded drinking water criteria.
PFBS	<LOR to 0.02	No exceedances.

¹Surface water data only available for May 2024 as this location was dry in December 2023 and November 2024.

7.5.3 Comparison with historical concentrations

Concentrations of PFAS in surface water outside of the historical range are summarised in **Table 7-12**. No order of magnitude increases or decreases were recorded. No new detections of PFHxS, PFOS and PFOA were reported.

Table 7-12: Surface water deviations from historical range of concentrations

Surface water ID	New maximum or minimum	PFHxS		PFOS		PFOA		PFOS+PFHxS	
		Concentration (OMR period) (µg/L)	Historical Concentration	Concentration (OMR period) (µg/L)	Historical concentrations	Concentration (OMR period) (µg/L)	Historical concentrations	Concentration (OMR period) (µg/L)	Historical concentration
SW075	Maximum	0.01 - 0.03	0.01 - 0.04	0.01 - 0.06	0.02 - 0.04	<LOR	<LOR	0.01 - 0.09	0.03 - 0.08

¹Red cell indicates deviation from historical concentration maximum.

Concentrations above the historical maximum were reported at one location (SW075). These increases were less than one order of magnitude. No concentrations below the historical minimum were reported.

Surface water monitoring locations with no primary sample PFAS detections or exceedances of screening criteria between December 2023 and November 2024 are presented in **Table 7-13**. Review of this data has been undertaken to assess the relative importance of these monitoring locations in terms of the CSM, and whether removal or reduction in sampling frequency may be justified for these locations in the context of the site setting and potential risk.

Table 7-13: Date of last exceedance in surface water before December 2023

Sample ID	Date of last detection	Highest historical concentration of PFAS (µg/L)	Highest concentration of PFAS between December 2023 – November 2024 (µg/L)	Location
SW003	August 2017	PFOS: 0.017	<LOR	Drain entering Hanns Inlet from east of base
SW007	November 2022	PFHxS: 0.02	<LOR	
SW009	November 2022	PFOS: 0.95	<LOR	East Creek, east (downgradient) of the operational area
SW022	May 2022	PFOS: 0.08	<LOR	South Creek, upgradient of base
SW024	November 2021	PFOS: 0.05	<LOR	
SW071	None	<LOR	<LOR	Hanns Inlet
SW076	May 2023	PFHxS: 0.11	<LOR	Drain entering East Creek from base

7.5.4 Impact of rainfall on PFAS concentrations

To evaluate the potential impact of rainfall on PFAS in surface water, concentrations of PFOS+PFHxS from May 2023 to November 2024 were compared to the sum of rainfall in the two days prior to sampling (**Appendix G**). This date range was utilised as it includes the monitoring period (December 2023 to November 2024) and an additional prior data point to assist with interpretation of correlation between surface water concentrations and rainfall.

The graphs indicate that at most locations, except for SW004, SW028 and SW074, concentrations of PFOS+PFHxS are generally consistent and do not appear to be impacted by rain events. SW004 and SW028 reported increased concentrations following rain events and SW074 reported lower PFOS+PFHxS following rainfall events. The outcomes of this analysis are discussed in **Section 8.2.5**.

7.5.5 Trend analysis

Mann-Kendall trend analysis was performed for surface water locations that do not indicate a response to rainfall. Trend analysis was not performed for SW004, SW028 and SW074 as these locations exhibit short-term response to rainfall (discussed in **Section 7.5.4**) and trend analysis would yield an unreliable result. Trend analysis includes all available results and is not confined to the monitoring period or post-clean-up phase. For locations with ≥ 80 % of sampling events yielding non-detect for PFAS, the results have been summarised as 'low or non-detect' or 'non-detect' and trend analysis results are not presented. Results for surface water are presented in **Table 7-14** and Mann-Kendall analysis outputs are presented in **Appendix F**.

Table 7-14: Mann-Kendall trend analysis for surface water

Sample ID	Maximum concentration in the OMR period (December 2023 to November 2024) (µg/L)			Mann-Kendall trend ^{1 2}		
	PFHxS	PFOS	PFOA	PFHxS	PFOS	PFOA
SW001	<LOR	0.03	<LOR	Low or non-detect	Stable	Low or non-detect
SW002	<LOR	0.04	<LOR	No Trend	No Trend	Low or non-detect
SW003	<LOR	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
SW005	0.07	0.3	<LOR	No Trend	No Trend	Low or non-detect
SW006	<LOR	0.03	<LOR	Decreasing	No Trend	Low or non-detect
SW007	<LOR	<LOR	<LOR	Stable - non-detect	Stable - non-detect	Low or non-detect
SW009	<LOR	<LOR	<LOR	Low or non-detect	Decreasing	Low or non-detect
SW010	0.09	0.26	0.01	Stable	No Trend	No Trend
SW014	3.0	7.56	1.1	Increasing	Prob. Increasing	Increasing
SW015	1.9	2.44	0.90	Stable	Decreasing	Stable
SW016	1.74	3.28	0.85	Stable	Stable	Stable
SW017	0.06	0.06	0.02	No Trend	No Trend	No Trend
SW018	0.07	0.03	<LOR	Decreasing	Decreasing	Prob. Decreasing
SW019	0.03	0.02	<LOR	Prob. Decreasing	Decreasing	Prob. Decreasing
SW020	<LOR	0.01	<LOR	Low or non-detect	Stable	Low or non-detect
SW021	0.10	0.06	<LOR	Stable	No Trend	No Trend
SW022	<LOR	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
SW023	<LOR	0.02	<LOR	Low or non-detect	Stable	Low or non-detect
SW024	<LOR	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
SW027	0.21	0.21	<LOR	No Trend	Decreasing	Low or non-detect
SW028	0.15	0.33	<LOR	No Trend	No Trend	Low or non-detect
SW029	0.12	0.32	0.06	No Trend	No Trend	No Trend
SW030	0.06	0.21	0.02	Stable	No Trend	Stable
SW057	3.1	3.65	1.1	Stable	Stable	Stable
SW071	<LOR	<LOR	<LOR	Low or non-detect	Low or non-detect	Low or non-detect
SW072	0.05	0.20	<LOR	No Trend	No Trend	No Trend
SW073	0.04	0.09	<LOR	No Trend	No Trend	Low or non-detect
SW074	0.1	0.04	<LOR	Decreasing	Decreasing	Low or non-detect
SW075	0.03	0.06	<LOR	Decreasing	Stable	Low or non-detect
SW076	<LOR	<LOR	<LOR	Decreasing	Prob. Decreasing	Low or non-detect
SW077	0.08	0.02	0.1	Decreasing	Decreasing	Decreasing
SW078	0.04	0.03	<LOR	Prob. Decreasing	Decreasing	Stable - low or non-detect
SW090	0.07	0.08	<LOR	Insufficient data		
SW080	<LOR	0.02	<LOR	Stable - non-detect	Stable - low or non-detect	Stable - non-detect

¹Trends assigned based on CF and CoV. Refer to footnote of **Table 7-9**.

²Grey shaded cells represent locations where the PFAS concentrations were stable (based on Mann-Kendall analysis), low or not detected based on the LOR adopted for analysis.

8. Discussion

This section provides a discussion on the results of the three OMP sampling events in the context of the broader PMAP program.

It is noted that where PFBS concentrations exceeded the ADWG, PFOS and PFHxS also exceeded the ADWG (and in the case of PFOS by a factor significantly higher than for PFBS). As a result, exceedances of the ADWG for PFBS do not alter the risk profile and are not discussed in subsequent sections of the report.

8.1 Groundwater

8.1.1 Field parameters

High salinity in groundwater in the tidal wetlands of South Creek and east of the operational part of the base (adjacent to Hanns Inlet) indicates that it is tidally influenced and directly connected to surface water. Groundwater was fresh to slightly saline at all other shallow and deep groundwater monitoring wells. pH of groundwater tends towards acidic, with few monitoring wells measuring pH greater than 7, whilst surface water pH is generally neutral.

8.1.2 Groundwater Elevations

The following observations are made in relation to the groundwater elevation contours shown on **Figure 4** to **Figure 6**:

- Fill and Tertiary-aged Aquifers: Not contoured due to insufficient number of wells.
- Shallow Quaternary Aquifer: Flow is south-east from the northern base boundary towards the operational part of the base. Localised groundwater flow from the south-western base boundary is in a north-easterly direction towards South Creek. Overall groundwater flow direction is towards Hanns Inlet.
- Deep Quaternary Aquifer: Monitoring wells MW214D, MW215D, MW217D and MW218 are installed in the deeper water bearing zone of the Brighton Group aquifer. These wells are not included in the groundwater flow contours.

Groundwater elevations and flow directions are summarised below:

- Groundwater flow directions were consistent across the monitoring period and is also consistent with the expected direction based on historical monitoring.
- Groundwater elevation in the Tertiary-aged aquifer was variable and likely influenced by interaction with tidal waters of South Creek and Hanns Inlet where tidal fluctuation of -1 mAHD to 1 mAHD is expected (Aurecon, 2018a). Average groundwater elevations in the shallow and deep Brighton Group aquifers were generally stable throughout the monitoring period and did not indicate a response to below average annual rainfall received in 2023 and 2024.
- Paired wells installed in the shallow and deep Brighton Group Aquifer show a variable upwards and downwards gradient, although an upwards gradient was described in the DSI (Aurecon, 2018a).

As detailed in **Section 7.1**, 2023 and 2024 were below-average rainfall years and the rainfall received in the month prior to and during monitoring was variable for the three monitoring events.

8.1.3 PFAS concentrations in groundwater

PFAS concentrations during the December 2023 to November 2024 monitoring period were compared with the historical concentration range for each location in **Section 7.4.3**. Increases were less than one order of magnitude except for MW214S and MW218. No new detections of PFHxS, PFOS and PFOA were reported except for PFOA at MW071.

Downgradient of the former FTG

Downgradient of the former FTG at MW074, PFHxS increased slightly to 4.2 µg/L and PFOA to 0.20 µg/L compared to the historical maximums of 3.05 µg/L and 0.15 µg/L respectively. Order of magnitude increases were recorded at MW214S for PFOS+PFHxS to 0.24 µg/L, PFHxS to 0.20 µg/L and PFOS to 0.04 µg/L from historical maximums of 0.009 µg/L, 0.006 µg/L and 0.003 µg/L although this result was recorded in November 2024; the first time the well had been sampled since April 2018.

Trend analysis was conducted using post-clean-up monitoring data (completed in May 2022 [WSP, 2023]). Based on the available dataset from May 2023 to November 2024, concentrations up- and down-gradient of the former FTG showed stable or no trends post-clean-up except for MW030, MW212 and MW215D which showed decreasing concentrations and MW074 in the source area which showed an increasing trend for PFHxS and a decreasing trend for PFOS.

The increasing concentration trend at MW074 in the shallow Brighton Group aquifer indicates migration of PFHxS impacted groundwater downgradient of the former FTG in a southerly direction. The highest concentration of PFHxS recorded in the monitoring period downgradient of the former FTG in the shallow Brighton Group was in MW215S. PFHxS impacted groundwater is also present in the deep Brighton Group aquifer in downgradient well MW215D at stable concentrations that are one to two orders of magnitude lower than in the adjacent shallow well (MW215S).

The Tertiary-aged aquifer is also impacted by PFAS in exceedance of adopted criteria, particularly at MW212 and MW213, although concentrations are stable or decreasing.

The highest concentrations of PFHxS and PFOA in groundwater were recorded at MW067 and MW215S directly downgradient of the former FTG. The highest concentrations of PFOS were recorded at MW121 and MW212 (located approximately 150 m and 250m downgradient of the former FTG respectively) and MW215S (directly downgradient of the former FTG). Changes were observed immediately downgradient of the southern extent of the former FTG containment cell at MW017, MW067 and MW215S indicating migration from the vicinity of the former FTG.

PFAS concentrations were not detected or present at low concentrations at MW018 and MW063 providing horizontal delineation of the plume to the east and west respectively. PFOS and PFHxS concentrations in groundwater from MW018 exceeded the adopted drinking water criteria. However, MW018 is located on base to the west of the former FTG and irrigation and stock watering are unlikely to be realised on base.

At all other locations downgradient of the remediated former FTG, PFAS concentrations were stable or exhibited no trend. Stable or decreasing trends observed at downgradient wells within South Creek wetlands (MW030 and MW212) may reflect a combination of attenuation within the saturated zone and tidal influence leading to increased mobilisation to Hanns Inlet.

Based on the hydraulic gradient the plume is likely to continue to migrate in a southerly direction towards the ultimate discharge location within South Creek and Hanns Inlet. According to the previous OMR (Stantec, 2024c), increased mobilisation of PFAS likely occurred during open excavation of the former FTG pond and source area and is not expected to increase. The final site condition report (GHD, 2025) indicates that encapsulation of 70 % of soils within the containment cells at the former FTG is expected to result in a decrease in mass discharge from the former FTG and base. Groundwater wells further downgradient suggest stable or decreasing PFAS concentrations at the toe of the plume.

Concentrations of PFAS in groundwater wells upgradient of the former FTG (MW064 and MW065) did not increase, indicating that the PFAS identified downgradient of the former FTG originate from the former FTG.

Downgradient of the former STP

Downgradient of the former STP, concentrations at MW218 increased by one order of magnitude to 0.01 µg/L for PFOS+PFHxS above a historical maximum of 0.001 µg/L which was recorded during the DSI (Aurecon, 2018a). This indicates potential minor impact to deep groundwater from the former STP.

Remainder of the base – minor source areas

Trend analysis was completed using all available historical data for groundwater wells throughout the remainder of the base which was not subject to PFAS clean-up as part of base redevelopment. Increasing trends were observed at three wells central to the operational part of the base: MW070, MW054 and MW109 and at one well (MW025) located adjacent to the sullage pit.

Increasing trends in PFOA concentrations were recorded at MW070 and MW109. MW054 indicates an increasing trend for PFHxS. Trend analysis for MW070 was based on a limited dataset of four results and concentrations were below the adopted criteria for PFOA.

PFOS also increased at MW109, central to the operational part of the base, and at MW025 adjacent to the sullage pit. PFOS increased between November 2019 and May 2024 at MW025 and the well was dry in November 2024. The sullage pit consists of a bunded area towards the south-east of the base which was historically used for disposal of asbestos, medical waste and drums as well as soil and sediment removed during dredging of the channel in Hanns Inlet (Aurecon, 2018a). JBS&G was informed dredging has not occurred for several years, and this well appears to screen perched water.

Groundwater in the vicinity of the former STP also contains PFAS concentrations above the screening criteria which discharges in an easterly direction along the West Creek alignment towards Hanns Inlet.

Decreasing concentrations

The final site condition report (GHD, 2025) concluded that the PFAS source mass discharge and mass flux from the fire station and ornamental lake are anticipated to reduce over time, whereas the PFAS source mass discharge and mass flux from the former STP are expected to remain unchanged.

Concentrations of PFHxS, PFOS and/or PFOA have decreased at several wells throughout the base including four wells downgradient of the former FTG, likely reflecting cessation of PFAS-containing AFFF at the base and migration of PFAS impacted groundwater towards the south. Decreasing trends at MW207 reflects a reduction in offsite PFAS affecting the base from the east. The remaining wells reported stable concentrations or no trend.

8.1.4 Weather and tidal influence

As noted in **Section 7.1**, below average rainfall occurred during the monitoring period and groundwater flow direction based on inferred groundwater contours remained generally consistent.

Biannual groundwater monitoring provides a coarse estimate of groundwater level changes and is insufficient to detect daily oscillations in groundwater levels that may occur due to tidal influence. However, EC values greater than 15,000 $\mu\text{S}/\text{cm}$ in groundwater at South Creek wetlands (MW030, MW212 and MW213) and east of the operational area indicate tidal influence. Elevated EC was not observed at the deeper well MW122D in South Creek wetlands, indicating limited deeper aquifer connectivity in this area.

Linear regression tools were utilised to identify correlations between PFAS concentrations in groundwater and rainfall with the objectives of assessing the impact of rainfall events on PFAS migration (refer to **Appendix G**). Review of the analysis (refer **Section 7.4.5**) indicates that most wells did not demonstrate a significant correlation between concentrations of PFOS+PFHxS and recent (20 day) rainfall as determined by the p-value (whereby < 0.05 is considered significant) and the adjusted R² value (whereby a value of 1 suggests a strong correlation). For locations that exhibited a significant p-value, MW028, MW070 and MW074, a residuals analysis was performed to evaluate the modelled results against the reported concentrations to confirm the correlation. Residuals at MW028 and MW070 indicated that linear regression may not be appropriate. However, review of MW074 confirms that PFOS+PFHxS at MW074 may be correlated with rainfall in the 20 days prior to sampling.

8.1.5 Groundwater aquifers and migration pathways

A shallow Brighton Group aquifer at depths of approximately 6 - 8 m depth underlies the base, with groundwater at the northern, eastern and western parts of the base flowing away from adjacent residential and community areas such as Crib Point, Bittern and Somers. Groundwater follows the broad topographic valley towards the operational part of the base. The primary and secondary PFAS sources are located in the operational part of the base, where groundwater discharges in a south-easterly direction into Hanns Inlet.

The deeper Brighton Group aquifer is located at depths of approximately 10 – 12 mBGL. An upwards vertical hydraulic gradient was reported by others (GHD, 2025) between the upper and lower Brighton Group aquifers, although the hydraulic head difference was recorded as less than 0.5 mAHD between December 2023 and November 2024 for nested wells. This indicates minor vertical hydraulic gradients in both upwards (MW214S/D) and downwards (MW215S/D) directions. PFAS was detected in exceedance of the screening criteria in the deep Brighton Group aquifer indicating some migration of PFAS from the base to the deep aquifer. PFAS present in the Brighton Group aquifer is understood to discharge to surface water in Hanns Inlet (GHD, 2025).

Based on the current CSM, a pathway for migration of PFAS from the base is contaminated groundwater emanating from the former FTG which discharges to South Creek and ultimately to Hanns Inlet. The source of PFAS contamination in groundwater is residual PFAS in soil in the vicinity of the former FTG, PFAS in soil underlying the soil containment cell and possible PFAS in soil/sediment matrices downgradient of the former FTG. PFHxS forms a continuous plume through the base. However, the PFOS plume is confined to the western extent of the base with two smaller plumes in the eastern part of the base near Hanns Inlet.

Lower concentrations of PFAS in groundwater exceeding the screening criteria from other parts of the operational area also ultimately discharge to surface water, via tidal creeks or at the point of discharge from the upper Quaternary aquifer to Hanns Inlet.

8.1.6 Comparison with Screening Criteria and Risk Profile

Groundwater concentrations were compared against the screening criteria. Exceedances of the drinking water, recreational and ecological criteria were recorded for each aquifer. The risk profile is based not only on screening criteria, but on the CSM which identifies realistic receptors and pathways for exposure. The risk profile is discussed in **Section 9.1.4**.

8.2 Surface water

8.2.1 Field Parameters

Surface water parameters were generally consistent throughout the monitoring period. Based on EC readings, East Creek exhibited seawater influence as far upstream as SW009 (north of Cook Road) and South Creek exhibited seawater influence as far upstream as SW028 (north of Bass Road).

8.2.2 Surface water flow and tidal conditions

Surface water enters the base from the north as East Creek and South Creek, the upper reaches of which are ephemeral water courses flowing in a southerly direction towards Hanns Inlet. East Creek and South Creek straddle the operational part of the base to the north-east and south-west flowing in a generally southerly direction towards Hanns Inlet. Surface water enters the base from the west via West Creek which flows in an easterly direction, ultimately entering Hanns Inlet. The lower reaches of South Creek and West Creek consist of dredged channels.

Overland flow from the operational part of the base discharges to the tidal creeks or directly to Hanns Inlet via a pit and pipe network. All surface water features ultimately discharge to Hanns Inlet and SW071 is sampled from Hanns Inlet.

Surface water flow conditions ranged from no flow to high flow. A total of six drains were recorded as dry during at least one monitoring event between December 2023 to November 2024. Surface water samples were collected during falling tide in November 2024 at all tidal creek locations, but tidal conditions were variable or not recorded in December 2023 and May 2024.

8.2.3 PFAS Concentrations in surface water

Comparison with screening criteria

Surface water concentrations were compared against the screening criteria. Exceedances of drinking water and ecological criteria were recorded in the former STP lagoons, former FTG drain, tidal creeks and drains discharging to Hanns Inlet and tidal creeks. Recreational criteria were only exceeded in the former STP (SW014, SW015, SW016 and SW057). The nominated sampling location (SW071) within Hanns Inlet did not exceed any screening criteria.

Upgradient off-base sources

PFAS above the ecological and drinking water criteria enters the site via tidal creeks but the contribution of PFAS from upstream sources is negligible. Within the OMR period, PFAS was not detected from off-base upgradient sources within South Creek (SW024) and concentrations of PFAS were low or not detected above the laboratory LOR in surface water from off-base upgradient sources within East (SW021, SW022) and West Creek (SW023). PFAS in the lower reaches of the tidal creeks is discussed further below.

Drains discharging from base

Samples from the south of the operational part of the base indicate decreasing PFHxS trends at SW006. At the north of the base, concentrations of PFHxS and PFOS showed a reducing trend at SW074. In November 2024, samples were collected from nearby waters of Hanns Inlet due to submerged, dry or inaccessible outlet pipes whereas during previous monitoring events the samples appeared to have been collected from drains leading to possible low reliability of trend analysis.

Surface water concentrations of PFOS increased above the historical maximum by less than one order of magnitude at SW075 which discharges from the north-east of the base to East Creek. SW019 and SW009 at the north-east indicate decreasing trends for PFOS.

Former STP Lagoons

The former STP contains the highest concentrations of PFOS within the base monitoring network (SW014, SW015, SW016 and SW057). The former STP shows an increasing trend for PFHxS and PFOA at SW014 within the former STP lagoon, however concentrations are within the historical range. Other locations within the lagoons (SW015, SW016 and SW057) exhibit stable or decreasing trends. The southern lagoon (SW014 and SW057) shows consistently higher concentrations than the two northern lagoons (SW015 and SW016). The lagoons were part of a mechanical treatment plant which was decommissioned in the early 2000s (Aurecon, 2018a). The lagoons received AFFF PFAS residue, construction debris during decommissioning and stormwater during opportunistic clean-up of the former FTG containment cell (GHD, 2025). The effluent was discharged to woodlands across Rifle Range Road. Engineering details of the current lagoons such as remaining pipework between lagoons and overflow points are unknown.

Tidal Creeks

East Creek receives minor concentrations of PFAS from stormwater runoff from the operational part of the base. PFHxS or PFOS concentrations show a decreasing trend at five locations within East Creek (SW009, SW018, SW075 to SW077).

In South Creek, consistently higher concentrations at SW027 and SW028 compared to SW024 (base boundary) indicate ongoing contribution to the creek from the former FTG although the concentrations are generally stable or decreasing and within the historical range.

In West Creek, concentrations of PFOS, PFHxS and PFOA are higher in SW017 compared to upgradient location SW023 indicating potential influence from the former STP.

Locations with no PFAS detections

PFAS was not detected or not reported at concentrations exceeding screening criteria in SW003, SW007, SW009, SW022, SW024, SW071 and SW076 between December 2023 and November 2024. Two of these locations (SW022 and SW024) are within the tidal creeks upgradient of the base and the remaining locations are all downgradient of the base.

No new detections of PFHxS, PFOS or PFOA were reported.

8.2.4 Tidal Influence

Monitoring locations within the lower reaches of South Creek (SW027, SW028) and East Creek (SW018, SW020) are tidally affected based on EC readings reflective of seawater influence. In accordance with the OMP (Aurecon, 2018), the November 2024 surface water sampling event was completed during falling tide; this was intended to assess site-sourced PFAS impact within tidal creeks rather than PFAS concentrations in the incoming tidal waters. The December 2023 and May 2024 sampling events occurred during high tide, or the tide was not recorded at several locations.

The tide was recorded at SW017 and SW027 during all three monitoring events. At SW017, samples were collected on an outgoing/slack tide in December 2023 and at high tide in May and November 2024. Concentrations of PFOS+PFHxS were consistent between sampling events. Samples were collected during falling or low tide at SW027 for each monitoring event. PFAS concentrations were higher in November 2024 and similar between December 2023 and May 2024. Based on this limited dataset does not indicate tidal influence on PFAS concentrations in the tidal creeks.

8.2.5 Impact of rainfall on PFAS concentrations

The two-day cumulative rainfall¹ was compared against surface water PFAS concentrations to identify correlations between rainfall and PFAS mobilisation in surface water. The graphs indicate that at most locations, except for SW004, SW028 and SW074, concentrations of PFOS+PFHxS are generally consistent and are not impacted by rain events (refer to **Appendix G**).

SW004 (drain discharging at the south of the operational part of the base to Hanns Inlet) and SW028 (within South Creek) demonstrated an increase in concentrations following rain events. SW004 sample was collected from stagnant water in November 2024 when the highest concentration was recorded and may not be comparable with previous monitoring rounds if samples were collected from a flowing drain.

Higher concentrations of PFOS+PFHxS at SW028 following rainfall suggests potential mobilisation of PFAS compounds from the vicinity of the sample location during rain events. SW027 did not exhibit the same pattern, with generally consistent concentrations reported during each sampling event despite varying rainfall prior. SW028 is located 160 m upgradient of SW027 and closer to the former FTG. As the containment cell is capped and lined, the increase may be due to mobilisation of sediments within South Creek, but this has not been confirmed.

SW074 reported lower PFOS+PFHxS following rainfall events. SW074 is a drain discharging from the north of the base towards East Creek. As pit and pipe drainage networks are designed to rapidly convey rainfall from impervious surfaces, it is possible that sampling events did not capture first-flush rainfall from the base hence the lower concentrations during rain events or that potential dilution of contaminants occurs from precipitation.

¹ It is noted that 2-day, 7-day and 10-day cumulative rainfalls were assessed as part of this assessment, and 2-day was found to be the most appropriate for the 'short-term' flow locations. The larger water bodies did not appear to have the same variability with rain. Therefore, 2 days was chosen to ensure that the variability at the 'short-term' locations was adequately captured.

The results do not indicate a clear response to minor rainfall events in the two days prior to sampling.

The intention of surface water monitoring as stated in the OMP (Aurecon, 2018) is to undertake surface water sampling to capture a range of flow conditions including during the wet season and following extreme rainfall as described in **Table 4-1**. Although rainfall has occurred during each sampling event in the monitoring period, the trigger for extreme rainfall event sampling was not defined. Extreme rainfall events could result in dilution in surface water and results obtained during such events are unlikely to reflect worst case scenario of PFAS migration in surface water. Therefore, the impact of not sampling during extreme rainfall events on the OMP objectives is low.

The OMP program has shown that the pit and pipe drainage pipes across the base are ephemeral and only flow immediately following rainfall events. Several locations within drains were recorded as dry during each monitoring event. The ephemeral nature of the upper reaches of tidal creeks may result in sampling of stagnant water resulting in higher PFAS concentrations due to evaporative effects or prolonged contact with soils/sediments containing PFAS.

Due to weather conditions, it is not always achievable to sample surface waters while flowing. There is a risk of missing surface water sampling locations in OMP sampling events undertaken outside of significant rainfall events. However, given the low and acceptable risk profile, the limited effect of rainfall on surface water concentrations and the extended duration of OMP monitoring (2018 to present), the data is considered sufficient to characterise PFAS impacts in surface water.

9. Conceptual site model

The current CSM has been assessed in the DSI (Aurecon, 2018) (pre clean-up) and the resulting risk profile was confirmed in the final site condition report (GHD, 2025) (post clean-up).

This section provides a summary of the current CSM based on previous investigations and identifies any exceptions or deviations arising from the results of monitoring conducted between December 2023 and November 2024.

The CSM takes into consideration sources, pathways and receptors of PFAS impact both on- and off-base.

9.1.1 Source areas

The primary source areas and minor, or secondary source areas have been identified based on soil sampling (Aurecon, 2018a) and the PFAS mass flux for the base has been calculated.

Due to the variability of PFAS concentrations downgradient of the former FTG, although remediated, this area is considered a source area for the purpose of this assessment.

The results of the groundwater and surface water monitoring undertaken and summarised in this OMR did not identify additional source areas to those listed in **Section 2.2**.

9.1.2 Pathways

A primary objective the DSI (Aurecon, 2018a) and mass flux studies (Aurecon, 2022 and Stantec, 2024d) was to further investigate PFAS migration pathways. These investigations demonstrated that the primary migration pathways for the site-derived PFAS impacts are surface water and groundwater. The OMP results discussed as part of this OMR have confirmed the pathways identified. Collectively, this corroborates the pathways identified in the CSM.

No new pathways have been identified as part of preparation of this OMR.

9.1.3 Receptors

Receptors were identified in the final site condition report (GHD, 2025). No new receptors have been identified as part of preparation of this OMR.

9.1.4 Risk profile

The following section provides a discussion of potential implications of the December 2023 to November 2024 OMP results reported in this OMR on the overall PMAP program, including refinement to the CSM and the risk profile.

Concentrations of PFOS, PFHxS and PFOA in groundwater have increased above the previous historical maximums at several locations but only two locations reported an order of magnitude increase (MW214S and MW218) above the historical maximums recorded in the DSI (Aurecon, 2018a). Increasing trends in PFOS and/or PFHxS were identified at several wells. The plume of PFAS impact in groundwater originating from the former FTG is increasing immediately downgradient of the containment cell and is likely to continue migrating in a southerly direction towards South Creek, largely contained within the shallow Quaternary aquifer.

Trend analysis also identified increasing trends in groundwater at the centre and south of the base likely related to ongoing migration of the PFAS plume from minor source areas upgradient.

Surface water concentrations are generally stable except for a less than one order of magnitude increase at SW075 and an increasing trend within the former STP lagoon. PFAS was not detected within Hanns Inlet (SW071) which is the ecological receptor and ultimate discharge location of base surface water and groundwater.

Exceedances of the screening criteria have been recorded in both groundwater and surface water, however the tier 1 risk assessment (Aurecon, 2018) identified low and acceptable risks to on- and off-base receptors based on data collected in 2017 and 2018. The final site condition report (GHD, 2025) considered subsequent data and considered that risks to on and off-base human health and ecological receptors were low and acceptable. Based on opportunistic clean-up works completed as part of base redevelopment, it is understood that PFAS concentrations will decrease over time (GHD, 2025).

Therefore, the objective of the OMP is not to quantitatively assess risk to receptors but to identify changes such as increased concentrations in groundwater and surface water which could indicate a change to the risk profile for receptors and decreases in PFAS concentrations which indicate attenuation in soils and/or depletion of the PFAS sources.

As part of preparing this OMR, where PFAS increases were identified during the OMP program, the source-pathway-receptor linkages have been reviewed to identify if this indicates a material change in potential risks to on and off-base receptors. Although order of magnitude increases in PFAS concentrations have been identified in two wells located downgradient of the former FTG and STP, based on the location of these wells, the groundwater flow direction, changes identified in this OMR between December 2023 and November 2024, and the lack of significant changes to the on-base and surrounding land uses, the risk profile associated with PFAS contamination remains low and acceptable as identified in the final site condition report (GHD, 2025).

10. Conclusions

JBS&G completed a review of the December 2023, May 2024 and November 2024 OMP sampling events. Results from these events have been assessed against adopted criteria and reviewed in the context of existing investigations and historical data in order to identify and evaluate:

- Spatial and temporal (including seasonal) variability of PFAS in the environment.
- Changes to PFAS sources, transport pathways and/or receptors for the base and former management area.
- Whether risks to human and ecological receptors require review.
- Whether the identified changes in PFAS concentrations during the OMP trigger an action and/or review.

Based on the review completed, the overall objectives of the OMP have been achieved, with minor deviations from the SAQP not identified as material to the program outcomes. The conclusions reached, in accordance with the limitations provided in **Section 11**, have been provided below.

10.1 Groundwater

Below average annual rainfall occurred during the monitoring period (2023 and 2024) with below average rainfall in the months prior to the December 2023 and November 2024 sampling events and significantly higher rainfall in the month prior to the May 2024 sampling event.

The groundwater level in the Tertiary-aged aquifer which underlies East and South Creeks was variable and appeared to be influenced by tidal fluctuations, consistent with expectations for the alluvial aquifer and elevated TDS values in these wells. The shallow Brighton Group aquifer underlying the base showed consistent groundwater levels throughout the monitoring period and did not appear to respond to below-average rainfall conditions recorded in 2023 and 2024.

Groundwater flow direction within the shallow Brighton Group aquifer remained consistent with previous sampling periods (Stantec, 2024c) and this supports the conceptual understanding that groundwater flows towards the southeast discharging to the tidal creeks and ultimately, Hanns Inlet.

Groundwater flow direction within the deep Brighton Group aquifer has not been plotted due to the few monitoring wells available. Groundwater elevations infer both minor upwards and downward head differences at nested wells within the Brighton Group aquifer, although previous investigations had identified the presence of an upwards gradient (Aurecon, 2018a).

PFAS impact is evident in the Tertiary-aged aquifer however the highest concentrations of PFAS occur in the shallow Brighton Group aquifer. Although PFAS was detected in exceedance of the screening criteria in the deep Brighton Group aquifer, concentrations of PFAS are significantly lower at depth, indicating some migration of PFAS on base from the shallow Brighton Group aquifer to the deep aquifer. PFAS present in the Brighton Group aquifer is understood to discharge to surface water in Hanns Inlet (GHD, 2025).

Exceedance of screening criteria adopted for the maintenance of environmental values of groundwater were recorded between December 2023 and November 2024 for water based recreation, drinking water (adopted for screening purposes for stock water use and agriculture/parks/gardens water use) and water dependent ecosystems and species.

Groundwater analytical results remained relatively stable and comparable with previous OMP sampling events except for an increasing trend at one well downgradient of the former FTG (MW074), one well within the sullage pit (MW025), two wells central to the base (MW070, MW109) and one well at the south of the base (MW054). Decreases of PFAS were recorded at several wells throughout the base. Increases above the historical range were reported at two wells (MW214S and MW215S) immediately downgradient of the former

FTG. Decreasing trends were observed at two wells (MW212 and MW030) and one well (MW213) demonstrated an increase above the historical range further downgradient within South Creek wetlands.

In summary, groundwater results from the monitoring period indicate that the plume of PFAS impact originating from the former FTG is generally stable except for MW074 and is likely to continue to migrate in a southerly direction towards the ultimate discharge location within South Creek and Hanns Inlet. Opportunistic clean-up of the former FTG as part of base redevelopment was completed in May 2022 and although concentrations at individual wells may increase, mass flux from this PFAS source are expected to decrease (GHD, 2025).

PFOS increased gradually and consistently at MW025 within the sullage pit, to May 2024 and the well was dry in November 2024. Placement of dredged soil and sediment from Hanns Inlet into the sullage pit has not occurred for several years.

Concentrations of PFHxS, PFOS and/or PFOA have decreased at 17 wells throughout the base likely reflecting cessation of PFAS containing AFFF at the base and migration of PFAS impacted groundwater towards the south. Decreasing trends at one well (MW207) reflects a reduction in offsite PFAS affecting the base from the east. The remaining wells reported stable concentrations or no trend.

10.2 Surface water

The surface water analytical results from the monitoring period remained relatively stable and comparable with previous OMP sampling events and previous environmental investigations. The results confirm the current CSM that surface water is the primary pathway for PFAS migration from the former FTG and operational areas of the base.

Concentrations of PFAS entering the base surface water bodies from upgradient sources were low or marginally just above the laboratory LOR. PFHxS, PFOS and PFOA concentrations in surface water entering the base were stable or showed no trend, consistent with previous monitoring period (Stantec, 2024c).

The surface water results indicate ongoing contribution of PFAS from the former FTG. The former STP shows an increasing trend for PFHxS, PFOS and PFOA in the southern lagoon, with the northern lagoons exhibiting stable or decreasing trends. The former FTG and the former STP are the primary PFAS source areas on-base.

Concentrations of PFAS between December 2023 and November 2024 exceed the screening criteria adopted for the maintenance of environmental values of surface water including water based recreation, drinking water and water dependent ecosystems and species.

PFAS was not detected or not reported at concentrations exceeding screening criteria at SW003, SW007, SW009, SW022, SW024, SW071 and SW076 in the monitoring period. These surface water locations are positioned around the edge of the operational portion of the base and along the former management area boundary.

10.3 CSM and risk profile update

The OMP results from December 2023 to November 2024 did not identify any additional source areas which had not been previously assessed and no additional transport/exposure pathways or changes to existing pathways have been identified.

The OMP analytical results discussed as part of this OMR were generally within ranges identified and considered in previous investigation reports, except for increasing trends observed central to the operational area of the base and downgradient of the former FTG. The final site condition report (GHD, 2025) determined the risk to receptors is low and acceptable and postulated that concentrations downgradient of the former FTG would gradually decrease following completion of opportunistic clean-up works.

The objective of the OMP is not to quantitatively assess risk to receptors but to identify changes such as increased concentrations in groundwater and surface water which could indicate a change to the risk profile

for receptors and decreases in PFAS concentrations which indicate attenuation in soils and/or depletion of the PFAS sources. No changes to the source-receptor-pathway relationship were found to arise from the PFAS concentrations recorded and trends will continue to be assessed through ongoing monitoring.

10.4 Program triggers or actions

Based on the assessment completed as part of this OMR, the objectives of the OMP have been achieved. Ongoing monitoring is required to identify PFAS trends (increases and decreases) over time, monitor potential risks, and provide supporting data to evaluate whether management actions have resulted in reducing the mass flux of PFAS to surface water and groundwater. Based on the available monitoring network and the findings from this OMR, a reduced scope can be undertaken for future monitoring events.

11. Limitations

This report has been prepared for use by Defence who has commissioned the works in accordance with the project brief only and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for Defence for the purposes of the commission and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to Defence by JBS&G.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

12. References

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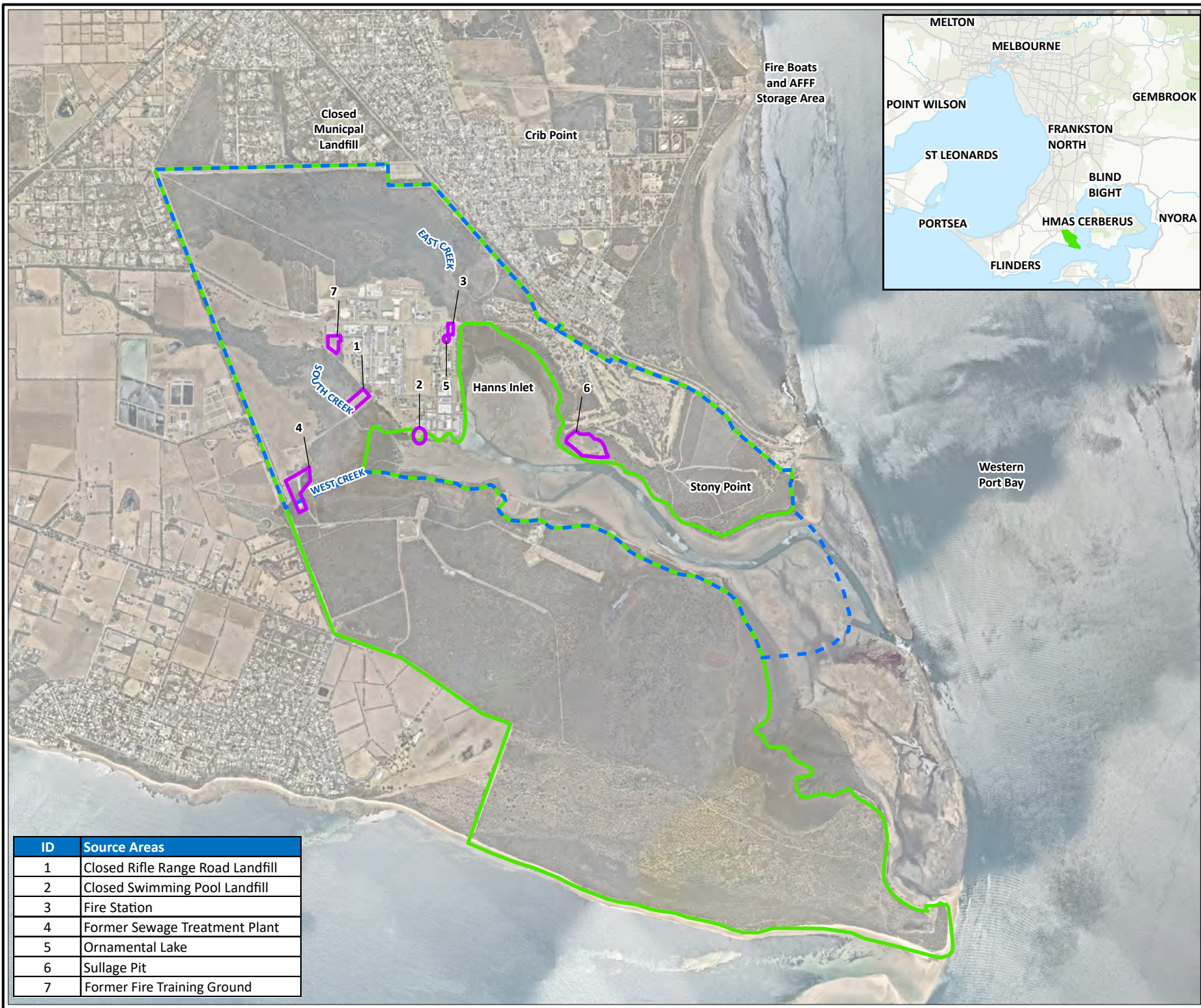
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Figures

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- Figure 2: Groundwater gauging and sampling locations
- Figure 3: Surface water sampling locations
- Figure 4: Groundwater contours – December 2023
- Figure 5: Groundwater contours – May 2024
- Figure 6: Groundwater contours – November 2024
- Figure 7: Groundwater concentrations – December 2023
- Figure 8: Groundwater concentrations – May 2024
- Figure 9: Groundwater concentrations – November 2024
- Figure 10: Surface water concentrations – December 2023
- Figure 11: Surface water concentrations – May 2024
- Figure 12: Surface water concentrations – November 2024



ID	Source Areas
1	Closed Rifle Range Road Landfill
2	Closed Swimming Pool Landfill
3	Fire Station
4	Former Sewage Treatment Plant
5	Ornamental Lake
6	Sullage Pit
7	Former Fire Training Ground



Legend

- Site Area
- Former Management Area / Investigation Area
- Source Area
- Watercourse

Job No: 66022

Client: Department of Defence

Version: Rev B

Date: 10-Aug-2026

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Checked By: [redacted]

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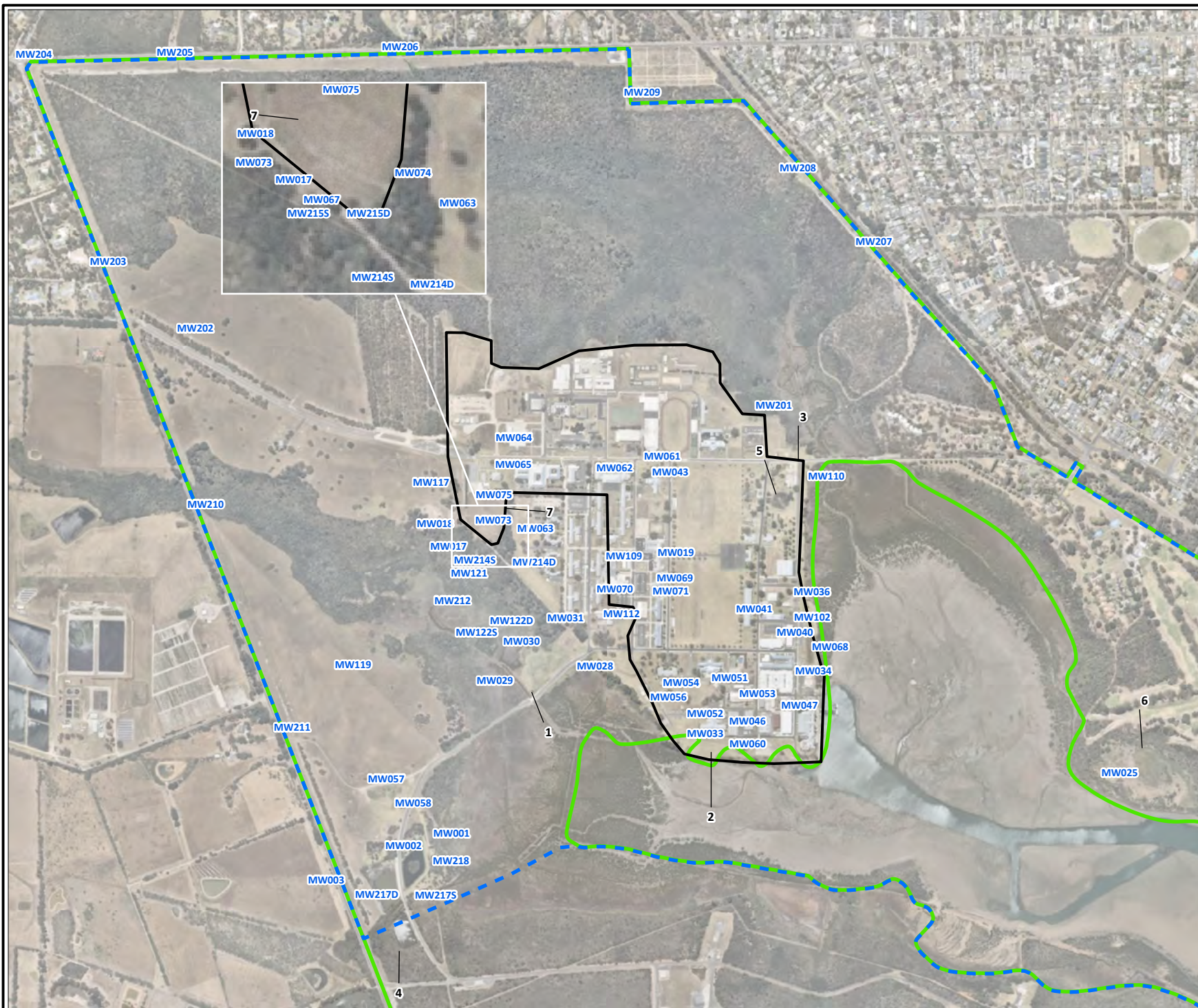
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Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

SITE LOCALITY PLAN

FIGURE 1



Legend

- Site Area
- Former Management Area / Investigation Area
- Operational Area
- Source Area
- Groundwater Monitoring Location

Job No: 66022

Client: Department of Defence

Version: Rev B	Date: 10-Aug-2026
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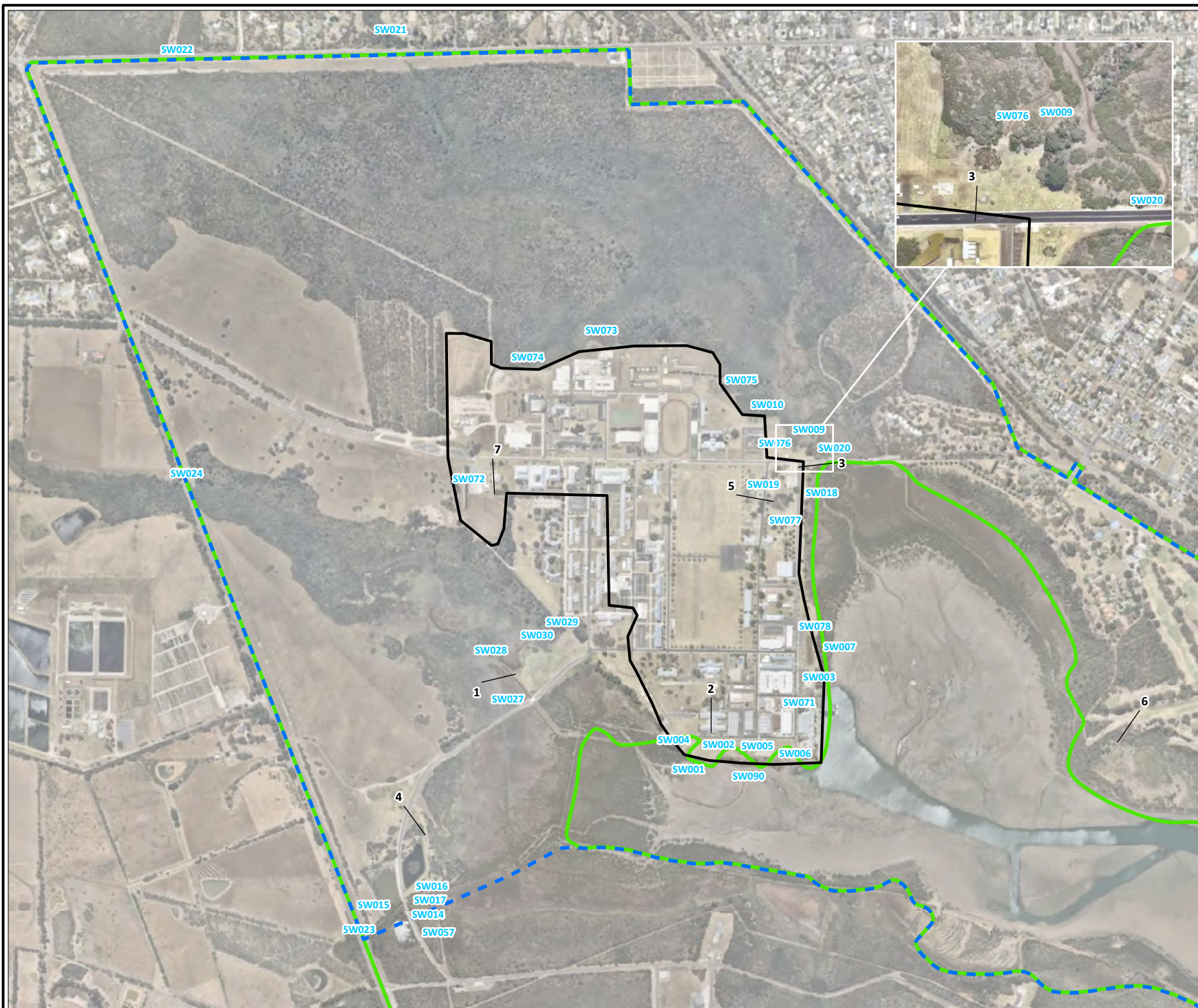
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Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

GROUNDWATER GAUGING AND SAMPLING LOCATIONS

FIGURE 2



- Legend**
- Site Area
 - - - Former Management Area / Investigation Area
 - Operational Area
 - Source Area
 - Surface Water Sampling Location



Job No: 66022

Client: Department of Defence

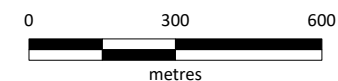
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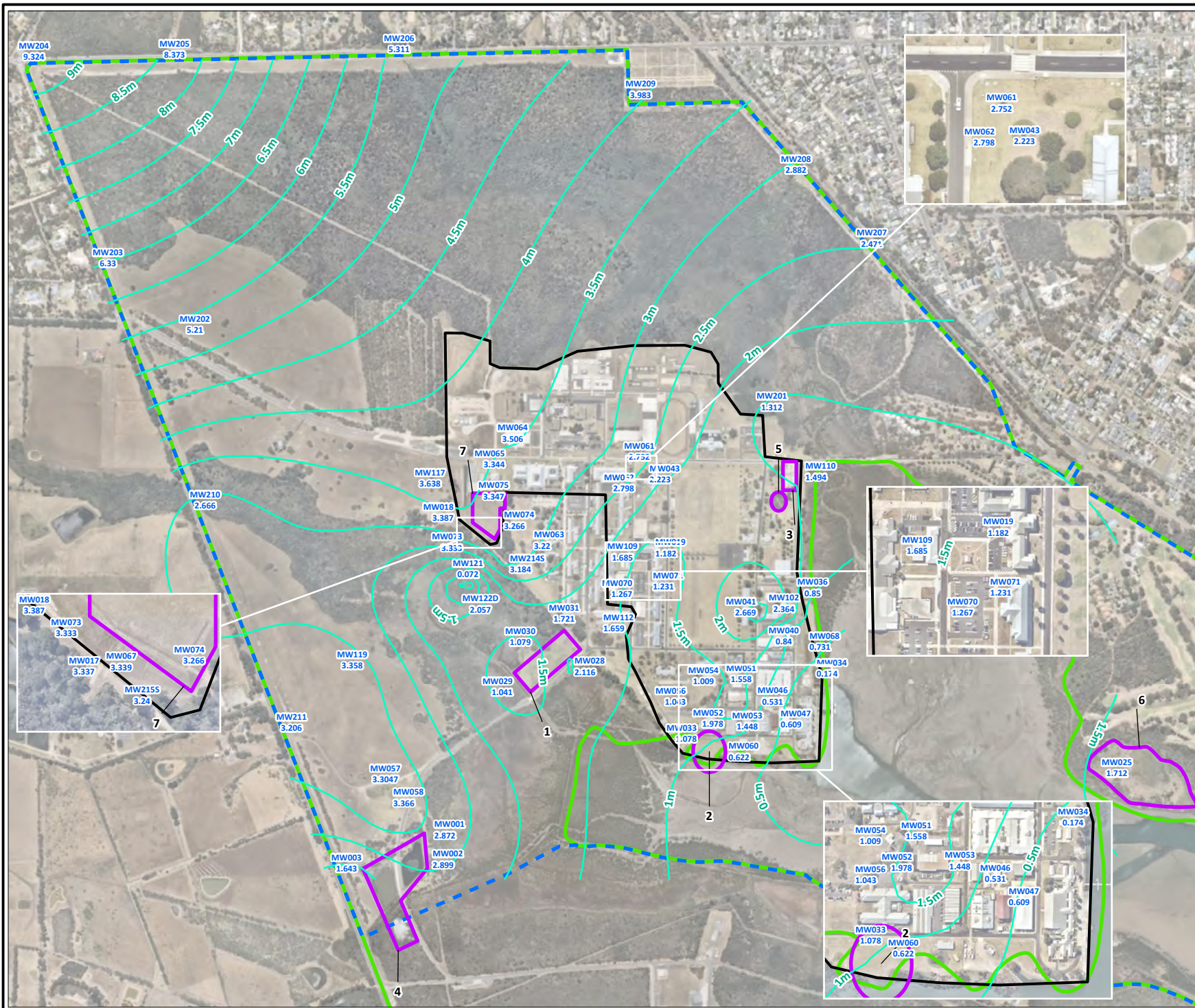


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

SURFACE WATER SAMPLING LOCATIONS

FIGURE 3



- Legend**
- Site Area
 - Former Management Area / Investigation Area
 - Operational Area
 - Source Area
 - Inferred Groundwater Contour
 - Inferred Groundwater Flow Direction
 - Groundwater Monitoring Location
 - 2.662 Standing Water Level (mAH)



Job No: 66022

Client: Department of Defence

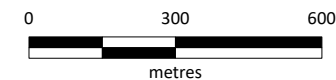
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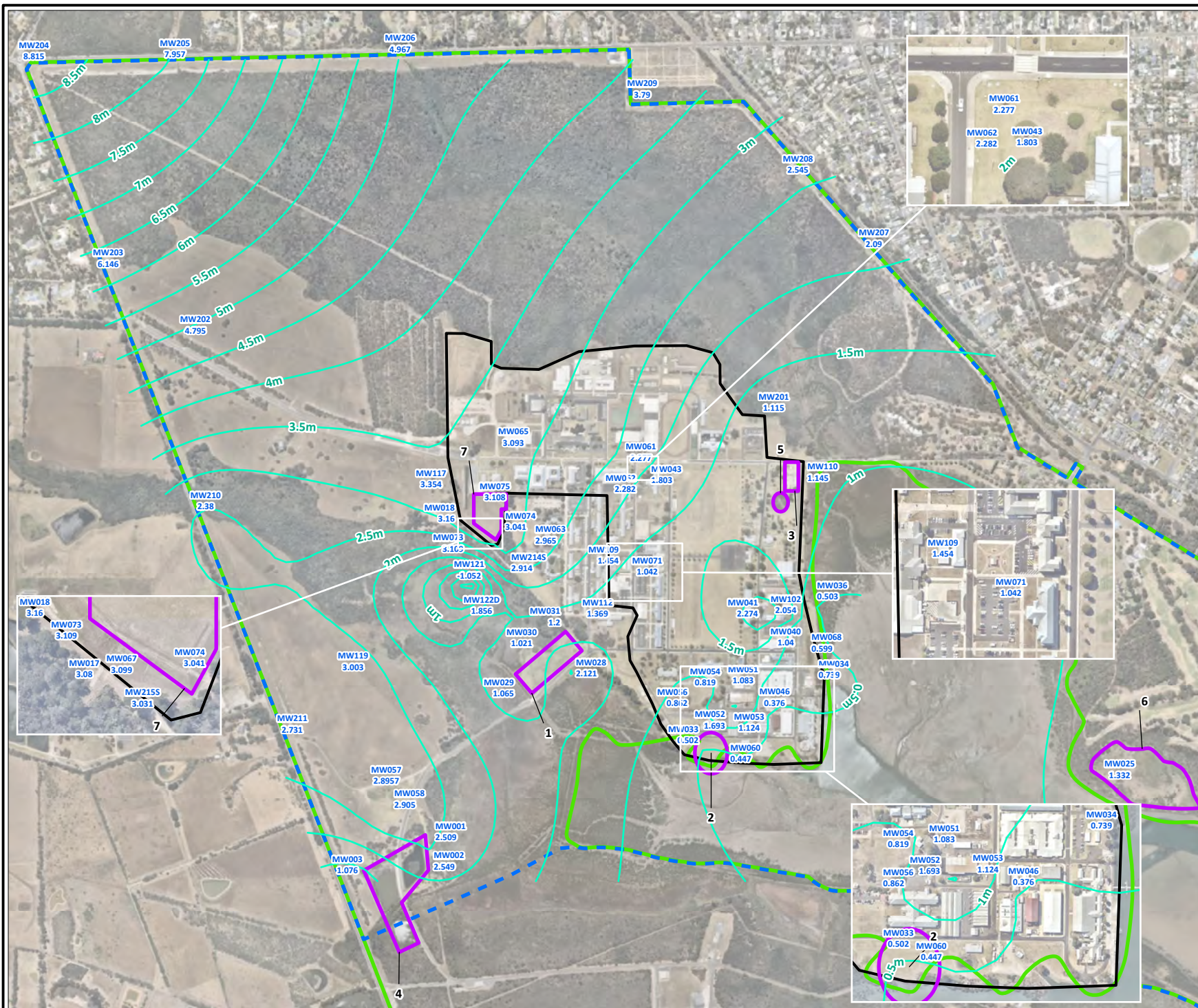


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER CONTOURS
- DECEMBER 2023**

FIGURE 4



- Legend**
- Site Area
 - - Former Management Area / Investigation Area
 - Operational Area
 - Source Area
 - Inferred Groundwater Contour
 - Inferred Groundwater Flow Direction
 - Groundwater Monitoring Location
 - 2.662 Standing Water Level (mAHD)



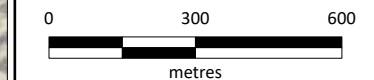
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Client: Department of Defence

Version: Rev 0 Date: 10-Aug-2026

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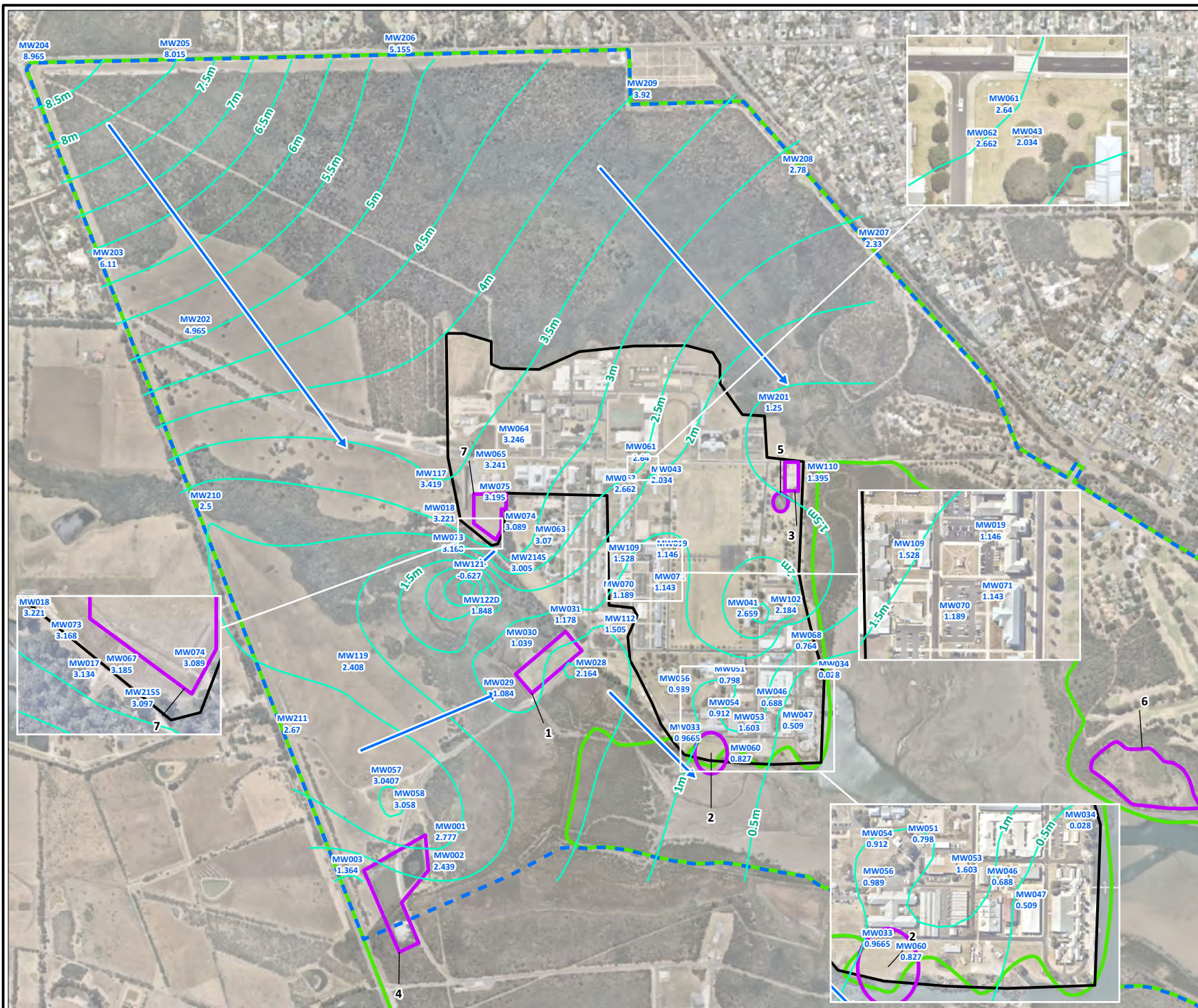


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER CONTOURS
- MAY 2024**

FIGURE 5



- Legend**
- Site Area
 - Former Management Area / Investigation Area
 - Operational Area
 - Source Area
 - Inferred Groundwater Contour
 - Inferred Groundwater Flow Direction
 - Groundwater Monitoring Location
 - 2.662 Standing Water Level (mAHD)



Job No: 66022

Client: Department of Defence

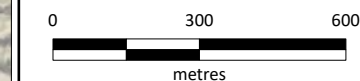
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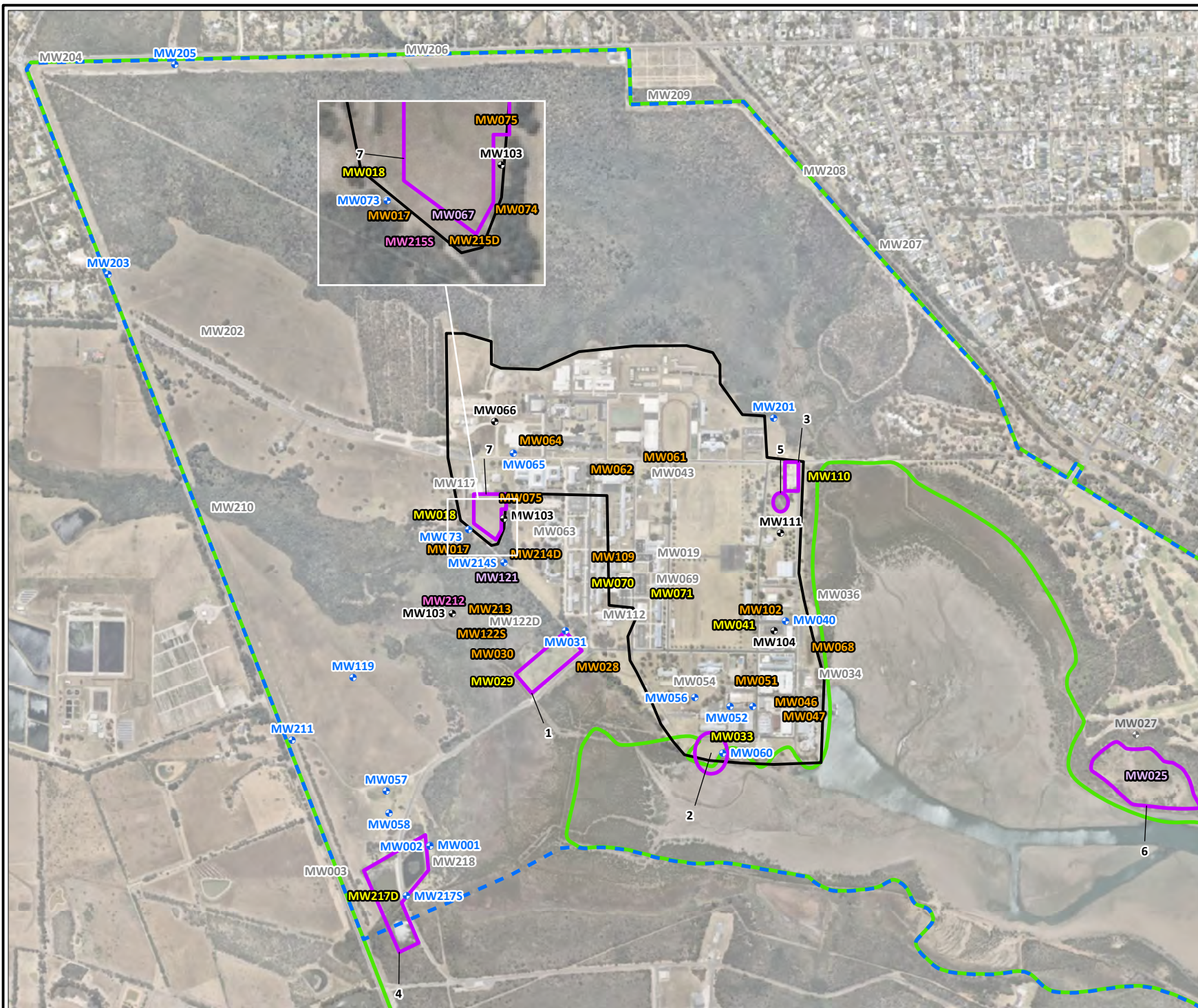


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER CONTOURS
- NOVEMBER 2024**

FIGURE 6



Legend

- Site Area
- Former Management Area / Investigation Area
- Operational Area
- Source Area

Groundwater Monitoring Location

- Destroyed/Lost/Inaccessible
- Dry
- Gauge Only Well

PFOS Concentrations

- Non-detect*
- PFOS >0.008 µg/L to ≤0.02 µg/L
- PFOS >0.02 µg/L to ≤2 µg/L
- PFOS >2 µg/L to ≤20 µg/L
- PFOS >20 µg/L

Note:
*JBS&G notes that the laboratory limit of reporting (i.e. <0.01 µg/L) is greater than the Australian Drinking Water Guideline (0.008 µg/L).



Job No: 66022

Client: Department of Defence

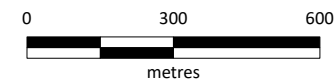
Version: Rev 0

Date: 10-Aug-2026

Drawn By: [Redacted]

Checked By: [Redacted]

Scale 1:15,500

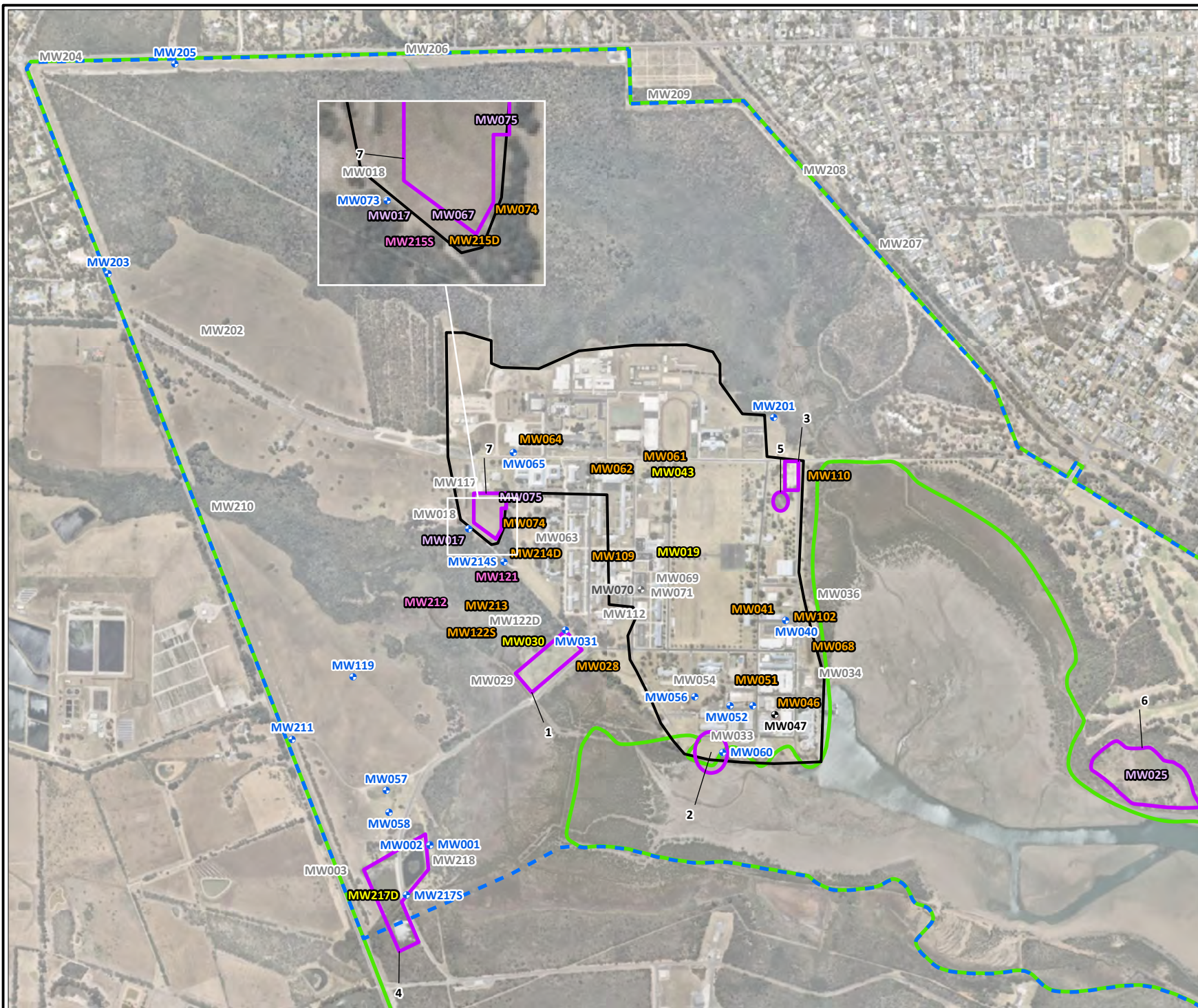


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER CONCENTRATIONS
- DECEMBER 2023**

FIGURE 7



Legend

- Site Area
- Former Management Area / Investigation Area
- Operational Area
- Source Area

Groundwater Monitoring Location

- Destroyed/Lost/Inaccessible
- Dry
- Gauge Only Well

PFOS Concentrations

- Non-detect*
- PFOS >0.008 µg/L to ≤0.02 µg/L
- PFOS >0.02 µg/L to ≤2 µg/L
- PFOS >2 µg/L to ≤20 µg/L
- PFOS >20 µg/L

Note:
*JBS&G notes that the laboratory limit of reporting (i.e. <0.01 µg/L) is greater than the Australian Drinking Water Guideline (0.008 µg/L).



Job No: 66022

Client: Department of Defence

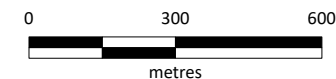
Version: Rev 0

Date: 10-Aug-2026

Drawn By: [Redacted]

Checked By: [Redacted]

Scale 1:15,500

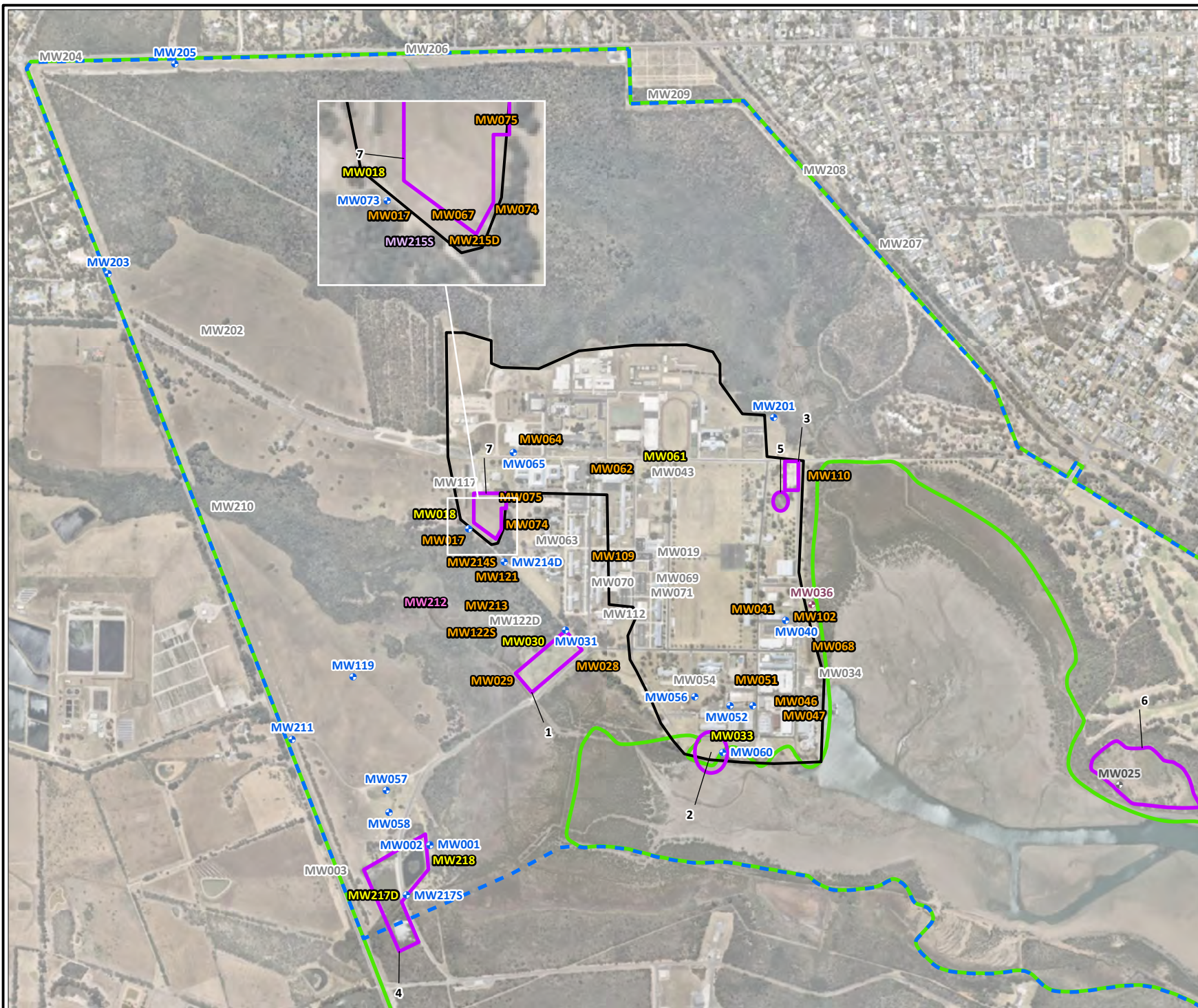


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER CONCENTRATIONS
- MAY 2024**

FIGURE 8



Legend

- ▬ Site Area
- - - Former Management Area / Investigation Area
- Operational Area
- ▬ Source Area

Groundwater Monitoring Location

- Dry
- Not Found
- + Gauge Only Well

PFOS Concentrations

- Non-detect*
- PFOS >0.008 µg/L to ≤0.02 µg/L
- PFOS >0.02 µg/L to ≤2 µg/L
- PFOS >2 µg/L to ≤20 µg/L
- PFOS >20 µg/L

Note:
*JBS&G notes that the laboratory limit of reporting (i.e. <0.01 µg/L) is greater than the Australian Drinking Water Guideline (0.008 µg/L).



Job No: 66022

Client: Department of Defence

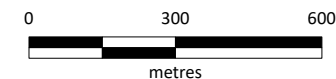
Version: Rev 0

Date: 10-Aug-2026

Drawn By: [Redacted]

Checked By: [Redacted]

Scale 1:15,500

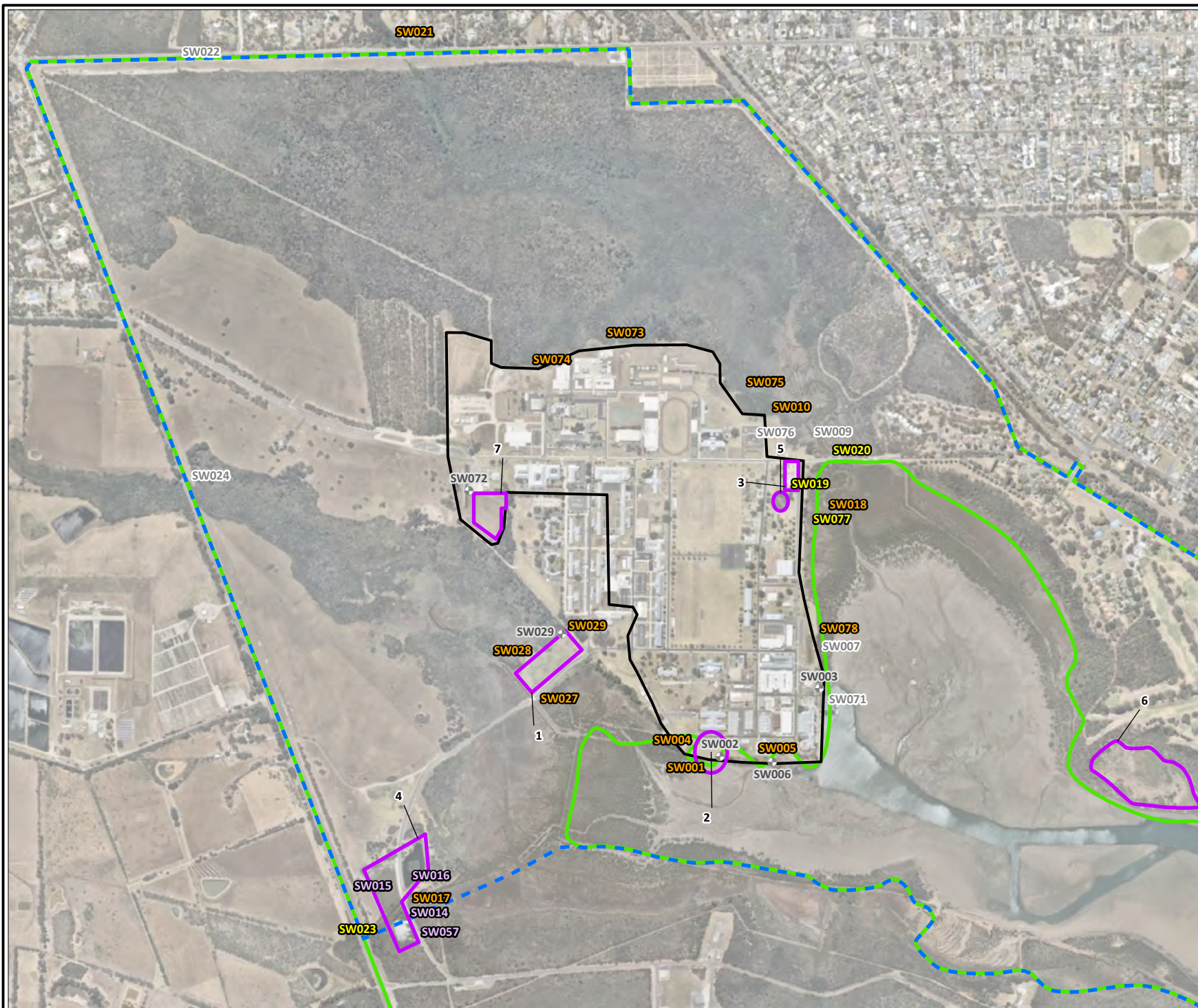


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER CONCENTRATIONS
- NOVEMBER 2024**

FIGURE 9



Legend

- Site Area
- Former Management Area / Investigation Area
- Operational Area
- Source Area
- Surface Water Monitoring Location - Dry

PFOS Concentrations

- Non-detect*
- PFOS >0.008 µg/L to ≤0.02 µg/L
- PFOS >0.02 µg/L to ≤2 µg/L
- PFOS >2 µg/L to ≤20 µg/L

Note:
*JBS&G notes that the laboratory limit of reporting (i.e. <0.01 µg/L) is greater than the Australian Drinking Water Guideline (0.008 µg/L).



Job No: 66022

Client: Department of Defence

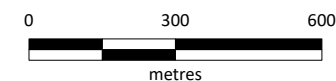
Version: Rev 0

Date: 10-Aug-2026

Drawn By: [Redacted]

Checked By: [Redacted]

Scale 1:15,500

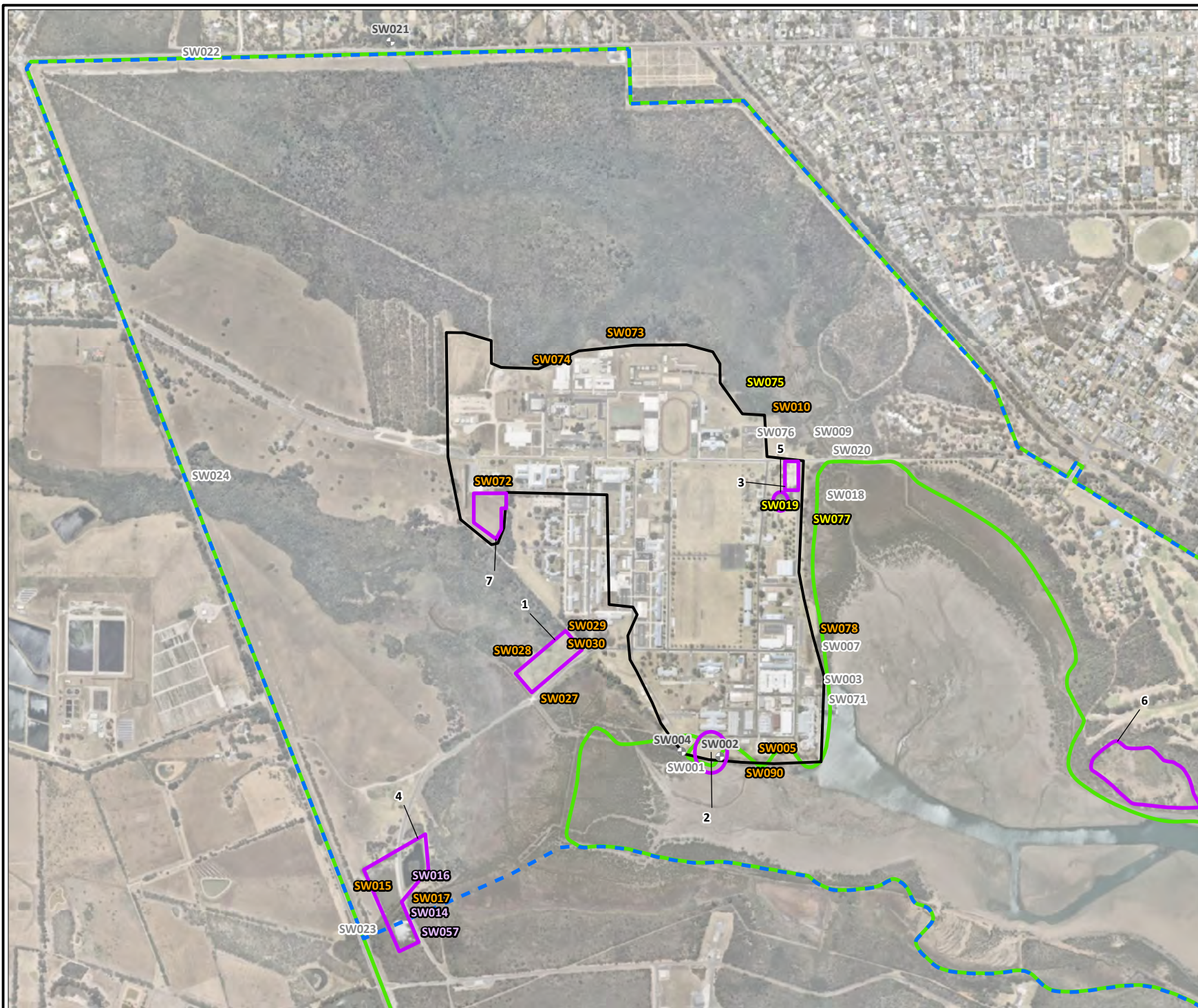


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**SURFACE WATER CONCENTRATIONS
– DECEMBER 2023**

FIGURE 10



Legend

- Site Area
- Former Management Area / Investigation Area
- Operational Area
- Source Area
- Surface Water Monitoring Location - Dry

PFOS Concentrations

- Non-detect*
- PFOS >0.008 µg/L to ≤0.02 µg/L
- PFOS >0.02 µg/L to ≤2 µg/L
- PFOS >2 µg/L to ≤20 µg/L

Note:
*JBS&G notes that the laboratory limit of reporting (i.e. <0.01 µg/L) is greater than the Australian Drinking Water Guideline (0.008 µg/L).



Job No: 66022

Client: Department of Defence

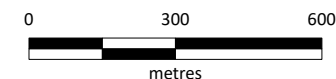
Version: Rev 0

Date: 10-Aug-2026

Drawn By: [Redacted]

Checked By: [Redacted]

Scale 1:15,500

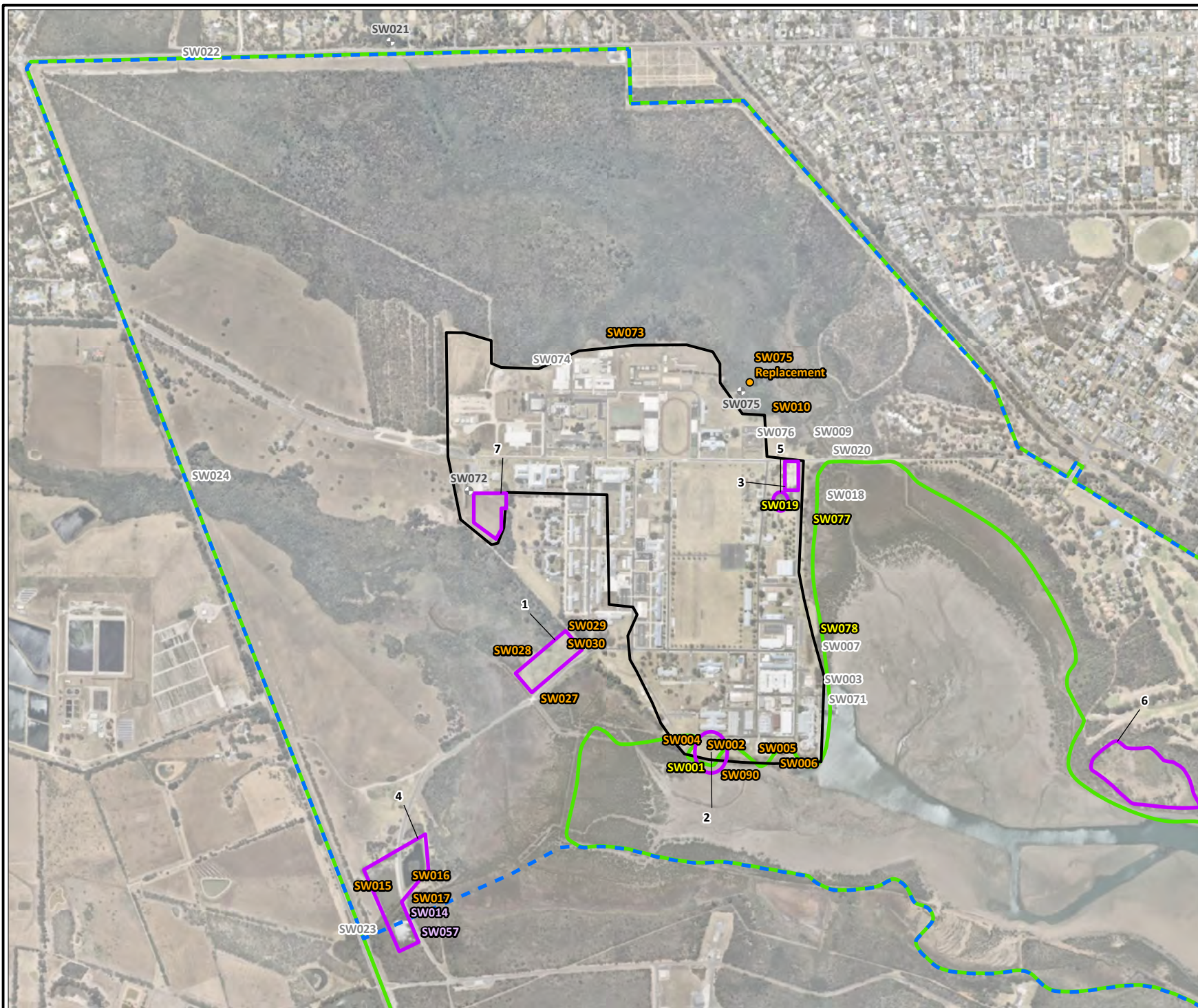


Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**SURFACE WATER CONCENTRATIONS
– MAY 2024**

FIGURE 11



Legend

- Site Area
- - - Former Management Area / Investigation Area
- Operational Area
- Source Area
- Surface Water Monitoring Location - Dry

PFOS Concentrations

- Non-detect*
- PFOS >0.008 µg/L to ≤0.02 µg/L
- PFOS >0.02 µg/L to ≤2 µg/L
- PFOS >2 µg/L to ≤20 µg/L

Note:
SW075 was collected slightly upgradient at location 'SW075 Replacement' due to SAQP location being dry.
*JBS&G notes that the laboratory limit of reporting (i.e. <0.01 µg/L) is greater than the Australian Drinking Water Guideline (0.008 µg/L).



Job No: 66022

Client: Department of Defence

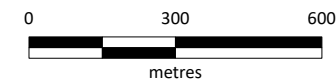
Version: Rev 0

Date: 10-Aug-2026

Drawn By: [Redacted]

Checked By: [Redacted]

Scale 1:15,500



Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**SURFACE WATER CONCENTRATIONS
– NOVEMBER 2024**

FIGURE 12

Tables

- Table 1 - Groundwater gauging
- Table 2 - Groundwater parameters
- Table 3 - Groundwater analytical results
- Table 4 - Surface water parameters
- Table 5 - Surface water analytical results

Table 1 - Groundwater Gauging Results

Property ID	Well ID	Aquifer	Top of Screen Depth (m)	Bottom of Screen Depth (m)	Well Depth (mbTOC)	TOC Elevation (mAHD)	Sampling Event	Depth to Water (mbTOC)	Groundwater Elevation (mAHD)
0066	MW001	Shallow Brighton	-	-	-	3.387	December 2023	0.515	2.872
0066	MW001	Shallow Brighton	-	-	-	3.387	May 2024	0.878	2.509
0066	MW001	Shallow Brighton	-	-	-	3.387	November 2024	0.61	2.777
0066	MW002	Shallow Brighton	-	-	-	3.199	December 2023	0.3	2.899
0066	MW002	Shallow Brighton	-	-	-	3.199	May 2024	0.65	2.549
0066	MW002	Shallow Brighton	-	-	-	3.199	November 2024	0.76	2.439
0066	MW003	Shallow Brighton	-	-	-	5.03	December 2023	1.556	3.474
0066	MW003	Shallow Brighton	-	-	-	5.03	May 2024	2.123	2.907
0066	MW003	Shallow Brighton	-	-	-	5.03	November 2024	1.88	3.15
0066	MW017	Shallow Brighton	3	9	8.73	8.52	December 2023	5.183	3.337
0066	MW017	Shallow Brighton	3	9	8.73	8.52	May 2024	5.44	3.08
0066	MW017	Shallow Brighton	3	9	8.73	8.52	November 2024	5.386	3.134
0066	MW018	Shallow Brighton	3	9	8.99	10.82	December 2023	7.433	3.387
0066	MW018	Shallow Brighton	3	9	8.99	10.82	May 2024	7.66	3.16
0066	MW018	Shallow Brighton	3	9	8.99	10.82	November 2024	7.599	3.221
0066	MW019	Shallow Brighton	3	9	9.05	9.442	December 2023	8.26	1.182
0066	MW019	Shallow Brighton	3	9	9.05	9.442	May 2024	8.469	0.973
0066	MW019	Shallow Brighton	3	9	9.05	9.442	November 2024	8.296	1.146
0066	MW025	Shallow Brighton	0.5	3.5	4.36	5.182	December 2023	3.47	1.712
0066	MW025	Shallow Brighton	0.5	3.5	4.36	5.182	May 2024	3.85	1.332
0066	MW025	Shallow Brighton	0.5	3.5	4.36	5.182	November 2024	4.01	1.172
0066	MW028	Shallow Brighton	0.8	3.8	5.03	4.34	December 2023	2.224	2.116
0066	MW028	Shallow Brighton	0.8	3.8	5.03	4.34	May 2024	2.219	2.121
0066	MW028	Shallow Brighton	0.8	3.8	5.03	4.34	November 2024	2.176	2.164
0066	MW029	Shallow Brighton	0.5	3.5	4.51	2.93	December 2023	1.889	1.041
0066	MW029	Shallow Brighton	0.5	3.5	4.51	2.93	May 2024	1.865	1.065
0066	MW029	Shallow Brighton	0.5	3.5	4.51	2.93	November 2024	1.846	1.084
0066	MW030	Shallow Brighton	0.4	3.3	2.87	2.51	December 2023	1.431	1.079
0066	MW030	Shallow Brighton	0.4	3.3	2.87	2.51	May 2024	1.489	1.021
0066	MW030	Shallow Brighton	0.4	3.3	2.87	2.51	November 2024	1.471	1.039
0066	MW031	Shallow Brighton	2	7	6.61	5.59	December 2023	3.869	1.721
0066	MW031	Shallow Brighton	2	7	6.61	5.59	May 2024	4.39	1.2
0066	MW031	Shallow Brighton	2	7	6.61	5.59	November 2024	4.412	1.178
0066	MW033	Shallow Brighton	1.8	3.2	3.15	2.949	December 2023	1.871	1.078
0066	MW033	Shallow Brighton	1.8	3.2	3.15	2.949	May 2024	2.447	0.502
0066	MW033	Shallow Brighton	1.8	3.2	3.15	2.949	November 2024	1.985	0.964
0066	MW034	Shallow Brighton	3	9	9	3.099	December 2023	2.925	0.174

Table 1 - Groundwater Gauging Results

Property ID	Well ID	Aquifer	Top of Screen Depth (m)	Bottom of Screen Depth (m)	Well Depth (mbTOC)	TOC Elevation (mAHD)	Sampling Event	Depth to Water (mbTOC)	Groundwater Elevation (mAHD)
0066	MW034	Shallow Brighton	3	9	9	3.099	May 2024	2.36	0.739
0066	MW034	Shallow Brighton	3	9	9	3.099	November 2024	3.07	0.029
0066	MW036	Shallow Brighton	1.5	6	6.05	2.378	December 2023	1.528	0.85
0066	MW036	Shallow Brighton	1.5	6	6.05	2.378	May 2024	1.875	0.503
0066	MW036	Shallow Brighton	1.5	6	6.05	2.378	November 2024	-	-
0066	MW040	Shallow Brighton	3.6	9	3.62	3.385	December 2023	2.545	0.84
0066	MW040	Shallow Brighton	3.6	9	3.62	3.385	May 2024	2.345	1.04
0066	MW040	Shallow Brighton	3.6	9	3.62	3.385	November 2024	2.173	1.212
0066	MW041	Shallow Brighton	3	6	4.04	3.554	December 2023	0.885	2.669
0066	MW041	Shallow Brighton	3	6	4.04	3.554	May 2024	1.28	2.274
0066	MW041	Shallow Brighton	3	6	4.04	3.554	November 2024	0.895	2.659
0066	MW043	Shallow Brighton	3	9	10.2	6.988	December 2023	4.765	2.223
0066	MW043	Shallow Brighton	3	9	10.2	6.988	May 2024	5.185	1.803
0066	MW043	Shallow Brighton	3	9	10.2	6.988	November 2024	4.954	2.034
0066	MW046	Shallow Brighton	2	6	6	3.116	December 2023	2.585	0.531
0066	MW046	Shallow Brighton	2	6	6	3.116	May 2024	2.74	0.376
0066	MW046	Shallow Brighton	2	6	6	3.116	November 2024	2.428	0.688
0066	MW047	Shallow Brighton	3	6	6	3.204	December 2023	2.595	0.609
0066	MW047	Shallow Brighton	3	6	6	3.204	May 2024	Dry	3.204
0066	MW047	Shallow Brighton	3	6	6	3.204	November 2024	2.695	0.509
0066	MW051	Shallow Brighton	1	5	5.02	3.493	December 2023	1.935	1.558
0066	MW051	Shallow Brighton	1	5	5.02	3.493	May 2024	2.41	1.083
0066	MW051	Shallow Brighton	1	5	5.02	3.493	November 2024	2.695	0.798
0066	MW052	Shallow Brighton	1	4.5	1.79	3.773	December 2023	1.795	1.978
0066	MW052	Shallow Brighton	1	4.5	1.79	3.773	May 2024	2.08	1.693
0066	MW052	Shallow Brighton	1	4.5	1.79	3.773	November 2024	1.705	2.068
0066	MW053	Shallow Brighton	1	4.5	5.04	3.498	December 2023	2.05	1.448
0066	MW053	Shallow Brighton	1	4.5	5.04	3.498	May 2024	2.374	1.124
0066	MW053	Shallow Brighton	1	4.5	5.04	3.498	November 2024	1.895	1.603
0066	MW054	Shallow Brighton	6	12	12.32	8.507	December 2023	7.498	1.009
0066	MW054	Shallow Brighton	6	12	12.32	8.507	May 2024	7.688	0.819
0066	MW054	Shallow Brighton	6	12	12.32	8.507	November 2024	7.595	0.912
0066	MW056	Shallow Brighton	3	12	12	7.999	December 2023	6.956	1.043
0066	MW056	Shallow Brighton	3	12	12	7.999	May 2024	7.137	0.862
0066	MW056	Shallow Brighton	3	12	12	7.999	November 2024	7.01	0.989
0066	MW057	Shallow Brighton	2	6	7.03	8.1807	December 2023	4.876	3.3047
0066	MW057	Shallow Brighton	2	6	7.03	8.1807	May 2024	5.285	2.8957

Table 1 - Groundwater Gauging Results

Property ID	Well ID	Aquifer	Top of Screen Depth (m)	Bottom of Screen Depth (m)	Well Depth (mbTOC)	TOC Elevation (mAHD)	Sampling Event	Depth to Water (mbTOC)	Groundwater Elevation (mAHD)
0066	MW057	Shallow Brighton	2	6	7.03	8.1807	November 2024	5.14	3.0407
0066	MW058	Shallow Brighton	2	6	7.02	8.403	December 2023	5.037	3.366
0066	MW058	Shallow Brighton	2	6	7.02	8.403	May 2024	5.498	2.905
0066	MW058	Shallow Brighton	2	6	7.02	8.403	November 2024	5.345	3.058
0066	MW060	Shallow Brighton	1.5	3	-	2.072	December 2023	1.45	0.622
0066	MW060	Shallow Brighton	1.5	3	-	2.072	May 2024	1.625	0.447
0066	MW060	Shallow Brighton	1.5	3	-	2.072	November 2024	1.245	0.827
0066	MW061	Shallow Brighton	4.5	9	-	6.907	December 2023	4.155	2.752
0066	MW061	Shallow Brighton	4.5	9	-	6.907	May 2024	4.63	2.277
0066	MW061	Shallow Brighton	4.5	9	-	6.907	November 2024	4.267	2.64
0066	MW062	Shallow Brighton	3	9	-	6.938	December 2023	4.14	2.798
0066	MW062	Shallow Brighton	3	9	-	6.938	May 2024	4.656	2.282
0066	MW062	Shallow Brighton	3	9	-	6.938	November 2024	4.276	2.662
0066	MW063	Shallow Brighton	7.65	10.65	-	10.885	December 2023	7.665	3.22
0066	MW063	Shallow Brighton	7.65	10.65	-	10.885	May 2024	7.92	2.965
0066	MW063	Shallow Brighton	7.65	10.65	-	10.885	November 2024	7.815	3.07
0066	MW064	Shallow Brighton	5.5	8.4	-	10.419	December 2023	6.913	3.506
0066	MW064	Shallow Brighton	5.5	8.4	-	10.419	May 2024	-	10.419
0066	MW064	Shallow Brighton	5.5	8.4	-	10.419	November 2024	7.173	3.246
0066	MW065	Shallow Brighton	6	8.9	-	10.713	December 2023	7.369	3.344
0066	MW065	Shallow Brighton	6	8.9	-	10.713	May 2024	7.62	3.093
0066	MW065	Shallow Brighton	6	8.9	-	10.713	November 2024	7.472	3.241
0066	MW067	Shallow Brighton	2.5	9	9	9.054	December 2023	5.715	3.339
0066	MW067	Shallow Brighton	2.5	9	9	9.054	May 2024	5.955	3.099
0066	MW067	Shallow Brighton	2.5	9	9	9.054	November 2024	5.869	3.185
0066	MW068	Shallow Brighton	3	7	7	2.964	December 2023	2.233	0.731
0066	MW068	Shallow Brighton	3	7	7	2.964	May 2024	2.365	0.599
0066	MW068	Shallow Brighton	3	7	7	2.964	November 2024	2.2	0.764
0066	MW069	Shallow Brighton	3	9	9	9.363	December 2023	7.858	1.505
0066	MW069	Shallow Brighton	3	9	9	9.363	May 2024	8.333	1.03
0066	MW069	Shallow Brighton	3	9	9	9.363	November 2024	7.268	2.095
0066	MW070	Shallow Brighton	3	9	9	9.503	December 2023	8.61	0.893
0066	MW070	Shallow Brighton	3	9	9	9.503	May 2024	8.236	1.267
0066	MW070	Shallow Brighton	3	9	9	9.503	November 2024	8.314	1.189
0066	MW071	Shallow Brighton	8	11	11	9.435	December 2023	8.204	1.231
0066	MW071	Shallow Brighton	8	11	11	9.435	May 2024	8.393	1.042
0066	MW071	Shallow Brighton	8	11	11	9.435	November 2024	8.292	1.143

Table 1 - Groundwater Gauging Results

Property ID	Well ID	Aquifer	Top of Screen Depth (m)	Bottom of Screen Depth (m)	Well Depth (mbTOC)	TOC Elevation (mAHD)	Sampling Event	Depth to Water (mbTOC)	Groundwater Elevation (mAHD)
0066	MW073	Shallow Brighton	3	9	9	9.799	December 2023	6.466	3.333
0066	MW073	Shallow Brighton	3	9	9	9.799	May 2024	6.69	3.109
0066	MW073	Shallow Brighton	3	9	9	9.799	November 2024	6.631	3.168
0066	MW074	Shallow Brighton	1.7	9	9	11.614	December 2023	8.348	3.266
0066	MW074	Shallow Brighton	1.7	9	9	11.614	May 2024	8.573	3.041
0066	MW074	Shallow Brighton	1.7	9	9	11.614	November 2024	8.525	3.089
0066	MW075	Shallow Brighton	4	12	12	12.92	December 2023	9.573	3.347
0066	MW075	Shallow Brighton	4	12	12	12.92	May 2024	9.812	3.108
0066	MW075	Shallow Brighton	4	12	12	12.92	November 2024	9.725	3.195
0066	MW102	Shallow Brighton	1.5	4.5	4.5	3.394	December 2023	1.03	2.364
0066	MW102	Shallow Brighton	1.5	4.5	4.5	3.394	May 2024	1.34	2.054
0066	MW102	Shallow Brighton	1.5	4.5	4.5	3.394	November 2024	1.21	2.184
0066	MW109	Shallow Brighton	7	9.9	10.04	10.377	December 2023	8.692	1.685
0066	MW109	Shallow Brighton	7	9.9	10.04	10.377	May 2024	8.923	1.454
0066	MW109	Shallow Brighton	7	9.9	10.04	10.377	November 2024	8.849	1.528
0066	MW110	Shallow Brighton	2.5	5.4	5.41	2.89	December 2023	1.396	1.494
0066	MW110	Shallow Brighton	2.5	5.4	5.41	2.89	May 2024	1.745	1.145
0066	MW110	Shallow Brighton	2.5	5.4	5.41	2.89	November 2024	1.495	1.395
0066	MW112	Shallow Brighton	7	10.9	9.94	10.569	December 2023	8.91	1.659
0066	MW112	Shallow Brighton	7	10.9	9.94	10.569	May 2024	9.2	1.369
0066	MW112	Shallow Brighton	7	10.9	9.94	10.569	November 2024	9.064	1.505
0066	MW117	Shallow Brighton	6.85	9.85	9.99	11.779	December 2023	8.141	3.638
0066	MW117	Shallow Brighton	6.85	9.85	9.99	11.779	May 2024	8.425	3.354
0066	MW117	Shallow Brighton	6.85	9.85	9.99	11.779	November 2024	8.36	3.419
0066	MW119	Shallow Brighton	4	7	7.04	5.473	December 2023	2.115	3.358
0066	MW119	Shallow Brighton	4	7	7.04	5.473	May 2024	2.47	3.003
0066	MW119	Shallow Brighton	4	7	7.04	5.473	November 2024	3.065	2.408
0066	MW121	Shallow Brighton	2.1	5.1	5.9	2.908	December 2023	2.836	0.072
0066	MW121	Shallow Brighton	2.1	5.1	5.9	2.908	May 2024	3.96	-1.052
0066	MW121	Shallow Brighton	2.1	5.1	5.9	2.908	November 2024	3.535	-0.627
0066	MW122D	Shallow Brighton	3	6	6.88	2.293	December 2023	0.236	2.057
0066	MW122D	Shallow Brighton	3	6	6.88	2.293	May 2024	0.437	1.856
0066	MW122D	Shallow Brighton	3	6	6.88	2.293	November 2024	0.445	1.848
0066	MW122S	Tertiary	0.4	1.5	1.48	1.454	December 2023	0.05	1.404
0066	MW122S	Tertiary	0.4	1.5	1.48	1.454	May 2024	0.28	1.174
0066	MW122S	Tertiary	0.4	1.5	1.48	1.454	November 2024	0.315	1.139
0066	MW201	Shallow Brighton	6.5	9.5	10	1.7	December 2023	0.388	1.312

Table 1 - Groundwater Gauging Results

Property ID	Well ID	Aquifer	Top of Screen Depth (m)	Bottom of Screen Depth (m)	Well Depth (mbTOC)	TOC Elevation (mAHD)	Sampling Event	Depth to Water (mbTOC)	Groundwater Elevation (mAHD)
0066	MW201	Shallow Brighton	6.5	9.5	10	1.7	May 2024	0.585	1.115
0066	MW201	Shallow Brighton	6.5	9.5	10	1.7	November 2024	0.45	1.25
0066	MW202	Shallow Brighton	7	10	10.5	12.39	December 2023	7.18	5.21
0066	MW202	Shallow Brighton	7	10	10.5	12.39	May 2024	7.595	4.795
0066	MW202	Shallow Brighton	7	10	10.5	12.39	November 2024	7.425	4.965
0066	MW203	Shallow Brighton	7.5	10.5	11	16.5	December 2023	10.17	6.33
0066	MW203	Shallow Brighton	7.5	10.5	11	16.5	May 2024	10.354	6.146
0066	MW203	Shallow Brighton	7.5	10.5	11	16.5	November 2024	10.39	6.11
0066	MW204	Shallow Brighton	7	10	10.5	13.74	December 2023	4.416	9.324
0066	MW204	Shallow Brighton	7	10	10.5	13.74	May 2024	4.925	8.815
0066	MW204	Shallow Brighton	7	10	10.5	13.74	November 2024	4.775	8.965
0066	MW205	Shallow Brighton	7.5	10.5	11	9.08	December 2023	0.707	8.373
0066	MW205	Shallow Brighton	7.5	10.5	11	9.08	May 2024	1.123	7.957
0066	MW205	Shallow Brighton	7.5	10.5	11	9.08	November 2024	1.065	8.015
0066	MW206	Shallow Brighton	7.8	10.8	11.3	6.29	December 2023	0.979	5.311
0066	MW206	Shallow Brighton	7.8	10.8	11.3	6.29	May 2024	1.323	4.967
0066	MW206	Shallow Brighton	7.8	10.8	11.3	6.29	November 2024	1.135	5.155
0066	MW207	Shallow Brighton	8	11	11.5	8.2	December 2023	5.729	2.471
0066	MW207	Shallow Brighton	8	11	11.5	8.2	May 2024	6.11	2.09
0066	MW207	Shallow Brighton	8	11	11.5	8.2	November 2024	5.87	2.33
0066	MW208	Shallow Brighton	7.5	10.5	11	7.69	December 2023	4.808	2.882
0066	MW208	Shallow Brighton	7.5	10.5	11	7.69	May 2024	5.145	2.545
0066	MW208	Shallow Brighton	7.5	10.5	11	7.69	November 2024	4.91	2.78
0066	MW209	Shallow Brighton	7.5	10.5	11	13.44	December 2023	9.457	3.983
0066	MW209	Shallow Brighton	7.5	10.5	11	13.44	May 2024	9.65	3.79
0066	MW209	Shallow Brighton	7.5	10.5	11	13.44	November 2024	9.52	3.92
0066	MW210	Shallow Brighton	5	8	8.5	3.17	December 2023	0.504	2.666
0066	MW210	Shallow Brighton	5	8	8.5	3.17	May 2024	0.79	2.38
0066	MW210	Shallow Brighton	5	8	8.5	3.17	November 2024	0.67	2.5
0066	MW211	Shallow Brighton	7.5	10.5	11	9.02	December 2023	5.814	3.206
0066	MW211	Shallow Brighton	7.5	10.5	11	9.02	May 2024	6.289	2.731
0066	MW211	Shallow Brighton	7.5	10.5	11	9.02	November 2024	6.35	2.67
0066	MW212	Tertiary	-	-	2.5	2.225	December 2023	0.856	1.369
0066	MW212	Tertiary	-	-	2.5	2.225	May 2024	0.908	1.317
0066	MW212	Tertiary	-	-	2.5	2.225	November 2024	0.856	1.369
0066	MW213	Tertiary	-	-	2.5	2.271	December 2023	0.89	1.381
0066	MW213	Tertiary	-	-	2.5	2.271	May 2024	0.952	1.319

Table 1 - Groundwater Gauging Results

Property ID	Well ID	Aquifer	Top of Screen Depth (m)	Bottom of Screen Depth (m)	Well Depth (mbTOC)	TOC Elevation (mAHD)	Sampling Event	Depth to Water (mbTOC)	Groundwater Elevation (mAHD)
0066	MW213	Tertiary	-	-	2.5	2.271	November 2024	0.911	1.36
0066	MW214D	Deep Brighton Group	9	12	12.6	8.361	December 2023	5.155	3.206
0066	MW214D	Deep Brighton Group	9	12	12.6	8.361	May 2024	5.399	2.962
0066	MW214D	Deep Brighton Group	9	12	12.6	8.361	November 2024	-	-
0066	MW214S	Shallow Brighton	3.5	6.5	7	8.458	December 2023	5.274	3.184
0066	MW214S	Shallow Brighton	3.5	6.5	7	8.458	May 2024	5.544	2.914
0066	MW214S	Shallow Brighton	3.5	6.5	7	8.458	November 2024	5.453	3.005
0066	MW215D	Deep Brighton Group	10	12	12.5	9.248	December 2023	6.156	3.092
0066	MW215D	Deep Brighton Group	10	12	12.5	9.248	May 2024	6.234	3.014
0066	MW215D	Deep Brighton Group	10	12	12.5	9.248	November 2024	6.151	3.097
0066	MW215S	Shallow Brighton	4.5	7.5	8	9.261	December 2023	6.021	3.24
0066	MW215S	Shallow Brighton	4.5	7.5	8	9.261	May 2024	6.23	3.031
0066	MW215S	Shallow Brighton	4.5	7.5	8	9.261	November 2024	6.164	3.097
0066	MW217D	Deep Brighton Group	6	8	8.5	4.731	December 2023	1.733	2.998
0066	MW217D	Deep Brighton Group	6	8	8.5	4.731	May 2024	1.89	2.841
0066	MW217D	Deep Brighton Group	6	8	8.5	4.731	November 2024	1.805	2.926
0066	MW217S	Tertiary	1.6	3.6	4.1	4.763	December 2023	2.729	2.034
0066	MW217S	Tertiary	1.6	3.6	4.1	4.763	May 2024	3.315	1.448
0066	MW217S	Tertiary	1.6	3.6	4.1	4.763	November 2024	2.945	1.818
0066	MW218	Deep Brighton Group	7	9	9.5	4.948	December 2023	1.934	3.014
0066	MW218	Deep Brighton Group	7	9	9.5	4.948	May 2024	2.285	2.663
0066	MW218	Deep Brighton Group	7	9	9.5	4.948	November 2024	2.185	2.763

Table 2 - Groundwater Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	TDS calc (mg/L)	pH	Redox Potential (mV)	Temp (°C)
0066	MW003	23 May 2023 09:00AM	2.08	7898	5,134	6.57	76	13.2
0066	MW003	05 Dec 2023 11:59PM	1.16	9573	6,222	6.53	-64.7	16
0066	MW003	09 May 2024 02:29AM	3.61	8361	5,435	6.81	63.1	17
0066	MW003	15 Nov 2024 10:40AM	4.1	4208	2,735	6.1	167.8	15.4
0066	MW017	23 May 2023 09:00AM	3.41	191.1	124	5	179.3	15.5
0066	MW017	06 Dec 2023 01:45AM	1.5	333.6	217	5.38	113.2	16.6
0066	MW017	08 May 2024 12:21AM	1.72	569	370	5.73	-52.9	15.3
0066	MW017	19 Nov 2024 12:30PM	8.83	229.7	149	4.57	196.6	16.9
0066	MW018	23 May 2023 09:00AM	8.61	423.1	275	5.64	19.6	16.7
0066	MW018	06 Dec 2023 03:13AM	0.94	649	422	5.58	-8.9	18.6
0066	MW018	07 May 2024 11:59PM	3.04	923	600	5.47	-108.4	16.2
0066	MW018	19 Nov 2024 10:15AM	3.07	1064	692	5.5	-55.9	15.9
0066	MW019	23 May 2023 09:00AM	6.22	538	350	5.45	148.7	16.6
0066	MW019	04 Dec 2023 02:33AM	4.73	225.2	146	6.12	100.3	23.8
0066	MW019	09 May 2024 12:26AM	5.35	686	446	5.86	-35.5	17.6
0066	MW019	14 Nov 2024 11:00AM	6.36	1013	658	4.94	280.9	18.1
0066	MW028	23 May 2023 09:00AM	1.3	1126	732	6.72	-63.4	14.7
0066	MW028	04 Dec 2023 03:51AM	0.85	1941	1,262	6.71	-87.2	22.6
0066	MW028	08 May 2024 04:47AM	0.79		-	7.17	-41.6	19.1
0066	MW028	15 Nov 2024 12:00PM	1.31	1390	904	5.19	-114.2	18.7
0066	MW029	23 May 2023 09:00AM	5.07	38340	24,921	6.64	278.5	14.1
0066	MW029	05 Dec 2023 04:06AM	2.15	15888	10,327	6.53	77.4	18.8
0066	MW029	08 May 2024 04:15AM	0.96	23232	15,101	7.31	67.5	16.4
0066	MW029	15 Nov 2024 11:30AM	1.5	26612	17,298	5.38	135.5	16.2
0066	MW030	23 May 2023 09:00AM	2.36	25696	16,702	6.71	122.5	13.9
0066	MW030	05 Dec 2023 04:41AM	0.58	33362	21,685	6.6	-60.4	18.4
0066	MW030	08 May 2024 04:04AM	0.8	19990	12,994	7.12	-79.9	15.7
0066	MW030	15 Nov 2024 11:00AM	10.98	443	288	5.35	-150	16.3
0066	MW033	23 May 2023 09:00AM	4.07	1903	1,237	6.47	-27.1	15.7
0066	MW033	04 Dec 2023 03:57AM	0.78	807	525	6.57	-39.5	18.9
0066	MW033	09 May 2024 04:08AM	1.29	1199	779	6.34	-38.5	18
0066	MW033	15 Nov 2024 09:40AM	3.89	633	411	6.33	-71.8	15.6
0066	MW034	23 May 2023 09:00AM	0.39	23002	14,951	6.33	51.5	15
0066	MW034	04 Dec 2023 12:39AM	0.71	29452	19,144	6.49	-17.5	18
0066	MW034	09 May 2024 04:12AM	1.11	42826	27,837	6.33	-115.6	17.1
0066	MW034	19 Nov 2024 01:30PM	1.6	48155	31,301	6.31	43.4	16.9
0066	MW041	23 May 2023 09:00AM	0.66	656	426	6.62	-53.9	16.3
0066	MW041	04 Dec 2023 02:35AM	0.63	851	553	6.68	-51.9	20.1
0066	MW041	09 May 2024 03:13AM	1.22	1299	844	6.48	-129.9	19.1
0066	MW041	19 Nov 2024 02:00PM	1.33	259.1	168	6.22	-40.1	20.2
0066	MW043	23 May 2023 09:00AM	4.76	3075	1,999	5.68	-19.6	15
0066	MW043	04 Dec 2023 01:05AM	0.93	3933	2,556	5.43	48.2	18.9
0066	MW043	08 May 2024 04:08AM	1.11	6356	4,131	5.48	-137.8	17.3
0066	MW043	14 Nov 2024 12:00PM	1.72	2784	1,810	5.37	86.1	17
0066	MW046	23 May 2023 09:00AM	6.19	1086	706	5.49	222.6	17.7
0066	MW046	04 Dec 2023 03:39AM	3.19	1226	797	5.83	15.5	20.9
0066	MW046	09 May 2024 04:58AM	2.05	3610	2,347	5.6	4.5	20.2
0066	MW046	15 Nov 2024 11:20AM	2.54	503	327	6.4	-2.7	18.8
0066	MW047	23 May 2023 09:00AM	5.49	746	485	6.24	172.6	13.9
0066	MW047	04 Dec 2023 03:06AM	1.81	380	247	5.32	57.1	20.4
0066	MW047	15 Nov 2024 11:40AM	9.85	6	4	5.97	194.3	15.3
0066	MW051	23 May 2023 09:00AM	2.1	617	401	5.26	129.5	17.1
0066	MW051	04 Dec 2023 02:50AM	0.93	351.4	228	5.33	41	20.8
0066	MW051	09 May 2024 06:19AM	1.92	611	397	5.37	8.3	19.1
0066	MW051	19 Nov 2024 11:30AM	2.52	307.4	200	5.57	1884	17.6
0066	MW054	23 May 2023 09:00AM	4.06	3101	2,016	4.5	212.7	14.7
0066	MW054	04 Dec 2023 01:58AM	3.43	4337	2,819	4.87	88.4	18.2
0066	MW054	09 May 2024 04:34AM	4.06	2555	1,661	4.98	112.4	16.9
0066	MW054	15 Nov 2024 10:20AM	3.61	107.6	70	4.92	1604	17.4
0066	MW061	23 May 2023 09:00AM	5.41	659	428	4.92	140.7	15.3

Table 2 - Groundwater Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	TDS calc (mg/L)	pH	Redox Potential (mV)	Temp (°C)
0066	MW061	04 Dec 2023 12:23AM	0.98	790	514	5.16	127.1	19
0066	MW061	08 May 2024 03:39AM	1.23	1249	812	5.07	-101	17.7
0066	MW061	14 Nov 2024 12:30PM	6.57	651	423	5.46	245.3	18.4
0066	MW062	23 May 2023 09:00AM	3.5	795	517	4.76	213	15.4
0066	MW062	04 Dec 2023 12:40AM	1.29	995	647	4.92	210.3	19.6
0066	MW062	08 May 2024 03:53AM	1.82	1574	1,023	5.05	-72.8	17.7
0066	MW062	14 Nov 2024 01:00PM	4.61	25.1	16	5.17	167.9	19.5
0066	MW063	23 May 2023 09:00AM	1.97	2455	1,596	4.63	238.4	16.3
0066	MW063	06 Dec 2023 12:38AM	1.37	2549	1,657	5.38	35.3	17.8
0066	MW063	08 May 2024 01:28AM	1.65	4713	3,063	4.84	-56.2	17.6
0066	MW063	14 Nov 2024 02:00PM	9.33	42.4	28	6.02	80.4	17.4
0066	MW064	23 May 2023 09:00AM	3.17	831	540	6.79	176	15.4
0066	MW064	03 Dec 2023 11:36PM	2.85	681	443	6.49	107.4	19
0066	MW064	08 May 2024 01:51AM	3.63	1116	725	6.56	-15.9	17.9
0066	MW064	14 Nov 2024 01:30PM	6.77	2033	1,321	6.73	46.6	18.8
0066	MW067	23 May 2023 09:00AM	6.17	168.2	109	5.86	235.3	15.8
0066	MW067	06 Dec 2023 12:45AM	3.3	418.3	272	5.45	10.7	16.8
0066	MW067	08 May 2024 12:16AM	4.98	446.4	290	6.31	127.4	17.5
0066	MW067	19 Nov 2024 09:45AM	7.66	1144	744	5.56	113.7	16.1
0066	MW068	23 May 2023 09:00AM	1.79	4346	2,825	6.81	-20.3	14.1
0066	MW068	04 Dec 2023 03:24AM	0.9	9766	6,348	6.85	-26.1	18.5
0066	MW068	09 May 2024 03:37AM	0.85	14524	9,441	6.75	-148.3	17.3
0066	MW068	19 Nov 2024 01:00PM	1.38	25131	16,335	6.74	-560	16
0066	MW069	23 May 2023 09:00AM	8.99	1265	822	6.25	160.5	14.6
0066	MW069	04 Dec 2023 02:07AM	7.4	2735	1,778	6.71	35.7	15.3
0066	MW069	09 May 2024 06:24AM	4.67	997	648	5.35	96.3	18.3
0066	MW069	14 Nov 2024 09:15AM	8.53	84.3	55	5.12	178.2	17.4
0066	MW070	04 Dec 2023 03:08AM	4.38	638	415	5.75	164.3	21.5
0066	MW070	14 Nov 2024 10:15AM	7.99	537	349	5.22	202	18.1
0066	MW071	23 May 2023 09:00AM	6.45	798	519	5.68	138.1	13.4
0066	MW071	06 Dec 2023 01:27AM	6.93	732	476	6.93	20.6	18.5
0066	MW071	09 May 2024 12:51AM	3.43	1337	869	6.01	-52.6	19.6
0066	MW071	14 Nov 2024 09:45AM	10.64	573	372	5.52	268.8	17.2
0066	MW074	23 May 2023 09:00AM	5.08	8026	5,217	5.01	192.2	14.3
0066	MW074	06 Dec 2023 01:19AM	2.6	9889	6,428	4.81	173.5	17.4
0066	MW074	08 May 2024 12:33AM	2.2	16292	10,590	5.01	-31.1	16.5
0066	MW074	15 Nov 2024 02:00PM	4.6	7756	5,041	5.14	1964	17.6
0066	MW075	23 May 2023 09:00AM	4.69	3162	2,055	5.2	162.3	15.2
0066	MW075	06 Dec 2023 01:38AM	1.39	3923	2,550	4.5	233.7	19.8
0066	MW075	08 May 2024 12:45AM	1.71	6010	3,907	4.74	-64.7	16.7
0066	MW075	15 Nov 2024 12:30PM	2.67	2730	1,775	6.17	283.9	18.8
0066	MW102	23 May 2023 09:00AM	1.27	405	263	6.82	-46.7	16.6
0066	MW102	04 Dec 2023 02:17AM	0.71	745	484	7	-49.5	20.9
0066	MW102	09 May 2024 02:24AM	1.28	713	463	6.73	-172.4	18.7
0066	MW102	19 Nov 2024 02:30PM	0.89	745	484	6.83	-89.2	18
0066	MW109	23 May 2023 09:00AM	2.96	289.2	188	6.09	152.5	14.1
0066	MW109	04 Dec 2023 02:17AM	3.77	435	283	6.5	89.7	20.9
0066	MW109	09 May 2024 04:53AM	2.1	337.8	220	5.96	71.4	17.7
0066	MW109	14 Nov 2024 11:30AM	5.75	2070	1,346	554	2302	17.3
0066	MW110	23 May 2023 09:00AM	3.33	4323	2,810	6.91	-57.1	14.8
0066	MW110	03 Dec 2023 11:19PM	1.15	11985	7,790	6.75	-58.2	17.7
0066	MW110	09 May 2024 01:10AM	1.12	11790	7,664	6.67	-205.6	18.1
0066	MW110	19 Nov 2024 01:40PM	9.28	74.1	48	6.29	40.6	17.2
0066	MW112	23 May 2023 09:00AM	7.07	355.4	231	6.21	172.2	14.6
0066	MW112	04 Dec 2023 03:16AM	4.91	261.5	170	6.59	118	20.5
0066	MW112	08 May 2024 03:41AM	4.87	556	361	6.63	108.6	17.3
0066	MW112	15 Nov 2024 12:30PM	4.29	1098	714	6.11	76.1	18.1
0066	MW117	23 May 2023 09:00AM	8.94	438.9	285	5.21	209.3	15.7
0066	MW117	06 Dec 2023 02:51AM	5.09	228.3	148	5.2	176.4	20.3
0066	MW117	07 May 2024 11:40PM	5.64	702	456	5.09	48.5	15.3

Table 2 - Groundwater Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	TDS calc (mg/L)	pH	Redox Potential (mV)	Temp (°C)
0066	MW117	19 Nov 2024 11:00AM	7.91	441.5	287	5.63	205.7	16.2
0066	MW121	23 May 2023 09:00AM	2.54	2704	1,758	5.84	93.6	13.9
0066	MW121	03 Dec 2023 10:03PM	1.96	3016	1,960	5.92	1.4	16.7
0066	MW121	06 May 2024 11:28PM	3.05	4405	2,863	5.88	38.5	14
0066	MW121	15 Nov 2024 10:30AM	7.09	3207	2,085	6.05	63.5	20.3
0066	MW122D	23 May 2023 09:00AM	4.77	1600	1,040	5.71	138.6	13.6
0066	MW122D	03 Dec 2023 10:16PM	1.24	1844	1,199	5.65	29.3	16.6
0066	MW122D	06 May 2024 11:40PM	3.88	3367	2,189	5.75	33.2	14.4
0066	MW122D	19 Nov 2024 09:00AM	5.79	3803	2,472	5.84	61	21
0066	MW122S	04 Dec 2023 10:20PM	1.93	28474	18,508	6.26	12.7	17.7
0066	MW122S	06 May 2024 11:48PM	1.57	65042	42,277	5.89	-28.5	13.9
0066	MW122S	19 Nov 2024 09:00AM	6.61	38457	24,997	6.04	192.4	17.5
0066	MW202	23 May 2023 09:00AM	2.85	4052	2,634	4.51	196.1	14.6
0066	MW202	05 Dec 2023 03:36AM	2.67	4895	3,182	4.86	244.8	17.7
0066	MW202	08 May 2024 02:36AM	2.13	4518	2,937	5.48	142.3	16.9
0066	MW202	14 Nov 2024 01:50PM	2.92	2512	1,633	5.3	66.1	17
0066	MW204	23 May 2023 09:00AM	2.71	3569	2,320	4.79	210.5	15.9
0066	MW204	05 Dec 2023 03:02AM	1.3	5066	3,293	5.27	234.3	19
0066	MW204	08 May 2024 02:20AM	2.14	3653	2,374	5.82	117.4	16.7
0066	MW204	15 Nov 2024 08:20AM	3.49	2137	1,389	5.01	82.8	16.2
0066	MW206	23 May 2023 09:00AM	0.95	1226	797	5.56	101.7	14.9
0066	MW206	05 Dec 2023 02:44AM	1.24	1533	996	5.76	15.5	20.3
0066	MW206	08 May 2024 01:40AM	2.55	1388	902	6.31	82.1	17.1
0066	MW206	15 Nov 2024 08:40AM	3.63	83.6	54	5.18	265.8	16.1
0066	MW207	23 May 2023 09:00AM	1.18	499.9	325	5.38	163.1	14.6
0066	MW207	05 Dec 2023 03:00AM	1.51	594	386	5.7	41.6	17.1
0066	MW207	07 May 2024 04:44AM	2.76	1663	1,081	5.67	1.5	16
0066	MW207	15 Nov 2024 10:00AM	2.11	299.4	195	5.63	82.4	15.7
0066	MW208	23 May 2023 09:00AM	1.37	1351	878	5.44	170	14.7
0066	MW208	05 Dec 2023 03:14AM	5.2	1470	956	6.08	37.3	16.4
0066	MW208	07 May 2024 04:58AM	1.38	2882	1,873	5.8	-57.2	15.7
0066	MW208	15 Nov 2024 09:20AM	1.64	821	534	5.45	48.4	16.1
0066	MW209	23 May 2023 09:00AM	1.83	2738	1,780	5.34	19.4	14.1
0066	MW209	05 Dec 2023 03:27AM	0.78	2973	1,932	5.57	-22.7	16.4
0066	MW209	07 May 2024 05:12AM	2.03	5710	3,712	5.37	-21.5	15.2
0066	MW209	15 Nov 2024 09:00AM	1	1511	982	5.42	-87.2	15.7
0066	MW210	23 May 2023 09:00AM	2.15	2731	1,775	5.57	156	15
0066	MW210	05 Dec 2023 11:24PM	1.43	3442	2,237	5.48	173.1	17.8
0066	MW210	09 May 2024 03:42AM	3.16	2778	1,806	5.94	51.4	17
0066	MW210	14 Nov 2024 11:30AM	5.05	2728	1,773	5.46	156.3	16.1
0066	MW212	23 May 2023 09:00AM	4.38	21243	13,808	6.6	-8.1	12.8
0066	MW212	03 Dec 2023 10:45PM	4.87	22330	14,515	6.82	-9.7	19.5
0066	MW212	07 May 2024 12:10AM	3.86	40745	26,484	6.56	5.8	13.7
0066	MW212	15 Nov 2024 10:00AM	6.59	41553	27,009	6.66	62.5	20.7
0066	MW213	23 May 2023 09:00AM	1.46	46026	29,917	5.98	22.7	13.5
0066	MW213	03 Dec 2023 10:33PM	1.63	47534	30,897	6.1	3.9	18.1
0066	MW213	06 May 2024 11:57PM	4.58	78033	50,721	6.58	16.5	13.7
0066	MW213	15 Nov 2024 09:30AM	4.51	92270	59,976	6.03	35.5	21.7
0066	MW215D	23 May 2023 09:00AM	2.15	299.2	194	4.35	299.2	14.7
0066	MW215D	06 Dec 2023 12:30AM	4.73	1511	982	4.94	23	16.7
0066	MW215D	07 May 2024 12:40AM	1.71	1506	979	5.57	162.5	15.5
0066	MW215D	15 Nov 2024 02:30PM	6.07	1355	881	4.75	250.2	16.2
0066	MW215S	23 May 2023 09:00AM	2.01	793	515	4.62	299.2	14.9
0066	MW215S	06 Dec 2023 12:31AM	2.67	974	633	4.62	31.9	16
0066	MW215S	07 May 2024 11:52PM	4.88	943	613	6.09	93.5	15.6
0066	MW215S	15 Nov 2024 02:00PM	10.22	1024	666	4.23	176.3	16.2
0066	MW217D	23 May 2023 09:00AM	1.88	9234	6,002	6.47	72.8	15.6
0066	MW217D	05 Dec 2023 05:08AM	0.77	11870	7,716	6.48	24.3	17.2
0066	MW217D	08 May 2024 05:13AM	1.02	9459	6,148	7.05	14.3	17.4
0066	MW217D	15 Nov 2024 11:10AM	4.62	4688	3,047	6.24	108.3	16.1

Table 2 - Groundwater Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	TDS calc (mg/L)	pH	Redox Potential (mV)	Temp (°C)
0066	MW218	23 May 2023 09:00AM	3.13	6548	4,256	6.37	67.6	15.5
0066	MW218	05 Dec 2023 11:41PM	0.86	7962	5,175	6.44	-79.5	16.4
0066	MW218	08 May 2024 05:27AM	1.16	7617	4,951	7.12	26.4	18.4
0066	MW218	14 Nov 2024 11:10AM	1.74	3351	2,178	6.06	142.5	15.3

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids						
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001
NHMRC Australian Drinking Water Guidelines (2025)	1		0.03		0.008							0.2		
ANZG 2026 Freshwater/Interim marine (99% species protection)					0.02							19		
PFAS NEMP 2025 Recreational water quality guideline			2		2							10		

Location Code	Date	Lab Name	Lab Report Number														
MW003	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW003	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW003	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW017	06 Dec 2023	ALSE-Melbourne	EM2321752	0.44	0.73	11.30	0.36	1.89	-	<0.02	0.10	0.22	0.62	0.14	0.44	<0.02	<0.02
MW017	08 May 2024	ALSE-Melbourne	EM2407537	0.25	0.28	6.04	0.17	2.20	-	<0.02	<0.1	0.15	0.44	0.08	0.29	<0.02	<0.02
MW017	19 Nov 2024	Eurofins Environment ANZ	1162531	0.29	0.29	6.20	0.15	1.20	<0.01	<0.01	0.14	0.16	0.45	0.12	0.31	<0.01	<0.01
MW018	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.08	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW018	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.08	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW018	19 Nov 2024	Eurofins Environment ANZ	1162531	0.01	0.02	0.13	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW019	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW019	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.08	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
MW019	14 Nov 2024	Eurofins Environment ANZ	1161464	0.03	0.02	0.07	<0.01	<0.01	<0.01	<0.01	<0.05	0.02	0.04	0.01	0.01	<0.01	<0.01
MW025	06 Dec 2023	ALSE-Melbourne	EM2321752	0.05	0.02	0.69	0.10	3.56	-	<0.02	<0.1	<0.02	0.09	<0.02	0.06	<0.02	<0.02
MW025	09 May 2024	ALSE-Melbourne	EM2407537	0.08	0.03	0.75	0.09	4.32	-	<0.02	<0.1	<0.02	0.10	<0.02	0.06	<0.02	<0.02
MW028	04 Dec 2023	ALSE-Melbourne	EM2321752	0.06	0.10	1.16	0.06	0.49	-	<0.02	<0.1	0.04	0.10	<0.02	0.06	<0.02	<0.02
MW028	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.36	0.03	0.51	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
MW028	15 Nov 2024	Eurofins Environment ANZ	1161464	0.03	0.05	0.31	0.04	0.32	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	0.03	<0.01	<0.01
MW029	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW029	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.04	<0.02	<0.01	-	<0.02	<0.1	0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW029	15 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.02	0.09	<0.01	0.03	<0.01	<0.01	<0.05	0.05	0.07	0.01	0.01	<0.01	<0.01
MW030	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW030	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW030	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW033	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW033	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW033	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW034	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW034	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW034	19 Nov 2024	Eurofins Environment ANZ	1162531	<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
MW036	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW036	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW041	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	0.03	0.30	<0.02	0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02
MW041	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	0.02	0.32	<0.02	0.03	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02
MW041	19 Nov 2024	Eurofins Environment ANZ	1162531	0.01	0.02	0.37	<0.01	0.03	<0.01	<0.01	<0.05	0.04	0.04	<0.01	0.01	<0.01	<0.01
MW043	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW043	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW043	14 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW046	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW046	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.03	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW046	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	0.03	<0.01	0.05	<0.01	<0.01	<0.05	0.03	0.03	<0.01	0.01	<0.01	<0.01
MW047	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.10	<0.02	0.10	-	<0.02	<0.1	<0.02	0.03	<0.02	0.02	<0.02	<0.02
MW047	15 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.02	0.11	<0.01	0.12	<0.01	<0.01	<0.05	0.02	0.04	<0.01	0.03	<0.01	<0.01
MW051	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW051	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.05	<0.02	0.05	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02
MW051	19 Nov 2024	Eurofins Environment ANZ	1162531	0.02	<0.01	0.07	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
MW054	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	0.02	0.25	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02
MW054	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	0.03	0.29	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02
MW054	15 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.04	0.19	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

	PFAS - Perfluoroalkyl Carboxylic Acids				PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.001	0.001	0.001	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
NHMRC Australian Drinking Water Guidelines (2025)																0.03		
ANZG 2026 Freshwater/Interim marine (99% species protection)																		
PFAS NEMP 2025 Recreational water quality guideline																2		

Location Code	Date	Lab Name	Lab Report Number																		
MW003	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW017	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.20	15.20	16.20
MW017	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.24	9.45	10.00
MW017	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.40	8.87	9.47
MW018	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
MW018	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW018	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.16	0.18
MW019	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW019	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10	0.12	0.12
MW019	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.18	0.20
MW025	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	0.04	<0.05	4.25	4.45	4.63
MW025	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	0.05	<0.05	5.07	5.31	5.52
MW028	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.65	1.91	2.07
MW028	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.87	0.89	0.92
MW028	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.63	0.73	0.82
MW029	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW029	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.06	0.06
MW029	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.28	0.31
MW030	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW030	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW030	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
MW033	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW033	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW033	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW034	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW036	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04
MW036	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW041	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.36	0.39
MW041	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	0.38	0.40
MW041	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.40	0.50	0.52
MW043	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW043	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW046	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
MW046	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW046	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.15	0.15
MW047	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02									

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids						
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001
NHMRC Australian Drinking Water Guidelines (2025)	1		0.03		0.008							0.2		
ANZG 2026 Freshwater/Interim marine (99% species protection)					0.02							19		
PFAS NEMP 2025 Recreational water quality guideline			2		2							10		

Location Code	Date	Lab Name	Lab Report Number														
MW061	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.24	<0.02	0.06	-	<0.02	<0.1	<0.02	0.04	<0.02	0.02	<0.02	<0.02
MW061	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.25	<0.02	0.07	-	<0.02	<0.1	<0.02	0.04	<0.02	0.03	<0.02	<0.02
MW061	14 Nov 2024	Eurofins Environment ANZ	1161464	-	-	0.06	-	0.02	-	-	-	-	-	-	0.02	-	-
MW062	04 Dec 2023	ALSE-Melbourne	EM2321752	0.02	0.02	0.26	<0.02	0.05	-	<0.02	<0.1	0.02	0.07	<0.02	0.03	<0.02	<0.02
MW062	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	0.02	0.26	<0.02	0.06	-	<0.02	<0.1	0.03	0.07	<0.02	0.03	<0.02	<0.02
MW062	14 Nov 2024	Eurofins Environment ANZ	1161464	0.03	0.03	0.27	<0.01	0.07	<0.01	<0.01	<0.05	0.03	0.08	0.02	0.03	<0.01	<0.01
MW063	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW063	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW063	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW064	04 Dec 2023	ALSE-Melbourne	EM2321752	0.02	0.03	0.15	<0.02	0.52	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02
MW064	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.16	<0.02	0.56	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01	<0.02	<0.02
MW064	14 Nov 2024	Eurofins Environment ANZ	1161464	0.17	0.19	0.25	<0.01	0.15	<0.01	<0.01	<0.05	0.04	0.13	0.03	<0.01	<0.01	<0.01
MW067	06 Dec 2023	ALSE-Melbourne	EM2321752	2.32	5.02	62.50	0.87	4.09	-	<0.02	0.80	2.17	11.60	1.46	2.06	<0.02	<0.02
MW067	08 May 2024	ALSE-Melbourne	EM2407537	2.70	5.11	75.50	1.16	5.34	-	<0.02	1.00	2.24	12.20	1.71	2.63	<0.02	<0.02
MW067	19 Nov 2024	Eurofins Environment ANZ	1162531	1.80	2.90	50.00	0.44	1.90	<0.01	<0.01	0.54	1.90	11.00	0.99	2.00	<0.01	<0.01
MW068	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	0.02	0.23	<0.02	0.15	-	<0.02	<0.1	0.04	0.07	<0.02	0.01	<0.02	<0.02
MW068	09 May 2024	ALSE-Melbourne	EM2407537	0.02	<0.02	0.24	<0.02	0.17	-	<0.02	<0.1	0.04	0.07	<0.02	0.02	<0.02	<0.02
MW068	19 Nov 2024	Eurofins Environment ANZ	1162531	0.02	0.03	0.14	<0.01	0.09	<0.01	<0.01	<0.05	0.03	0.05	0.01	<0.01	<0.01	<0.01
MW069	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW069	09 May 2024	ALSE-Melbourne	EM2407537	0.22	0.05	0.04	<0.02	<0.01	-	<0.02	<0.1	0.05	0.16	<0.02	<0.01	<0.02	<0.02
MW069	14 Nov 2024	Eurofins Environment ANZ	1161464	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.46	0.07	<0.01	<0.01	<0.01	<0.01
MW070	04 Dec 2023	ALSE-Melbourne	EM2321752	0.09	0.24	4.27	<0.02	0.01	-	<0.02	<0.1	0.04	0.18	0.08	0.08	<0.02	<0.02
MW070	14 Nov 2024	Eurofins Environment ANZ	1161464	0.05	0.12	3.00	0.01	<0.01	<0.01	<0.01	<0.05	0.03	0.15	0.09	0.12	<0.01	<0.01
MW071	06 Dec 2023	ALSE-Melbourne	EM2321752	0.04	0.06	0.38	<0.02	0.01	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.01	<0.02	<0.02
MW071	09 May 2024	ALSE-Melbourne	EM2407537	0.02	0.05	0.51	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.07	0.02	0.01	<0.02	<0.02
MW071	14 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.04	0.30	<0.01	<0.01	<0.01	<0.01	<0.05	0.01	0.06	0.02	0.02	<0.01	<0.01
MW074	06 Dec 2023	ALSE-Melbourne	EM2321752	0.68	0.66	3.27	0.09	0.57	-	<0.02	0.10	0.22	0.97	0.12	0.15	<0.02	<0.02
MW074	08 May 2024	ALSE-Melbourne	EM2407537	1.07	0.48	3.83	0.07	0.53	-	<0.02	0.20	0.29	1.06	0.16	0.14	<0.02	<0.02
MW074	15 Nov 2024	Eurofins Environment ANZ	1161464	0.95	0.79	4.20	0.08	0.23	<0.01	<0.01	0.09	0.26	1.30	0.23	0.20	<0.01	<0.01
MW075	06 Dec 2023	ALSE-Melbourne	EM2321752	8.28	3.22	1.65	0.11	1.22	-	<0.02	1.60	2.85	9.69	0.23	0.09	<0.02	<0.02
MW075	08 May 2024	ALSE-Melbourne	EM2407537	8.68	2.62	2.41	0.18	2.83	-	<0.02	2.10	2.74	9.33	0.27	0.15	<0.02	<0.02
MW075	15 Nov 2024	Eurofins Environment ANZ	1161464	6.60	2.70	1.60	0.09	1.30	<0.01	<0.01	1.30	2.10	8.00	0.21	0.09	<0.01	<0.01
MW102	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.06	<0.02	0.34	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02
MW102	09 May 2024	ALSE-Melbourne	EM2407537	0.02	<0.02	0.11	<0.02	0.48	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02
MW102	19 Nov 2024	Eurofins Environment ANZ	1162531	0.01	<0.01	0.08	<0.01	0.36	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
MW109	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
MW109	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
MW109	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	<0.01	0.01	0.02	<0.01	<0.01
MW110	04 Dec 2023	ALSE-Melbourne	EM2321752	0.14	0.15	0.48	<0.02	0.02	-	<0.02	<0.1	0.04	0.24	0.05	0.04	<0.02	<0.02
MW110	09 May 2024	ALSE-Melbourne	EM2407537	0.06	0.04	0.18	<0.02	0.04	-	<0.02	<0.1	0.02	0.08	<0.02	0.01	<0.02	<0.02
MW110	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW112	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW112	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW112	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW117	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW117	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW117	19 Nov 2024	Eurofins Environment ANZ	1162531	<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
MW121	04 Dec 2023	ALSE-Melbourne	EM2321752	0.14	0.17	1.25	0.10	2.65	-	0.02	<0.1	0.13	0.46	0.08	0.12	<0.02	<0.02

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

				PFAS - Perfluoroalkyl Carboxylic Acids				PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides								PFAS		
				Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS	
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.001	0.001	0.001	0.001	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
NHMRC Australian Drinking Water Guidelines (2025)																			0.03			
ANZG 2026 Freshwater/Interim marine (99% species protection)																						
PFAS NEMP 2025 Recreational water quality guideline																			2			
Location Code	Date	Lab Name	Lab Report Number																			
MW061	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.30	0.36	0.36	
MW061	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.39	0.39	
MW061	14 Nov 2024	Eurofins Environment ANZ	1161464	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	0.08	-	-	
MW062	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.45	0.47	
MW062	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.45	0.47	
MW062	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	0.53	0.57	
MW063	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03	
MW063	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03	
MW063	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1	
MW064	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67	0.73	0.76	
MW064	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.72	0.77	0.77	
MW064	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.40	0.77	1.03	
MW067	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	66.60	87.00	92.90	
MW067	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	80.80	103.00	111.00	
MW067	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	51.90	70.13	74.11	
MW068	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	0.50	0.52	
MW068	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41	0.56	0.56	
MW068	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.34	0.37	
MW069	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW069	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.47	0.64	
MW069	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.57	0.60	
MW070	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.28	4.75	4.99	
MW070	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.00	3.44	3.59	
MW071	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.39	0.52	0.58	
MW071	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.51	0.63	0.68	
MW071	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.30	0.43	0.47	
MW074	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.84	6.08	6.83	
MW074	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05														

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids						
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001
NHMRC Australian Drinking Water Guidelines (2025)	1		0.03		0.008							0.2		
ANZG 2026 Freshwater/Interim marine (99% species protection)					0.02							19		
PFAS NEMP 2025 Recreational water quality guideline			2		2							10		

Location Code	Date	Lab Name	Lab Report Number														
MW121	07 May 2024	ALSE-Melbourne	EM2407537	1.73	1.44	11.30	0.69	20.90	-	0.05	1.00	1.58	4.50	0.98	1.27	0.10	<0.02
MW121	15 Nov 2024	Eurofins Environment ANZ	1161464	0.48	0.42	2.30	0.16	1.50	<0.01	<0.01	0.23	0.31	1.20	0.23	0.26	<0.01	<0.01
MW122D	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW122D	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW122D	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW122S	05 Dec 2023	ALSE-Melbourne	EM2321752	0.15	0.10	0.54	<0.02	0.26	-	<0.02	<0.1	0.04	0.16	<0.02	0.02	<0.02	<0.02
MW122S	07 May 2024	ALSE-Melbourne	EM2407537	0.04	<0.02	0.31	<0.02	0.16	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW122S	19 Nov 2024	Eurofins Environment ANZ	1162531	0.03	0.03	0.33	0.01	0.32	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
MW202	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW202	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW202	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW204	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW204	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW204	14 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW206	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW206	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW206	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW207	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW207	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW207	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW208	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW208	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW208	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW209	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW209	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW209	15 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW210	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW210	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW210	14 Nov 2024	Eurofins Environment ANZ	1161464	<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
MW212	04 Dec 2023	ALSE-Melbourne	EM2321752	0.35	0.61	7.02	1.04	27.50	-	<0.02	<0.1	0.19	0.71	0.17	0.69	<0.02	<0.02
MW212	07 May 2024	ALSE-Melbourne	EM2407537	0.35	0.28	6.36	1.64	44.20	-	<0.02	<0.1	0.11	0.42	0.16	0.57	<0.02	<0.02
MW212	15 Nov 2024	Eurofins Environment ANZ	1161464	0.25	0.33	4.60	0.53	21.00	0.03	<0.01	<0.05	0.07	0.40	0.20	0.39	0.02	<0.01
MW213	04 Dec 2023	ALSE-Melbourne	EM2321752	1.00	1.25	11.00	0.22	0.63	-	<0.02	<0.1	0.31	1.36	0.31	0.75	<0.02	<0.02
MW213	07 May 2024	ALSE-Melbourne	EM2407537	0.88	0.50	9.96	0.19	0.71	-	<0.02	<0.1	0.19	0.87	0.27	0.64	<0.02	<0.02
MW213	15 Nov 2024	Eurofins Environment ANZ	1161464	0.89	0.76	6.70	0.10	0.35	<0.01	<0.01	0.08	0.18	1.00	0.19	0.45	<0.01	<0.01
MW214D	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.08	<0.02	0.23	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW214D	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.09	<0.02	0.19	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW214S	15 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.02	0.20	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
MW215D	06 Dec 2023	ALSE-Melbourne	EM2321752	0.29	0.38	2.33	0.09	0.49	-	<0.02	<0.1	0.05	0.32	0.06	0.09	<0.02	<0.02
MW215D	08 May 2024	ALSE-Melbourne	EM2407537	0.34	0.30	2.19	0.05	0.43	-	<0.02	<0.1	0.05	0.26	0.06	0.09	<0.02	<0.02
MW215D	15 Nov 2024	Eurofins Environment ANZ	1161464	0.21	0.33	2.10	0.09	0.36	<0.01	<0.01	<0.05	0.07	0.30	0.07	0.11	<0.01	<0.01
MW215S	06 Dec 2023	ALSE-Melbourne	EM2321752	7.99	8.97	48.20	2.53	36.30	-	<0.02	1.00	2.83	14.20	1.76	2.51	<0.02	<0.02
MW215S	08 May 2024	ALSE-Melbourne	EM2407537	9.58	11.10	63.20	3.37	44.70	-	<0.02	1.40	2.66	20.80	1.92	2.61	<0.02	<0.02
MW215S	15 Nov 2024	Eurofins Environment ANZ	1161464	4.10	4.30	21.00	0.66	12.00	<0.01	<0.01	0.59	1.40	8.20	0.84	0.99	0.01	<0.01
MW217D	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW217D	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW217D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.02	<0.01	0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW218	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

[illegible]

Location Code	Date	Lab Name	Lab Report Number																		
MW121	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	0.20	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.20	43.50	46.70
MW121	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.80	6.51	7.31
MW122D	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW122S	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.80	1.17	1.27
MW122S	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47	0.51	0.51
MW122S	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.65	0.70	0.75
MW202	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW202	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW202	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW204	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW204	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW204	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW206	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW206	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW206	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW207	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW209	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW210	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW212	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.50	36.60	38.30
MW212	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.60	52.20	54.40
MW212	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	25.60	26.91	27.92
MW213	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.60	15.40	16.80
MW213	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.70	13.50	14.40
MW213	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.05	9.84	10.99
MW214D	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.31	0.31
MW214D	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.28	0.28
MW214S	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.30	0.32
MW215D	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.82	3.63	4.10
MW215D	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.62	3.42	3.87
MW215D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.46	3.22	3.74
MW215S	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	84.50	115.00	126.00
MW215S	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	108.00	147.00	166.00
MW215S	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	33.00	49.17	55.84
MW217D	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW217D	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW217D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW218	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

				PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids						
				Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001
NHMRC Australian Drinking Water Guidelines (2025)				1		0.03		0.008							0.2		
ANZG 2026 Freshwater/Interim marine (99% species protection)								0.02							19		
PFAS NEMP 2025 Recreational water quality guideline						2		2							10		

Location Code	Date	Lab Name	Lab Report Number														
MW218	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02
MW218	14 Nov 2024	Eurofins Environment ANZ	1161464	<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

Environmental Standards

NHMRC Australian Drinking Water Guidelines (2025)
Australian and New Zealand Guidelines (ANZG) (2026) for fresh and marine water quality
HEPA, 2025

Table 3 December 2023 to November 2024 Primary Groundwater Analytical Results Table

				PFAS - Perfluoroalkyl Carboxylic Acids				PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
				Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.001	0.001	0.001	0.001	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
NHMRC Australian Drinking Water Guidelines (2025)																			0.03		
ANZG 2026 Freshwater/Interim marine (99% species protection)																					
PFAS NEMP 2025 Recreational water quality guideline																			2		

Location Code	Date	Lab Name	Lab Report Number																		
MW218	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1

Environmental Standards

NHMRC Australian Drinking Water Guidelines (2025)

Australian and New Zealand Guidelines (ANZG) (2026) for fresh and marine water quality

HEPA, 2025

Table 4 - Surface Water Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	pH	Redox Potential (mV)	Temp (°C)	Sample Comments ¹
0066	SW001	23 May 2023 09:30AM	9.05	41,232	7.97	105.5	14.1	-
0066	SW001	06 Dec 2023 02:45AM	6.53	1,834	8.18	-14.4	17.6	Drain outlet clogged by sand. Samples from pit immediately north
0066	SW002	23 May 2023 09:30AM	6.36	40,673	7.81	239.5	13.4	-
0066	SW003	23 May 2023 09:30AM	7.2	40,965	8	118.1	13.1	-
0066	SW004	23 May 2023 09:30AM	7.29	41,257	7.68	87.7	14.5	-
0066	SW004	05 Dec 2023 01:51AM	2.49	54,684	7.37	-8.3	26.2	-
0066	SW005	23 May 2023 09:30AM	8.11	539	8.53	300.9	14.4	-
0066	SW005	06 Dec 2023 02:16AM	8.03	335	7.46	8.2	18.2	Rubbish around pipe outlet
0066	SW006	23 May 2023 09:30AM	5.92	11,270	7.92	138.8	13.1	-
0066	SW007	23 May 2023 09:30AM	5.62	29,924	6.92	105.6	13.6	-
0066	SW007	04 Dec 2023 12:23AM	4.16	33,413	7.17	-13.3	23.5	Sampled at slack tide
0066	SW009	23 May 2023 09:30AM	5.73	34,919	7.17	-5.7	11.8	-
0066	SW009	05 Dec 2023 04:12AM	5.92	55,723	7.53	3.8	28.8	Sampled at slack tide
0066	SW010	23 May 2023 09:30AM	8.2	66	6.82	78.6	12.6	-
0066	SW010	05 Dec 2023 03:52AM	3.54	757	6.69	-12.2	18.6	Sheen on surface of water body
0066	SW014	23 May 2023 09:30AM	5.27	4,995	7.55	97.5	13.4	-
0066	SW014	05 Dec 2023 04:54AM	9.59	7,655	9.56	-32.1	25.6	Sheen and foaming on surface of pond
0066	SW015	23 May 2023 09:30AM	12.44	3,453	7.64	139.3	15.5	-
0066	SW015	04 Dec 2023 11:17PM	0.25	4,200	7.15	-25.4	22.6	Plant matter on surface
0066	SW016	23 May 2023 09:30AM	2.55	1,229	7.47	63.2	13.8	-
0066	SW016	04 Dec 2023 11:13PM	0.01	1,833	7.86	-30.9	22.1	-
0066	SW017	23 May 2023 09:30AM	5.36	36,729	7.07	62.2	14.7	-
0066	SW017	05 Dec 2023 11:26PM	3.13	40,979	7.25	-128.6	18.2	Sampled on outgoing/slack tide
0066	SW018	23 May 2023 09:30AM	6.58	19,156	7.09	42.1	10.5	-
0066	SW018	03 Dec 2023 11:38PM	5.81	8,491	6.8	4.6	20.6	-
0066	SW019	23 May 2023 09:30AM	7.07	376	6.91	57.3	12.1	-
0066	SW019	03 Dec 2023 11:49PM	4.73	385	6.32	-8.6	18.5	Algae and plant/reed matter throughout water
0066	SW020	23 May 2023 09:30AM	6.38	12,020	6.9	51.5	11.2	-
0066	SW020	05 Dec 2023 01:06AM	5.31	24,353	7.21	1.8	22.6	Foaming near rocks
0066	SW021	23 May 2023 09:30AM	7.93	606	7.81	76.9	12.7	-
0066	SW021	05 Dec 2023 02:27AM	3.1	1,864	7.28	-56.2	18.7	-
0066	SW022	23 May 2023 09:30AM	4.26	2,038	6.06	139.8	11.1	-
0066	SW022	06 Dec 2023 04:48AM	3.59	5,030	5.99	95.9	22	overgrown with reeds, stagnant water body
0066	SW023	23 May 2023 09:30AM	4.79	3,442	6.36	44	11.6	-
0066	SW023	04 Dec 2023 11:32PM	4.31	5,779	6.46	23.8	21.5	Organic matter in water body
0066	SW024	23 May 2023 09:30AM	7.51	1,038	7.15	80.7	12	-
0066	SW024	06 Dec 2023 01:59AM	4.82	1,279	6.57	25.4	16.9	Reeds and algae on surface

Table 4 - Surface Water Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	pH	Redox Potential (mV)	Temp (°C)	Sample Comments ¹
0066	SW027	23 May 2023 09:30AM	6.32	31,604	7.32	163.4	13.5	-
0066	SW027	04 Dec 2023 11:58PM	4.76	25,746	6.99	5.4	20.3	Sampled on outgoing/slack tide
0066	SW028	23 May 2023 09:30AM	7.46	12,851	6.92	86.7	12.2	-
0066	SW028	05 Dec 2023 04:23AM	4.74	12,630	6.98	94.3	24.3	streams running at low water level
0066	SW029	23 May 2023 09:30AM	7.81	1,301	7.91	215.7	14.3	-
0066	SW029	04 Dec 2023 04:17AM	4.42	433	7.53	51.7	25.2	open surface water drain
0066	SW030	23 May 2023 09:30AM	6.75	631	7.61	77.5	13.9	-
0066	SW057	23 May 2023 09:30AM	3	4,970	7.39	99.4	13.5	-
0066	SW057	05 Dec 2023 11:19PM	7.33	5,621	9.11	-186.6	19.5	Reeds and organic matter on surface of water
0066	SW071	23 May 2023 09:30AM	5.71	54,546	8.01	57.9	14.5	-
0066	SW071	04 Dec 2023 12:59AM	4.36	50,160	8.03	-15.2	21.8	Sampled at slack tide
0066	SW072	23 May 2023 09:30AM	8.55	53	6.91	108.7	12	-
0066	SW073	04 Dec 2023 12:15AM	1.83	383	6.82	60.9	18.9	overgrown with vegetation/reeds
0066	SW074	23 May 2023 09:30AM	4.64	726	6.82	42.7	13	-
0066	SW074	04 Dec 2023 12:04AM	5.51	457	6.81	77.3	21.5	area overgrown with vegetation, algae on water surface
0066	SW075	23 May 2023 09:30AM	6.16	198	7.3	82.6	11.7	-
0066	SW075	05 Dec 2023 03:46AM	6.73	412	7.28	-17.9	18.7	Plants and reeds in water
0066	SW076	23 May 2023 09:30AM	5.58	24,889	6.88	25.5	12.1	-
0066	SW076	05 Dec 2023 04:10AM	4.95	41,491	6.92	-3.9	26.5	-
0066	SW077	23 May 2023 09:30AM	7.92	561	6.64	109.8	12.1	-
0066	SW077	03 Dec 2023 11:27PM	4.34	593	6.1	-22	18.8	Algae throughout water
0066	SW078	23 May 2023 09:30AM	2.82	392	6.62	68.4	12.9	-
0066	SW078	04 Dec 2023 12:13AM	0.84	707	6.71	-46.9	19.7	Sampled on outgoing/slack tide
0066	SW001	06 May 2024 05:15AM	3.35	2,103	8.44	-43.3	17.7	sampled in outlet pit during slack tide
0066	SW003	09 May 2024 04:16AM	1.91	91,309	7.71	-33.9	16.9	surface water Sheen reforms after disturbance
0066	SW005	09 May 2024 05:32AM	1.65	764	6.93	-107.8	17.3	sampled at stormwater drain pits north of sw005
0066	SW007	09 May 2024 03:54AM	3.17	87,724	7.58	-44.6	15.6	Sheen reforms after disturbance
0066	SW009	08 May 2024 05:21AM	2.3	92,026	7.29	-33.8	17	sampled during slack tide
0066	SW010	08 May 2024 04:44AM	2.43	2,929	6.26	-53.9	14.1	organic sheen on water body surface, Orange brown color and turbidity on surface of water
0066	SW014	09 May 2024 01:43AM	2.34	7,758	7.15	68	15	Pond
0066	SW015	09 May 2024 01:33AM	5.99	7,523	7.28	63.1	15.5	-
0066	SW016	09 May 2024 01:06AM	5.19	2,008	7.04	91.4	15.7	Pond
0066	SW017	09 May 2024 01:15AM	3.92	43,152	6.92	123.7	14.8	Tidal creek at high tide
0066	SW018	09 May 2024 01:48AM	2.47	77,582	7.52	-47.5	16.1	-
0066	SW019	09 May 2024 01:26AM	3.96	634	6.6	-54.4	15.1	-
0066	SW020	07 May 2024 05:50AM	4.57	45,232	7.28	93	18.8	-
0066	SW022	08 May 2024 02:06AM	5.62	2,705	7.15	109.6	12	Sheen on top of water - appears organic

Table 4 - Surface Water Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	pH	Redox Potential (mV)	Temp (°C)	Sample Comments ¹
0066	SW023	09 May 2024 02:05AM	5.43	5,349	6.86	69.3	13.6	Organic sheen on surface
0066	SW024	09 May 2024 03:31AM	6.16	1,301	7.21	8.5	13.9	Algae and sheen on surface of water
0066	SW027	07 May 2024 06:09AM	6.49	24,856	7.12	71.5	15.1	Low falling tide at 4:00pm
0066	SW028	08 May 2024 04:21AM	5.12	39,815	7.63	92.9	16	Sampled slightly downstream of location due to access
0066	SW029	10 May 2024 12:56AM	3.09	178	6.64	-95.7	16.1	Dry 8.5, sampled after overnight rainfall on 10.5
0066	SW030	10 May 2024 01:01AM	3.4	163	6.82	-95.9	16.2	sampled after overnight rainfall on 10.5
0066	SW057	09 May 2024 01:55AM	5.06	8,040	7.2	73.3	15	Algae water
0066	SW071	09 May 2024 04:36AM	2.88	46,826	7.73	-38.8	16.4	-
0066	SW072	10 May 2024 12:27AM	2.58	155	6.72	-48.8	15.9	Dry 9.5, sampled after overnight rain on 10.5
0066	SW073	08 May 2024 02:32AM	3.2	344	6.41	-38.2	13.5	low water elevation sampled in pool of water with high turbidity. restricted access due to vegetation
0066	SW074	08 May 2024 02:08AM	2.74	1,068	6.56	-97.2	13.2	slight sheen on surface water body
0066	SW075	08 May 2024 04:33AM	5.8	697	7.1	-6.1	15	sample taken from drain culvert standing water
0066	SW076	08 May 2024 05:00AM	3.45	80,411	6.97	-25.7	18	Sheen on surface water body, Sheen brakes disperses and reforms after disturbance
0066	SW077	09 May 2024 01:43AM	1.91	1,825	6.53	-64.2	15.9	-
0066	SW078	09 May 2024 03:44AM	4.47	25,661	6.64	-43.8	17	when Disturbed Sheen quickly reforms, foaming present
0066	SW090	06 May 2024 04:51AM	3.44	14,682	7.34	-29.2	20.2	low water elevation. no apparent recent rainfall shallow water
0066	SW001	18 Nov 2024 01:15PM	6.04	45,576	7.66	69	18.2	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW002	18 Nov 2024 01:30PM	4.4	94,278	7.7	88.7	19.4	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW003	18 Nov 2024 10:10AM	3.96	88,069	7.75	211	16.8	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW004	18 Nov 2024 01:00PM	4.4	42,155	7.13	41.4	17.7	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW005	18 Nov 2024 01:45PM	5.31	45,043	7.61	74.8	18.1	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW006	18 Nov 2024 02:00PM	4.28	91,694	7.73	765	19	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW007	18 Nov 2024 02:15PM	4.76	79,993	7.52	88.2	18.7	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW009	18 Nov 2024 03:10PM	5.5	49,377	7.73	63.6	20.5	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW010	18 Nov 2024 03:20PM	5.89	38,059	6.71	-40.5	17.6	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW014	19 Nov 2024 10:20AM	6.94	8,539	7.84	140.6	17	Slight turbidity, light yellow, no O/S/F/FIm/SS, some algae
0066	SW015	19 Nov 2024 10:10AM	5.63	8,479	7.3	147.5	16.7	Slight turbidity, light yellow, no O/S/F/FIm/SS/Org
0066	SW016	18 Nov 2024 09:30AM	3.6	18	6.74	187.4	17.3	Slight turbidity, light yellow, no O/S/F/FIm/SS/Org
0066	SW017	19 Nov 2024 09:50AM	4.99	40,117	6.67	200.6	15.6	Slight turbidity, light yellow, no O/S/F/FIm/SS, some algae
0066	SW018	18 Nov 2024 03:00PM	4.87	48,823	7.61	53	21	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW019	18 Nov 2024 11:30AM	5.95	11	7.8	8.6	21.9	Light yellow, no O/S/F/FIm/SS/Org
0066	SW020	18 Nov 2024 03:05PM	4.4	70,078	7.68	68.9	19.3	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW022	19 Nov 2024 11:45AM	6.42	2,300	6.61	15.9	13.5	Slight turbidity, brackish water (brown), no O/S/F/FIm, some leaf litter and suspended particles
0066	SW023	19 Nov 2024 10:50AM	7.77	3,866	7.27	-4.5	15.7	Slight turbidity, light yellow, no O/S/F/FIm/SS/Org
0066	SW024	19 Nov 2024 11:20AM	5.19	1,144	6.92	66.6	14.5	Slight turbidity, light yellow, no O/S/F/FIm/SS/Org
0066	SW027	18 Nov 2024 12:00PM	4.98	39,135	7.23	114.3	18	Light yellow, no O/S/F/FIm/SS/Org
0066	SW028	18 Nov 2024 12:50PM	5.8	41,327	6.86	142.7	18.4	Clear, colourless, no O/S/F/FIm/SS/Org

Table 4 - Surface Water Parameters

Property ID	Surface Water ID	Sampled Date/Time	DO (mg/L)	EC (µS/cm)	pH	Redox Potential (mV)	Temp (°C)	Sample Comments ¹
0066	SW029	18 Nov 2024 12:30PM	7.35	1,020	7.7	138.1	16.1	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW030	18 Nov 2024 12:40PM	9.07	183	6.63	113.8	15.6	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW057	19 Nov 2024 10:35AM	6.56	4,500	7.61	123.8	17.6	Slight turbidity, light yellow, no O/S/F/FIm/SS/Org
0066	SW071	18 Nov 2024 10:30AM	4.71	91,302	7.81	168.3	17.8	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW073	19 Nov 2024 01:40PM	4.33	3,713	6.81	91.1	16.5	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW074	19 Nov 2024 01:20PM	1.75	1,094	6.82	82.6	17.5	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW075	18 Nov 2024 03:30PM	8.2	808	7.71	-33.1	17.6	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW076	18 Nov 2024 03:15PM	5.18	46,693	7.55	66.7	20.2	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW077	18 Nov 2024 02:45PM	3.36	20,788	6.17	6.6	18.5	Clear, colourless, no O/S/F/FIm, minor debris inclusions
0066	SW078	18 Nov 2024 02:30PM	2.6	27,556	6.82	42.3	19.7	Clear, colourless, no O/S/F/FIm/SS/Org
0066	SW090	19 Nov 2024 03:30PM	4.56	43,245	7.15	68.55	20.5	Slight turbidity, colourless, no O/S/F/FIm/SS/Org

O = odours

S = sheen

F = froth

FIm = film

SS = suspended solids

Org = organic matter

Table 5 December 2023 to November 2024 OMP Surface Water Primary Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids				
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0002	0.01	0.002	0.002	0.002	0.0004	0.0004	0.0002
NHMRC Australian Drinking Water Guidelines (2025)	1		0.03		0.008							0.2
ANZG 2026 Freshwater/Interim marine (99% species protection)					0.02							19
PFAS NEMP 2025 Recreational water quality guideline			2		2							10

Location Code	Date	Lab Report Number												
SW001	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW001	06 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW001	06 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW002	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW003	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW003	09 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW004	05 Dec 2023	EM2321752	0.04	0.06	0.49	0.02	0.39	-	<0.02	<0.1	<0.02	0.07	<0.02	0.06
SW004	18 Nov 2024	1162570	0.1	0.16	1.1	0.07	2.00	<0.01	<0.01	<0.05	0.02	0.15	0.04	0.14
SW005	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW005	09 May 2024	EM2407537	<0.02	<0.02	0.07	<0.02	0.10	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW005	06 Dec 2023	EM2321752	<0.02	<0.02	0.04	<0.02	0.30	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW006	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW007	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW007	04 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW007	09 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW009	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW009	05 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW009	08 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW010	18 Nov 2024	1162570	<0.01	<0.01	0.03	<0.01	0.07	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01
SW010	08 May 2024	EM2407537	<0.02	<0.02	0.06	<0.02	0.11	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01
SW010	05 Dec 2023	EM2321752	<0.02	<0.02	0.09	<0.02	0.26	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01
SW014	09 May 2024	EM2407537	0.56	0.34	2.98	0.14	3.72	-	<0.02	0.5	0.61	2.97	0.74	1.06
SW014	19 Nov 2024	1162570	0.51	0.5	3	0.1	3.8	0.03	<0.01	0.27	0.71	4.3	0.68	1.1
SW014	05 Dec 2023	EM2321752	0.4	0.38	2.5	0.16	7.56	-	<0.02	0.2	0.5	2.7	0.49	0.96
SW015	05 Dec 2023	EM2321752	0.18	0.2	1.35	0.08	2.44	-	<0.02	<0.1	0.2	1.02	0.2	0.58
SW015	19 Nov 2024	1162570	0.34	0.31	1.9	0.13	1.4	<0.01	<0.01	0.13	0.34	2.2	0.36	0.82
SW015	09 May 2024	EM2407537	0.42	0.2	1.88	0.09	1.98	-	<0.02	0.3	0.32	1.56	0.4	0.9
SW016	09 May 2024	EM2407537	0.28	0.2	1.74	0.11	2.71	-	<0.02	0.2	0.2	0.91	0.24	0.85
SW016	05 Dec 2023	EM2321752	0.19	0.19	1.41	0.15	3.28	-	<0.02	<0.1	0.13	0.76	0.21	0.75
SW016	19 Nov 2024	1162570	0.23	0.23	1.5	0.18	2	0.02	<0.01	0.07	0.15	1.1	0.2	0.77
SW017	19 Nov 2024	1162570	0.02	0.01	0.04	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01
SW017	06 Dec 2023	EM2321752	<0.02	<0.02	0.05	<0.02	0.06	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01
SW017	09 May 2024	EM2407537	<0.02	<0.02	0.06	<0.02	0.06	-	<0.02	<0.1	<0.02	0.06	<0.02	0.02
SW018	04 Dec 2023	EM2321752	<0.02	<0.02	0.07	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW018	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW018	09 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW019	04 Dec 2023	EM2321752	<0.02	<0.02	0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW019	18 Nov 2024	1162570	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW019	09 May 2024	EM2407537	<0.02	<0.02	0.03	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW020	05 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW020	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW020	07 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW021	05 Dec 2023	EM2321752	<0.02	<0.02	0.1	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW022	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.02	<0.01	<0.01	<0.01
SW022	06 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW022	08 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW023	05 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01

Table 5 December 2023 to November 2024 OMP Surface Water Primary Analytical Results Table

	PFAS - Perfluoroalkyl Carboxylic Acids (continued)						PFAS - (n:2) Fluorotelomer Sulfonic Acids			
	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.002	0.002	0.005	0.01	0.01	0.001	0.0004	0.0004	0.002
NHMRC Australian Drinking Water Guidelines (2025)										
ANZG 2026 Freshwater/Interim marine (99% species protection)										
PFAS NEMP 2025 Recreational water quality guideline										

Location Code	Date	Lab Report Number										
SW001	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW001	06 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW001	06 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW002	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW003	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW003	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW004	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW004	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW005	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW005	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW005	06 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW006	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW007	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW007	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW007	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW009	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW009	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW009	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW010	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW010	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW010	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW014	09 May 2024	EM2407537	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW014	19 Nov 2024	1162570	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW014	05 Dec 2023	EM2321752	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW015	05 Dec 2023	EM2321752	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW015	19 Nov 2024	1162570	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW015	09 May 2024	EM2407537	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW016	09 May 2024	EM2407537	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW016	05 Dec 2023	EM2321752	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW016	19 Nov 2024	1162570	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW017	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW017	06 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW017	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW018	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW018	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW018	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW019	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW019	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW019	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW020	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW020	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW020	07 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW021	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW022	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW022	06 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW022	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW023	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05

Table 5 December 2023 to November 2024 OMP Surface Water Primary Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.01	0.05	0.002	0.05	0.05	0.002	0.05	0.0002	0.01	0.0002
NHMRC Australian Drinking Water Guidelines (2025)								0.03		
ANZG 2026 Freshwater/Interim marine (99% species protection)										
PFAS NEMP 2025 Recreational water quality guideline								2		

Location Code	Date	Lab Report Number										
SW001	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW001	06 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW001	06 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW002	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW003	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW003	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW004	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.88	1.05	1.13
SW004	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.10	3.55	3.80
SW005	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
SW005	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.17	0.17
SW005	06 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.34	0.34
SW006	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	0.03	<0.05	0.12
SW007	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW007	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW009	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW010	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.11	0.11
SW010	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.21	0.21
SW010	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	0.38	0.38
SW014	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.7	13.1	13.9
SW014	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.8	14.37	15.26
SW014	05 Dec 2023	EM2321752	0.02	<0.05	0.02	<0.05	<0.05	<0.02	<0.05	10.1	15.3	16
SW015	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.79	5.97	6.28
SW015	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.3	7.49	8.1
SW015	09 May 2024	EM2407537	<0.02	<0.05	0.03	<0.05	<0.05	<0.02	<0.05	3.86	7.76	8.37
SW016	09 May 2024	EM2407537	<0.02	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	4.45	7.13	7.66
SW016	05 Dec 2023	EM2321752	0.02	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	4.69	6.73	7.27
SW016	19 Nov 2024	1162570	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	3.5	6.02	6.78
SW017	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.15	0.16
SW017	06 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.16	0.16
SW017	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.2	0.2
SW018	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.1	0.1
SW018	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW018	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW019	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04
SW019	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
SW019	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW020	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW020	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW020	07 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW021	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW022	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW022	06 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02

Table 5 December 2023 to November 2024 OMP Surface Water Primary Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids				
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfo nic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0002	0.01	0.002	0.002	0.002	0.0004	0.0004	0.0002
NHMRC Australian Drinking Water Guidelines (2025)	1		0.03		0.008							0.2
ANZG 2026 Freshwater/Interim marine (99% species protection)					0.02							19
PFAS NEMP 2025 Recreational water quality guideline			2		2							10

Location Code	Date	Lab Report Number												
SW023	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW023	09 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW024	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW024	06 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW024	09 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW027	07 May 2024	EM2407537	<0.02	<0.02	0.04	<0.02	0.1	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW027	05 Dec 2023	EM2321752	<0.02	<0.02	0.03	<0.02	0.13	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW027	18 Nov 2024	1162570	0.02	0.02	0.21	0.01	0.21	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01
SW028	08 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW028	18 Nov 2024	1162570	0.01	0.02	0.15	<0.01	0.21	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01
SW028	05 Dec 2023	EM2321752	<0.02	<0.02	0.04	<0.02	0.33	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW029	18 Nov 2024	1162570	<0.01	<0.01	0.01	<0.01	0.04	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01
SW029	10 May 2024	EM2407537	<0.02	<0.02	0.05	<0.02	0.16	-	<0.02	<0.1	0.05	0.04	<0.02	0.02
SW029	04 Dec 2023	EM2321752	0.03	<0.02	0.12	<0.02	0.32	-	<0.02	<0.1	0.13	0.1	0.05	0.06
SW030	18 Nov 2024	1162570	<0.01	<0.01	0.02	<0.01	0.07	<0.01	<0.01	<0.05	0.03	0.02	<0.01	<0.01
SW030	10 May 2024	EM2407537	<0.02	<0.02	0.06	<0.02	0.21	-	<0.02	<0.1	0.07	0.06	<0.02	0.02
SW057	09 May 2024	EM2407537	0.5	0.53	3.09	0.15	3.65	-	<0.02	0.4	0.69	3.67	0.74	1.03
SW057	06 Dec 2023	EM2321752	0.39	0.39	2.33	0.14	2.9	-	<0.02	0.2	0.42	2.32	0.55	0.79
SW057	19 Nov 2024	1162570	0.57	0.51	3.1	0.11	2.7	0.02	<0.01	0.28	0.73	4.7	0.7	1.1
SW071	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW071	04 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW071	09 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW072	10 May 2024	EM2407537	<0.02	<0.02	0.05	<0.02	0.2	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW073	04 Dec 2023	EM2321752	<0.02	<0.02	0.02	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW073	19 Nov 2024	1162570	<0.01	<0.01	0.04	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01
SW073	08 May 2024	EM2407537	<0.02	<0.02	0.04	<0.02	0.09	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW074	04 Dec 2023	EM2321752	<0.02	<0.02	0.09	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW074	08 May 2024	EM2407537	<0.02	<0.02	0.1	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW074	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW075	08 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW075	18 Nov 2024	1162570	<0.01	<0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW075	05 Dec 2023	EM2321752	<0.02	<0.02	0.03	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW076	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW076	05 Dec 2023	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW076	08 May 2024	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW077	09 May 2024	EM2407537	<0.02	<0.02	0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW077	18 Nov 2024	1162570	0.02	0.01	0.06	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01
SW077	04 Dec 2023	EM2321752	0.02	<0.02	0.08	<0.02	0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01
SW078	18 Nov 2024	1162570	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01
SW078	04 Dec 2023	EM2321752	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW078	09 May 2024	EM2407537	<0.02	<0.02	0.04	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01
SW090	19 Nov 2024	1162570	<0.01	<0.01	0.02	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01
SW090	06 May 2024	EM2407537	<0.02	<0.02	0.07	<0.02	0.08	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01

Table 5 December 2023 to November 2024 OMP Surface Water Primary Analytical Results Table

	PFAS - Perfluoroalkyl Carboxylic Acids (continued)						PFAS - (n:2) Fluorotelomer Sulfonic Acids			
	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.002	0.002	0.005	0.01	0.01	0.001	0.0004	0.0004	0.002
NHMRC Australian Drinking Water Guidelines (2025)										
ANZG 2026 Freshwater/Interim marine (99% species protection)										
PFAS NEMP 2025 Recreational water quality guideline										

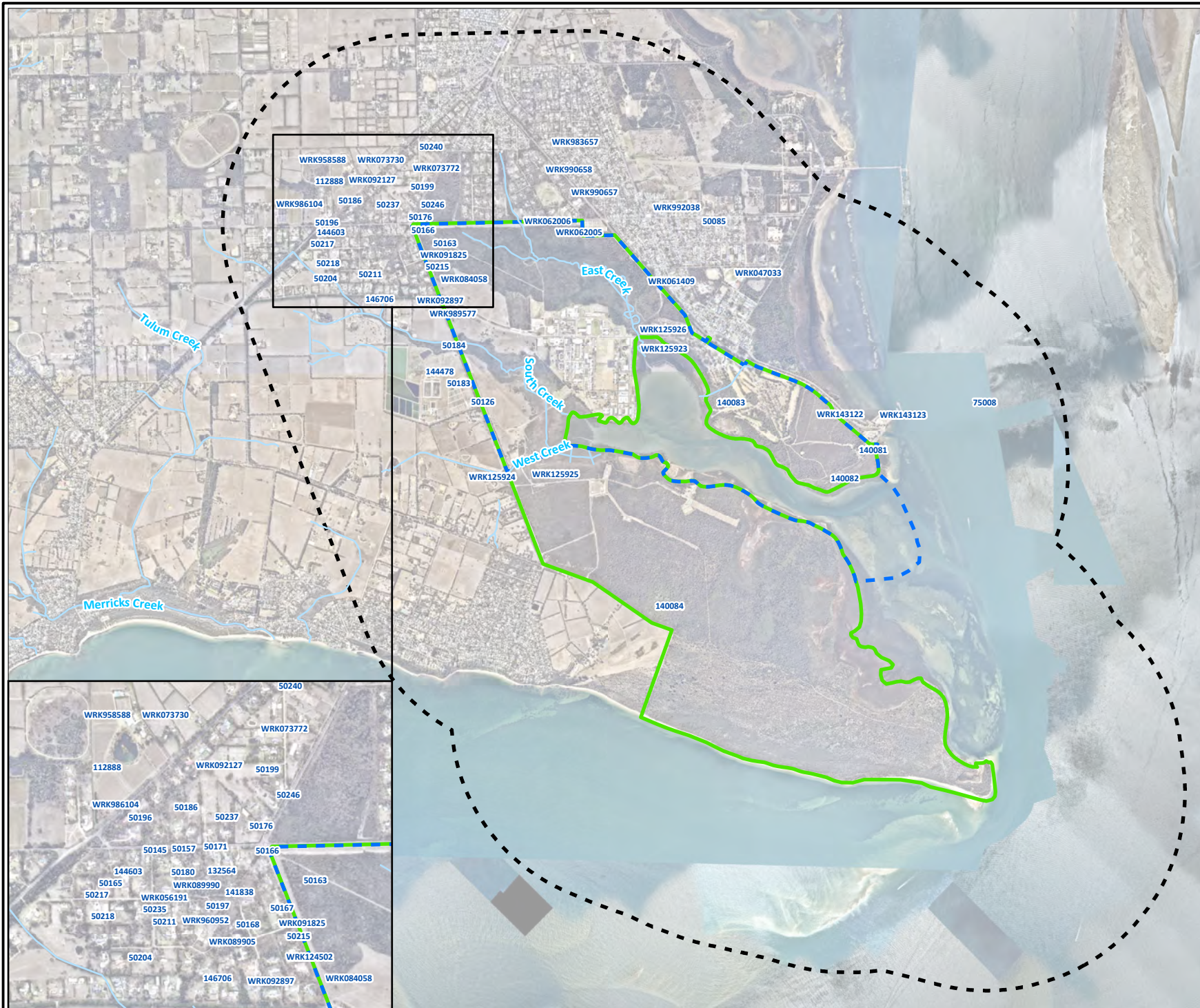
Location Code	Date	Lab Report Number										
SW023	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW023	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW024	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW024	06 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW024	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW027	07 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW027	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW027	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW028	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW028	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW028	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW029	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW029	10 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW029	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.24	0.06	<0.05
SW030	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW030	10 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05
SW057	09 May 2024	EM2407537	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW057	06 Dec 2023	EM2321752	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW057	19 Nov 2024	1162570	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW071	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW071	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW071	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW072	10 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW073	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW073	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW073	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW074	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW074	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW074	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW075	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW075	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW075	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW076	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW076	05 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW076	08 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW077	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW077	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW077	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW078	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW078	04 Dec 2023	EM2321752	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW078	09 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05
SW090	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01
SW090	06 May 2024	EM2407537	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05

Table 5 December 2023 to November 2024 OMP Surface Water Primary Analytical Results Table

	PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.01	0.05	0.002	0.05	0.05	0.002	0.05	0.0002	0.01	0.0002
NHMRC Australian Drinking Water Guidelines (2025)								0.03		
ANZG 2026 Freshwater/Interim marine (99% species protection)										
PFAS NEMP 2025 Recreational water quality guideline								2		

Location Code	Date	Lab Report Number										
SW023	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW024	06 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW027	07 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.14	0.14
SW027	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW027	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.42	0.46	0.49
SW028	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW028	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.36	0.38	0.4
SW028	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.37	0.37	0.37
SW029	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.1
SW029	10 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.32	0.32
SW029	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44	1.11	1.11
SW030	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.14	0.14
SW030	10 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	0.48	0.48
SW057	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.48	7.34	8.16
SW057	06 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.23	9.9	10.5
SW057	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5.8	13.88	14.77
SW071	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW071	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW071	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW072	10 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.25	0.25	0.25
SW073	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW073	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.14	0.14
SW073	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.13	0.13
SW074	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.13	0.13
SW074	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.14	0.14
SW074	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW075	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW075	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW075	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
SW076	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW076	05 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW076	08 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW077	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW077	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	0.08	0.12	0.26
SW077	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.14	0.14
SW078	18 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.1
SW078	04 Dec 2023	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW078	09 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW090	19 Nov 2024	1162570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.08	<0.1
SW090	06 May 2024	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.15	0.15

Appendix A Registered bore search



Legend

- Site Area
- Management Area / Investigation Area
- 2km Buffer from Cerberus Site Boundary
- Watercourse
- Registered Groundwater Bores within 2km of Site

Job No: 66022

Client: Department of Defence

Version: Rev 0	Date: 10-Aug-2026
Drawn By: [Redacted]	Checked By: [Redacted]

Scale 1:55,000

Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

REGISTERED GROUNDWATER BORES WITHIN 2KM OF SITE

Bore ID	Easting (MGA)	Northing (MGA)	Map zone	Constructed date	Constructed depth (m)	Registered Use	On-Base/ Off-Base
112888	338883.2	5753694.1	55	5/02/1992	19.2	Domestic and Stock	Off-base
132564	339433.2	5753284.1	55	1/12/1997	21	Domestic	Off-base
140081	344413.2	5750884	55	10/06/1998	5	Groundwater Investigation	Onbase
140082	344113.2	5750584	55	10/06/1998	7	Groundwater Investigation	Onbase
140083	342913.2	5751384.1	55	10/06/1998	9.8	Groundwater Investigation	Onbase
140084	342263.2	5749234	55	10/06/1998	4.2	Groundwater Investigation	Onbase
141838	339613.2	5753084.1	55	20/11/1998	21.3	Domestic	Off-base
144478	339839.2	5751707.1	55	12/05/2001	7.5	Groundwater Investigation	Off-base
144603	339113.2	5753184.1	55	5/03/2001	20	Domestic	Off-base
146706	339413.2	5752684.1	55	23/10/2001	22.5	Domestic	Off-base
50085	342759.2	5753295.1	55	31/12/1961	0	Unknown	Off-base
50126	340319.2	5751387.1	55	26/11/1974	42.67	Domestic and Stock	Off-base
50145	339208.2	5753288.1	55	7/04/1979	22	Domestic	Off-base
50157	339323.2	5753294.1	55	28/05/1982	22.45	Domestic and Stock	Off-base
50163	339893.2	5753154.1	55	11/02/1983	21.3	Domestic	Onbase
50165	339079.2	5753139.1	55	17/03/1983	20.64	Domestic	Off-base
50166	339663.2	5753294.1	55	9/03/1983	20.73	Domestic	Off-base
50167	339733.2	5753104.1	55	4/03/1983	24.7	Domestic	Off-base
50168	339737.2	5752941.1	55	27/10/1982	20.33	Domestic and Stock	Off-base
50171	339583.2	5753314.1	55	29/10/1982	21.65	Domestic	Off-base
50176	339633.2	5753414.1	55	26/10/1983	17.52	Domestic and Stock	Off-base
50180	339413.2	5753284.1	55	6/02/1984	21.5	Domestic	Off-base
50183	340063.2	5751584.1	55	19/10/1984	28	Domestic	Off-base
50184	340013.2	5751984.1	55	12/11/1984	26.5	Domestic	Off-base
50186	339273.2	5753504.1	55	12/12/1984	21.6	Domestic	Off-base
50196	339053.2	5753454.1	55	4/06/1985	24	Domestic	Off-base
50197	339413.2	5753074.1	55	28/03/1985	20.4	Domestic	Off-base
50199	339663.2	5753684.1	55	4/12/1985	21	Domestic	Off-base
50204	339053.2	5752784.1	55	5/03/1998	27.4	Domestic and Stock	Off-base
50211	339253.2	5752944.1	55	6/03/1985	27.4	Domestic	Off-base
50215	339813.2	5752884.1	55	18/11/1986	28.6	Domestic	Off-base
50217	339013.2	5753084.1	55	7/01/1987	53.3	Domestic	Off-base
50218	339053.2	5753034.1	55	28/12/1986	19.8	Domestic	Off-base
50235	339123.2	5753014.1	55	9/05/1990	21.3	Domestic	Off-base
50237	339553.2	5753444.1	55	19/04/1990	19.8	Domestic	Off-base
50240	339773.2	5754084.1	55	16/07/1988	24.6	Domestic	Off-base
50246	339763.2	5753564.1	55	25/03/1985	16.1	Domestic and Stock	Off-base
75008	345613.2	5751384	55	5/01/1988	60.9	Domestic	Off-base
WRK047033	343101	5752752	55	29/02/2008	19.8	Irrigation	Off-base
WRK056191	339110	5753151	55	15/04/2010	30	Domestic and Stock	Off-base
WRK061409	342185	5752664	55	23/12/2011	24	Investigation	Onbase
WRK062005	341517	5753389	55	28/04/2011	12	Observation	Onbase
WRK062006	341517	5753395	55	28/04/2011	12	Observation	Onbase
WRK073730	339119	5753947	55	1/01/1990	20	Irrigation	Off-base
WRK073772	339689	5753882	55	19/06/2013	20.5	Domestic and Stock	Off-base
WRK084058	339998	5752683	55	14/10/2015	31.5	Domestic and Stock	Onbase
WRK089905	339635	5752847	55	4/12/2015	26.5	Domestic and Stock	Off-base
WRK089990	339256	5753173	55	20/11/2015	21.3	Domestic and Stock	Off-base
WRK091825	339774	5752947	55	26/02/2016	28.6	Domestic and Stock	Off-base
WRK092127	339377	5753705	55	6/03/2016	20.2	Domestic and Stock	Off-base
WRK092897	339764	5752658	55	4/05/2016	29	Domestic and Stock	Off-base
WRK124502	339810	5752785	55	14/01/2021	28.8	Domestic and stock	Off-base
WRK125923	342085	5752062	55	14/04/2021	4	Investigation	Onbase
WRK125924	340913	5750781	55	13/04/2021	5	Investigation	Onbase
WRK125925	340936	5750721	55	13/04/2021	9	Investigation	Onbase
WRK125926	342097	5752152	55	14/04/2021	4	Investigation	Onbase
WRK143122	344579	5751260	55	13/03/2024	4.5	Observation	Off-base
WRK143123	344629	5751250	55	7/03/2024	4.5	Observation	Off-base
WRK958588	339119	5753947	55	1/01/1992	20	Unknown	Off-base
WRK960952	339404.2	5752951.1	55	17/02/2003	20.9	Domestic and Stock	Off-base
WRK983657	341169	5754129	55		150	Unknown	Off-base
WRK986104	338892	5753507	55		150	Unknown	Off-base
WRK989577	339880	5752320	55		150	Unknown	Off-base
WRK990657	341373	5753600	55		25	Unknown	Off-base
WRK990658	341079	5753932	55		25	Unknown	Off-base
WRK992038	342240	5753439	55		25	Unknown	Off-base

Appendix B JBS&G SAQP (JBS&G 2024)



HMAS Cerberus - PFAS OMP Sampling and Analysis Quality Plan (SAQP)

Department of Defence

Report

JBS&G | 66022 | 163,251

20 November 2024





We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.

Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte



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Abbreviations

Term	Definition
AFFF	Aqueous Film Forming Foam
AS/NZS	Australian/New Zealand Standards
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended in 2013)
ASRIS	Australian Soil Resources Information System
ASS	Acid Sulfate Soil
AST	Aboveground Storage Tank
COC	Chain of Custody
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
DEECA	Department of Energy, Environment and Climate Action
DO	Dissolved Oxygen
DQI	Data Quality Indicator
DQO	Data Quality Objective
DSI	Detailed Site Investigation
EC	Electrical Conductivity
EDMS	Environmental Data Management Software
EPA	Environment Protection Authority Victoria
FTG	Fire Training Ground
Ha	Hectares
HEPA	Heads of Environmental Protection Authority's Australia and New Zealand
HSEMP	Health, Safety and Environmental Management
IBC	Intermediate Bulk Container
IWRG	Industrial Waste Resources Guidelines
IA	Investigation Area
JBS&G	JBS&G Australia Pty Ltd
LCS	Laboratory Control Sample
m AHD	metres Australian Height Datum
m BGL	Metres below ground level
NATA	National Association of Testing Authorities
NEMP	Heads of EPAs Australia and New Zealand (HEPA), PFAS National Environmental Management Plan – Version 2; January 2020
NEPC	National Environment Protection Council
NHMRC	National Health and Medical Research Council
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation reduction potential
PFAS	Per and Polyfluoroalkyl Substances
PMAP	PFAS Management Area Plan
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid

Term	Definition
PFOS	Perfluorooctanesulfonic acid
pH	Potential of Hydrogen
PMAP	PFAS Area Management Plan
QA/QC	Quality Assurance / Quality Control
RPD	Relative Percent Difference
SAQP	Sampling and Analysis Quality Plan
STP	Sewage Treatment Plant
SWMS	Safe Work Method Statement
SWL	Standing Water Level
TDS	Total Dissolved Solids
UCI	Upper Confidence Interval
USEPA	United States Environment Protection Authority
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VVG	Visualising Victoria's Groundwater
WA DER	Western Australia Department of Environmental Regulation
WTP	Water Treatment Plant

1. Introduction

JBS&G Australia (JBS&G) have been engaged by the Department of Defence (Defence) to provide this Sampling and Analysis Quality Plan (SAQP) for the Ongoing Monitoring Plan (OMP) component of work at HMAS Cerberus, Victoria. These works are part of a National Defence Program to understand the nature and extent of per- and polyfluoroalkyl substances (PFAS) contamination resulting from the historical use of Aqueous Film Forming Foam (AFFF) on and adjacent to identified Defence properties across Australia.

This SAQP relates to the monitoring of surface water and groundwater monitoring locations at HMAS Cerberus and its surrounding areas, collectively referred to as the Management Area, as detailed in **Figure 1, Appendix A**. For the purposes of this report:

- “Site” refers to HMAS Cerberus, Victoria, and includes the channel and intertidal zone within Hanns Inlet, as shown within the yellow outlined in **Figure 1, Appendix A**.
- The “Management Area” consists of Hanns Inlet and the northern portion of the Site, aligning with the Investigation Area (IA) for the intrusive component of the Detailed Site Investigation (DSI) works, shown as the “Investigation/Management area” within the blue outline in **Figure 1, Appendix A**. The southern portion of the Site was excluded from the DSI due to the presence of unexploded ordnance (UXO). However, this exclusion did not compromise the completeness of the DSI, as no known or suspected AFFF sources or pathways exist within that section (Aurecon, 2018c).

The Site is located on Commonwealth Land and is regulated under applicable Commonwealth environmental legislation. The OMP outlines the rationale and scope for the monitoring of the concentrations and extent of PFAS in both groundwater and surface water within and around the Site. Findings from the monitoring over the two-year implementation period will be used to assess any changes to the nature and extent of PFAS impact where there is an identified potentially elevated risk to a receptor or a potential future risk to a receptor.

1.1 Scope and Objectives

The objectives of this SAQP are to outline the monitoring locations, sampling methodologies and quality control/quality assurance (QA/QC) measures for the monitoring of PFAS concentrations and their extent in surface water and groundwater within and around the Site. These findings will support risk management decisions by Defence and the Victorian Government to protect human health and the environment.

The scope of the monitoring specified in the OMP is to:

- 1) Evaluate the nature and extent (spatial and temporal) of PFAS in groundwater and surface water pathways associated with site sources of derived from AFFF use on the Site.
- 2) Monitor the migration of PFAS through groundwater and surface water from the Site.
- 3) Confirm the current understanding of risks associated with PFAS contamination.
- 4) Provide supporting data to evaluate the effectiveness of management actions, where relevant.

1.2 Previous Reports

The following key reports related the HMAS Cerberus PFAS Investigation have been used as a basis to develop the OMP:

- GHD (2016), Defence per- and poly-fluoroalkyl substances (PFAS) Environmental Management Preliminary Sampling Program Final Report, September 2016;
- Golder Associates (2017), Further Groundwater Assessment RAN SSSS, May 2017;

- Aurecon Australasia Pty Ltd (2018c), Investigation of per-and poly-fluoroalkyl substances at HMAS Cerberus, Detailed Site Investigation, prepared for Department of Defence, September 2018;
- Aurecon Australasia Pty Ltd (2018a), HMAS Cerberus PFAS Management Area Plan (PMAP), October 2018;
- Aurecon Australasia Pty Ltd (Aurecon 2018b), reference: 256337, HMAS Cerberus PFAS – Ongoing Monitoring Plan, October 2018; and
- Stantec (2024), PFAS OMP Sampling and Analysis Quality Plan (SAQP), prepared for Department of Defence, May 2024.

1.3 Responsible Parties

Responsible parties and responsibilities associated with the implementation of the OMP are detailed in **Table 1.1**.

Table 1.1: Responsible Parties

Role	Responsibilities
Department of Defence – PFAS Investigation and Management Branch	• Implement the OMP. • Engage suitably qualified environmental consultants/contractors to carry out the works specified in the OMP.
HMAS Cerberus – Base Support Manager and Environment and Sustainability Manager	• Review and approve all necessary permits required for implementation of the works outlined in the OMP.
Environmental Consultant	• Obtain necessary permits from HMAS Cerberus to implement the works outlined in the OMP. • Liaise with state regulators (e.g. Local Councils or Department of Energy, Environment and Climate Action (DEECA)) to arrange sampling of off-Site waterways, as required. • Undertake the monitoring activities outlined in this SAQP. • Produce a factual report summarising data and findings of each monitoring event, ensuring alignment with the SAQP requirements. • Develop an Ongoing Monitoring Report (OMR), including recommendations for potential changes in sampling locations and frequency for future OMP revisions. • Upload analytical data from each monitoring event to the relevant Defence ESdat database. • Implement and review recommendations from the PMAP. • Undertake periodic review of the OMP.
Department of Defence (lead) and Environmental Consultant	• Liaise with private property owners to arrange private property access to conduct sampling, if necessary.

1.4 Relevant Guidelines

This SAQP has been prepared in general accordance with the current ‘industry standards’ for a site investigation for the scope and objectives identified in this report. These standards are set out in:

- Australian Standard (2005), AS 4482.1-2005, Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soils, Part 1 - Non-volatile and Semi-volatile Compounds (withdrawn as pending revision, referred to for ‘state of knowledge’);
- 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;

- Australian/New Zealand Standard AS/NZS 5667.6:1998 Water Quality – Sampling, Part 6: Guidance on sampling rivers and streams;
- Department of Defence (2019), Pollution Prevention Management Manual – Annex 1L: Pollution Prevention Guidance – Routine Water Quality Monitoring;
- Department of Defence (2021b), Contamination Management Manual (DCMM), Annex L – Data Management, August 2019, Amended June 2021;
- Department of Defence, Department of Energy (2018), Quality System Manual Schedule B15 USEPA DQO Process;
- Environment Protection Authority (EPA) Victoria (2022), Groundwater Sampling Guidelines, Publication 669.1, February 2022;
- EPA Victoria (2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication 701, June 2009;
- Heads of Environmental Protection Authority's Australia and New Zealand (HEPA) (2020), PFAS National Environmental Management Plan (NEMP) Version 2.0, January 2020;
- National Environment Protection Council (NEPC) (2013), National Environmental Protection (Assessment of Site Contamination) Measure (1999, as amended 2013) (ASC NEPM);
- National Health and Medical Research Council (NHMRC) (2019), Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water, August 2019;
- United States Environment Protection Authority (USEPA) (2006), Guidance for the Data Quality Objectives Process (EPA QA/G-4);
- USEPA (2002), Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8); and
- Victorian Government Gazette (2023). Designation of the Authority Under Regulation 86(1) of the Environment Protection Regulations 2021, Classification of PFAS-impacted Soil. Dated 25 May 2023.

2. Site Setting

2.1 Site Description

HMAS Cerberus is located approximately 70 kilometres south of Melbourne and covers an area of 1,517 hectares (Ha), operating as a Royal Australian Navy Base since the 1920s. The Site is situated east of Stony Point Road near the township of Stony Point.

The majority of the buildings, infrastructure and support services are concentrated in the northern to eastern portion of the Site and include:

- Various accommodation blocks;
- Buildings and facilities for administration, training, recreation, support services, and firefighting located in the central portion of the Site; and
- Golf club situated in the northeastern portion of the Site.

2.1.1 Management Area Description

The OMP includes all groundwater and surface water monitoring locations on the Site, collectively referred to as the Management Area (Aurecon 2018a). In addition to the primary Site operational area, the Management Area includes the Former Sewage Treatment Plant (STP) to the southwest and groundwater wells positioned along the northern and western boundaries, up-gradient from the main operational area.

The only monitoring location within the Management Area that lies outside the Site is a surface water sample location at the Dock (SW071), which extends into Hanns Inlet. The boundaries of the Management Area are presented in **Figure 2, Appendix A**.

The Management Area aligns with the IA for the intrusive component of the DSI works (Aurecon 2018c). The IA encompasses the land within the cadastral boundary of the Site, excluding the southern portion, as well as the channel and adjacent intertidal zone within Hanns Inlet. The southern portion of the Site was excluded from the DSI works due to the presence of UXO. However, this exclusion did not compromise the completeness of the DSI, as there are no known or suspected AFFF sources or pathways in that area of the Site (Aurecon 2018c).

2.1.2 Site Definition and Planning

A detailed description of the Site is provided in Aurecon's OMP Report (Aurecon 2018b). The Site location is presented on **Figure 1, Appendix A** and key identification details are presented in **Table 2.1**.

Table 2.1: Site Identification Details

Details	Description
Site Address	HMAS Cerberus, VIC 3920
Land Description	HMAS Cerberus
Owner	Department of Defence
Title Details	Up to 45 individual Certificates of Title exist for the Site
Planning Zone/ Land Use	Commonwealth Land (CA)
Local Government Authority (LGA)	Mornington Peninsula Shire

Source: (Aurecon 2018b)

2.1.3 Surrounding Land Uses and Zoning

All land surrounding the Site is zoned 'Commonwealth Land (CA)' in the Shire of Mornington Peninsula municipality (Aurecon 2018b). The surrounding land uses are summarised in **Table 2.2**. It is envisaged that future land uses in the Management Area will remain relatively consistent.

Table 2.2: Surrounding Land Uses

Direction	Land Use
North	Natural bushland, low density residential.
East	Residential properties (Stony Point), commercial properties, Crib Point primary school.
West	Southeast Water Somers Treatment Plant, commercial and residential properties.
South	Hanns Inlet then eventually Western Port Bay.

Source: Google Maps, 2024

2.1.4 Environmental Setting

Key details defining the Site as presented in the OMP (Department of Defence, 2018) are summarised in the following **Table 2.3**.

Table 2.3: Key Site Details

Setting	Description
Regional Meteorology	According to the Bureau of Meteorology ¹ , the highest average monthly rainfall occurs in June (73.3 mm), with an annual average of 711.4 mm. The driest period is from January to March, with an average of 39.8 mm. Maximum temperatures range from 13.7°C in winter to 24.9 °C in summer.
Topography & Bathymetry	The Site is located within a valley, sloping southeast towards Hanns Inlet and the North Arm of Western Port Bay. Elevation varies between 50 metres Australian Height Datum (m AHD) to 90 m AHD at the highest points, within the main operational area ranging from sea level to 10 m AHD. Hanns Inlet is tidally influenced, with water depths up to 2 m during high tide. In the Site marina's access channel, depths vary between 2 m and 4 m.
Geology	Regional Geology The Site is underlain by alluvial deposits (silts and clays), followed by Tertiary Brighton Group (sandy clays) and Yallock Formation (limestone layers) (Geological Survey of Victoria 1967). Site Specific Geology Previous investigations encountered firm to stiff orange brown clay (approximately 6-7 metres below ground level (m BGL)), followed by sandy clays to clayey sands up to 12 m BGL. These soils reflect the fluvial environment of the Brighton Group, with localised channel sands within the dominant clay soils (Aurecon 2018c). In the tidal zone, including mangrove swamps and salt marshes, up to 2 m of soft silts and clays were observed (Aurecon 2018c).
Acid Sulphate Soil	According to the Australian Soil Resources Information System (ASRIS) mapping ² , there is an extremely low probability of encountering Acid Sulfate Soil (ASS) on land. However, wetland soils near water bodies present a potential risk of encountering ASS.
Hydrology	The Site lies within a valley, sloping towards Hanns Inlet and the North Arm of Westernport Bay. Surface water flows onto the Site through drains along the northern and western boundaries, which are upgradient of the Site. Redevelopment works within the Site include capping and replacing stormwater drains, which may serve as a secondary PFAS source through impacted stormwater flow. Surface water discharges through two tidal creeks (South Creek and East Creek) into Hanns Inlet, either directly or via the stormwater system.
Hydrogeology	The hydrogeology of the Site consists predominantly of alluvial soils (silts and clays) with shallow aquifers (< 20 m depth) recharged by local rainfall. Groundwater characteristics include: • Alluvial deposits in the southern and eastern areas (fire training grounds). • A semi-confined Brighton group aquifer at depths of between 1 m BGL and 20 m BGL. • According to the Visualising Victoria's Groundwater (VVG) website the groundwater salinity levels range from 1,000 mg/L and 3,500 mg/L total dissolved solids (TDS) (Segment B) with electrical conductivity (EC) of the groundwater between 1,000 µS/cm and 30,000 µS/cm, indicating a mix of fresh (potable) to saline groundwater. • Seawater intrusion may occur near tidal channels along Hanns Inlet, mixing with shallow groundwater and resulting in brackish water unsuitable for potable use. • Depth to groundwater is typically between 10 m BGL and 20 m BGL. • Groundwater flow direction is Southeast, towards the inlet and bay, with local flow towards the tidal creeks. • Groundwater Use – A review of groundwater databases identified seventy (70) groundwater bores within approximately 1 km of the Site³. The seven (70) groundwater bores are

Setting	Description
	registered for domestic, domestic and stock, irrigation, investigation, observation and unknown uses. Groundwater Use – A review of groundwater databases identified 109 groundwater bores within approximately 2 km of the Site³. The 109 groundwater bores are registered for domestic, domestic and stock, irrigation, investigation, observation and unknown uses.
Groundwater	It is noted that groundwater may also be accessed by unregistered bores not listed in public databases. The receiving surface water body for groundwater discharge is the Hanns Inlet. Water is also understood to discharge through evapotranspiration and local drainage features.

1. Bureau of Meteorology http://www.bom.gov.au/climate/averages/tables/cw_086361.shtml, last accessed on 7 November 2024.

2. Australian Soil Resource Information System <http://www.asris.csiro.au/mapping/viewer.htm>, last accessed on 8 April 2024.

3. Visualising Victoria's Groundwater https://www.vvg.org.au/vvg_map.php?agreement=Agree+and+Continue#, last accessed on 8 November 2024.

3. Conceptual Site Model

The Conceptual Site Model (CSM) for the Site is provided in Appendix C of the PMAP (Aurecon 2018a). The CSM identifies major and minor sources, migration pathways, exposure routes, and current and future receptors.

The CSM is informed by several PFAS investigations, including:

- Aurecon Australasia Pty Ltd (2018c), Investigation of per- and poly-fluoroalkyl substances at HMAS Cerberus, Detailed Site Investigation, prepared for Department of Defence, September 2018;
- GHD (2016), Defence per- and poly-fluoroalkyl substances (PFAS) Environmental Management Preliminary Sampling Program Final Report, September 2016; and
- Golder Associates (2017), Further Groundwater Assessment RAN SSSS, May 2017.

3.1.1 Source Areas

Based on the findings of the most recent DSI (Aurecon 2018c), the following areas were identified as major and minor source areas where PFAS-impacted surface water, groundwater, soil, or sediment was identified (refer to **Figure 2, Appendix A**):

Major Source Areas

- Former Fire Training Ground (FTG); and
- Wetlands straddling South Creek, which historically received PFAS discharges from the former FTG.

Minor Source Areas

- The Fire Station and nearby Ornamental Lake;
- Stormwater drains;
- Former Sewage Treatment Plant (STP) and associated settling lagoons;
- Sports fields irrigated with Class C recycled water;
- Bushfire Zone;
- Sullage Pit;
- Closed Rifle Range Road landfill;
- Closed outdoor swimming pool landfill;
- Underground Storage Tanks (USTs) in CER03 and the Filling Station;
- Aboveground Storage Tank (AST) (Demonstration Building); and
- Former dry-cleaning facility.

3.1.2 Migration Pathway

The migration of PFAS occurs through several pathways involving soil, water, and biological uptake including:

- Leaching of PFAS from impacted soils into groundwater and surface water;
- Overland transport of particulate and dissolved PFAS into stormwater drains;
- Uptake of PFAS in surface water by biota;
- Vertical migration of dissolved PFAS to shallow groundwater aquifer;

- Transport of PFAS via groundwater to surface water (Hanns Inlet); and
- Transport of PFAS (both particulate and dissolved) through the surface waters of West and South Creek to downstream water bodies, including Hans Inlet and Western Port Bay.

Key potential and existing exposure pathways include:

- Direct contact with surface water and/or groundwater (human and ecological receptors);
- Incidental ingestion of surface water/or groundwater (human and ecological receptors);
- Ingestion of water (currently no known consumers and considered unlikely to occur) (human receptors only);
- Ingestion of biota (e.g. fish / eels) (human receptors only);
- Bioaccumulation – uptake from soil by biota (ecological receptors only);
- Bioaccumulation – uptake from sediment and water by biota (ecological receptors only); and
- Bioaccumulation – ingestion of terrestrial and aquatic biota by higher order terrestrial and migratory and non-migratory avian fauna (ecological receptors only).
- Further details are included in the DSI (Aurecon 2018c).

3.1.3 Receptors

Potential current and future receptors on-site include Defence personnel, contractors, site operations workers, general attendees, and site visitors. Off-site, potential receptors include residents of neighbouring properties, consumers of home-grown produce, terrestrial and aquatic ecosystems, recreational users of surface water (such as recreational fishers), as well as land users and environments located down gradient of groundwater (Aurecon, 2018c).

4. Data Quality Objectives

Data Quality Objectives

This SAQP has been developed based on a set of Data Quality Objectives (DQO) in reference to the DQO presented in the OMP (Aurecon 2018b) and based on guidance presented in the US Environmental Protection Agency (EPA 2006), and NEPM 2013 (Schedule B2). The DQO process comprises the following seven steps:

- Step 1: State the problem.
- Step 2: Identify the Decision.
- Step 3: Identify the Information Inputs.
- Step 4: Define the Boundaries of the Study.
- Step 5: Develop the Analytical Approach.
- Step 6: Specify Performance or Acceptance Criteria.
- Step 7: Develop the Plan for Obtaining the Data.

The DQOs are detailed in **Table 4.1**.

Table 4.1: Data Quality Objectives

Data Quality Step	Description
Step 1: State the Problem	The PMAP recommended ongoing surface water and groundwater monitoring be undertaken to assess variation in PFAS concentrations over time and across the Management Area.
Step 2: Identify the Decision	The main objective of the OMP is to monitor and assess variations in PFAS concentrations in groundwater and surface water over time and across the Management Area. In particular, to evaluate: • Migration of PFAS in groundwater from the Site, particularly in groundwater discharging to Site tidal creeks or directly into Hanns Inlet. • Conduct surface water sampling during a range of flow conditions, including worst-case scenario (e.g., extreme rainfall events).
Step 3: Identify the Information Inputs	• Objectives and scope of works of this plan. • Compare to findings from the DSI. • CSM, including potential sources, pathways and receptors. • Contaminants of concern (PFAS). • Field methods, such as sampling, sample storage and preservation, laboratory methods, quality control (QC) and quality assurance (QA). • Media to be sampled (surface water and groundwater samples), and location of samples. • Adopted assessment criteria for surface water and groundwater. • Field data (including water quality parameters and visual/olfactory observations) and laboratory analysis.
Step 4: Define the Boundaries of the Study	The plan comprises sampling locations within the Management Area to assess variation in PFAS concentrations over time and to measure the success of the remediation and management methods. • Ongoing monitoring will generally be undertaken within the boundaries of the Management Area (Figure 2, Appendix A) at groundwater and surface water monitoring locations as outlined in Table 5.2 and Table 5.3.

Data Quality Step	Description
	- Groundwater monitoring (gauging and sampling) and surface water sampling will be undertaken twice yearly every six months, nominally one event post-winter (September to November) and one event post-summer (March to May). - Additional surface water monitoring events may be recommended in the event of a heavy rainfall event, in which case sampling to take place following the first flush immediately (or as close as possible) to the event.
Step 5: Develop the Analytical Approach	The statistical parameter of interest is the true mean of the contaminant concentrations, as evaluated by calculating the 95% upper confidence interval (95% UCL) based on the concentrations reported in each media at each sampling location. Typically, calculation of the 95% UCL requires at least four results to be statistically valid. The plan will: - Compare PFAS concentrations in surface water and groundwater against the interim ecological screening levels for fresh and marine waters, drinking water and recreational water health-based guidance values in the PFAS NEMP 2.0 (2020). - Compare PFAS concentrations in surface water and groundwater against previous results to determine any trends or variations in concentrations. In particular, trends that suggest an exceedance of any relevant screening level prior to the next sampling event may trigger more frequent sampling to confirm any identified increasing trends.
Step 6: Specify Performance or Acceptance Criteria	Acceptance limits on field and laboratory data collected for this investigation will be in accordance with NEMP 2020. The acceptable limits on decision errors to be applied in the investigation and the manner of addressing possible decision errors have been developed based on the data quality indicators (DQIs) of precision, accuracy, representativeness, comparability and completeness, and are presented in this Section. The potential for significant decision errors will be minimised by completing a robust QA/QC program and by completing an investigation that has an appropriate sampling and analytical density for the purposes of the investigation.
Step 7: Develop the Plan for Obtaining the Data	The plan has been developed in accordance with the OMP (Aurecon, 2018b) and relevant guidelines through targeted monitoring of source-pathway-receptors. Samples are to be analysed by a National Association of Testing Authorities (NATA) accredited laboratory within approved sample holding times. The recommended holding time for PFAS is 28 days (Eurofins and Envirolab).

Data Quality Indicators

An assessment of the Data Quality Indicators (DQIs) relating to both field and laboratory procedures will be undertaken with appropriate documentation provided for each environmental element or media assessed. The DQIs adopted for the OMP are summarised in **Table 4.2**.

Table 4.2: Data Quality Indicators

Data Quality Indicator	Detail
QA Documentation	Provision of appropriate work plans, DQI and DQO defined for the Site and all QA/QC aspects documented.
Bias	A measure of the potential distortion in an analysis, which can result in errors in one direction (e.g. one laboratory consistently higher results or consistent poor spiked matrix recovery). Bias will be assessed with reference to the analysis of spiked matrix samples.
Representativeness	A qualitative measure of the confidence that data is representative of each medium present on the Site. Use of appropriate and documented sampling methods, sampling handling, preservation and transport, and holding times.

Data Quality Indicator	Detail
Precision	A quantitative measure of data variability or reproducibility, measured by the calculation of %RPD values for duplicate samples (i.e. measure of agreement). Precision in DQI can be measured as follows: • Percentage of the mean of the measurement such as Relative Percent Difference (i.e. %RPD). The %RPD will be calculated for the field and secondary duplicate (i.e. inter and intra-laboratory analysis); and • Use of similar analytical method and instrument (e.g. for inter-laboratory assessment). The %RPD will be considered as acceptable if the values are less than 30% (NEPC 2013). Should there be a result that is greater than 30% difference, then a “review should be conducted of the cause (e.g. instrument calibration, appropriateness of method used)” (NEPC 2013). Laboratory analysis of intra- and inter-laboratory samples (1 per 10 samples collected) to be collected.
Accuracy	A quantitative measure of the closeness of data to a ‘true value’, measured by the analysis of spike, blank and laboratory control samples (LCS). The LCS consists of a standard reference material or a matrix of known concentration. For the purpose of assessing accuracy, it is required that at least one LCS for each process batch¹ be analysed (NEPC 2013).
Comparability	A qualitative measure of the confidence that data may be considered to be equivalent for each sampling and analytical event. By use of standard procedures, comparable methods, qualified personnel and review of sample integrity. When all results have been received, JBS&G will undertake a full review of the data for any anomalies in consideration of historical data at each location (where available), such as first-time detections or new exceedances being reported at locations which have not had detections or exceedances previously. If potentially anomalous data is identified or suspected, further confirmatory measures will be undertaken such as re-extraction and reanalysis of the sample by the laboratory and/or additional data quality review.
Completeness	A measure of the amount of usable data (expressed as a percentage - %) from a data collection activity, based on completeness of test program, overall QA/QC completeness and validity of data set.
<i>Notes:</i> 1. The NEPM Schedule B3 – Guideline on Laboratory Analysis of Potentially Contaminated Soil defines a laboratory process batch to consist of up to “20 samples that are similar in term of matrix and test procedure and are processed as one unit for the QC purposes” (NEPC, 2013).	

5. Plan for Obtaining Data

The SAQP is developed in accordance with the OMP and the relevant guidelines through a targeted approach to produce a resource-effective design that targets known and potential sources, pathways and receptors within the Management Area.

5.1 Monitoring Schedule

The proposed monitoring frequency for surface and groundwater as specified in the OMP (Aurecon, 2018b) is summarised in **Table 5.1** below:

Table 5.1: Monitoring Schedule

Matrix	Location	Interval ¹	Monitored Parameters
Surface Water	Drain discharge points and at locations indicated along the Site creek and drains, and at the floating docks in Hanns Inlet.	Biannual: Post-Winter (September to November) and Post Summer (March to May)	Field: Physical parameters ² Laboratory: PFAS Suite
Groundwater	Groundwater on Site from select wells.	Biannual: Post-Winter (September to November) and Post-Summer (March to May)	Field: Physical parameters ³ Laboratory: PFAS Suite

Source: (Aurecon 2018b)

Note:

1. Individual Remediation Action Plans may alter the frequency of monitoring.
2. Physical parameters include pH, EC, dissolved oxygen (DO), temperature and redox potential, level/elevation and flow rate.
3. Physical parameters include pH, EC, DO, temperature and redox potential.

The proposed sampling frequency for surface water monitoring locations listed in **Section 5.1.1** will be twice yearly, however this may vary through the implementation of the OMP as required. For example, additional sampling of ephemeral drains may need to be undertaken during wet season and post-extreme events to assess the potential increase in PFAS surface water concentrations following ‘first flush’ rainfall, and subsequent timeframe for attenuation.

5.1.1 Surface Water Monitoring Locations

The surface water sampling locations, as outlined in the OMP (Aurecon 2018b), are shown in **Figure 5, Appendix A** and are summarised in **Table 5.2**. Locations that were either destroyed or could not be located are depicted in **Figure 6, Appendix A**. Additionally, **Appendix C** provides a table listing the current and alternate IDs for each surface water location. Any deviations from the sampling locations specified in the OMP are detailed in **Section 1**.

Long-term surface water monitoring will be implemented to regularly measure PFAS concentrations within surface water pathways. These pathways are identified as the primary routes through which PFAS exposure may occur, potentially impacting both on-site and off-site receptors (Aurecon 2018c).

Table 5.2: Summary of Surface Water Monitoring Locations

Area	No. of Monitoring Locations	Monitoring Locations	Rationale
Surface Water Inflows – Drains Discharging onto the Site	4	SW021 to SW024	To evaluate whether PFAS-impacted stormwater is coming into the Management Area.

Area	No. of Monitoring Locations	Monitoring Locations	Rationale
Surface Water Outflows – Drains Discharging into Creeks or Hanns Inlet	16	SW001 to SW007, SW009, SW010, SW014, SW015, SW016, SW018, SW019, SW029, SW030	To evaluate whether the flux of PFAS discharging ultimately into Hanns Inlet is changing during implementation of the OMP
Bioretention Basin (Basin 5) Outlet pipe Discharging into Hanns Inlet	1	SW090*	
Surface Water Site’s Tidal Creeks Discharging into Hanns Inlet	5	SW017, SW020, SW027, SW028, SW071	To evaluate whether the flux of PFAS discharging via the tidal creeks into Hanns Inlet is changing during implementation of the OMP.
Additional Surface Water Locations Indicated for Sampling on the Figure in the OMP, but not Specified in the OMP text to be Sampled			
Former Sewage Treatment Plant	1	SW057	To evaluate whether the flux of PFAS discharging from these key potential source areas is changing during implementation of the OMP.
Fire Training Ground	1	SW072	
Additional Surface Water Locations Filling Data Gaps or Replacing Destroyed Locations			
Surface Water Outflows – Drains Discharging into Creeks or Hanns Inlet	6	SW073 to SW078	To evaluate whether the flux of PFAS discharging ultimately into Hanns Inlet is changing during implementation of the OMP.

*New Location (as of May 2024) to be sampled to monitor outflow from bioretention basin 5 as agreed with Defence.

5.1.2 Groundwater Monitoring Network

The network of on-site groundwater monitoring wells to be sampled and gauged, as outlined in the OMP (Aurecon 2018b) is summarised in **Table 5.3**. The monitoring network comprises 18 wells designated for gauging and 50 wells designated for sampling. Any deviations from the OMP are presented in **Section 1**, and wells that were either destroyed or could not be located are presented in **Figure 4, Appendix A**. **Appendix B** provides available well construction details, while **Appendix C** contains a table listing current and alternate IDs for each well.

The monitoring program will facilitate ongoing measurement of PFAS within groundwater, as well as the evaluation of groundwater quality through physico-chemical parameters. Gauging data will also support the assessment of any significant changes in groundwater flow direction. The groundwater monitoring well locations are shown on **Figure 3, Appendix A**.

Table 5.3: HMAS Cerberus Groundwater Monitoring Network

Item and (No. Locations)	Source Area Monitored	Monitoring Well/Bore ID
Groundwater Wells to be Gauged Only (18)	N/A	MW001, MW002, MW031, MW040, MW052, MW053, MW056, MW057, MW058, MW060, MW065, MW073, MW119, MW201, MW203, MW205, MW211, MW217S
Groundwater wells to be Sampled (50)	Off-Site to east	MW207, MW208
	Sports Fields	MW041
	Sullage Pit	MW025
	Fire Station	MW110
	Off-Site to north	MW206, MW209

Item and (No. Locations)	Source Area Monitored	Monitoring Well/Bore ID
	Off-Site to west and northwest	MW204
	Former FTG	MW017, MW018, MW063, MW074, MW075, MW117, MW121, MW122D, MW122S, MW212, MW213, MW214S, MW215D, MW215S, MW067,
	West of Building 192 – UST CER2	MW019
	Former washdown area of Water Treatment Plant (WTP) filters at FTG	MW064
	Rifle Range Road Landfill	MW028, MW029, MW030
	Former Outdoor Swimming Pool Landfill	MW033
	Reclaimed Land, Former Coal/Fuel Storage	MW034, MW036, MW102, MW068
	Former Dry Cleaning	MW109, MW069, MW070, MW071
	VT0368	MW112
	Corner Cook & Bass Rd - Former Petrol Station USTs	MW043, MW061, MW062
	South of Building 55 - Filling Station USTs	MW046, MW047
	Building 49 - Demonstration Building - AST	MW051
	Ward Room Store 102 - AST	MW054
	Up-gradient of former STP	MW003
	Former STP	MW217D, MW218
	Off-Site to west	MW210
	Off-Site to west & up-gradient from on-Site sources	MW202

Note: Groundwater wells MW009, MW027, MW066, MW103, MW104, & MW111 were found to be either destroyed or consistently dry during the former OMP monitoring events and are therefore no longer monitored as part of the OMP program from May 2024. Groundwater wells MW009, MW027 and MW214D were decommissioned by Stantec in June 2024.

5.1.3 Rationale for Groundwater Sampling Locations

Selected bores from the groundwater monitoring network were identified to assess changes in the nature and extent of PFAS plumes associated with the primary PFAS sources on the Site, which are located in the following areas:

- Former FTG and nearby wetlands along South Creek;
- Fire Station and Ornamental Lake;
- Marina area;
- Closed Rifle Range Road landfill;
- Former STP; and
- Sullage pit.

It was proposed that not all groundwater wells are to be sampled, as the bores nominated for sampling would monitor the same groundwater pathway.

Additional bores along the Site boundary were selected to provide ongoing data to evaluate whether PFAS-impacted groundwater was entering the Site or is present at locations hydraulically upgradient from PFAS sources on the Site. The selection of the bores from the monitoring network is expected to evolve with future revisions and implementation of the OMP.

6. Sampling Methodology

6.1 Prior to Sampling

Appropriate health and safety and, environmental control documentation will be completed prior to the commencement of fieldworks. This documentation includes:

- A Health, Safety and Environmental Management (HSEMP) including Safe Work Method Statement (SWMS) has been developed to encompass hazard management and risk mitigation. This Site-specific safety plan will be understood by all field staff prior to the commencement of field works.

6.2 Surface Water Sampling Methodology

Samples will be collected using the methodology outlined below, aligned with Australian/New Zealand Standard AS/NZS 5667.6:1998 Water Quality – Sampling, Part 6: Guidance on sampling rivers and streams, incorporating amendments based on Western Australia Department of Environmental Regulation (WA DER) guidance to address specific issues associated with PFAS sampling.

In-situ surface water sampling will be undertaken at the locations listed in **Table 5.2**, with the detailed methodology for surface water monitoring outlined in **Table 6.1**.

Table 6.1: Surface Water Sampling Methodology

Activity	Details
Field Parameters	• Surface water field parameters (i.e. pH, EC, oxidation reduction potential (ORP), DO, and temperature) will be recorded at the time of sampling using a pre-calibrated water quality meter. The water quality meter will undergo daily bump tested daily and re-calibrated as required. • Field observations such as colour, turbidity, presence of suspended solids and odours, sheen, oily film, nuisance organisms, floating debris or froth will be documented on field sampling sheets. The condition of the water body, including its type (lake, stream etc.) and channel width, will also be recorded where applicable.
Water Levels and Flow Measurements	• Water levels (including levels in South Creek bridge and Hanns Inlet at the marina) will be recorded in reference to the fixed survey markers at each surface water monitoring location, where practicable. Water levels will not be recorded if safe access is not available. • Flow measurements (excluding those at Hanns Inlet locations – SW001 to SW007, SW071 and SW078) will be recorded quantitatively where possible using the float method. Qualitative flow rates to be recorded when quantitative measurements cannot be obtained by field staff due to environmental conditions, such as low visibility or restricted access.
Sampling Method	• Where feasible, surface water samples will be collected directly into laboratory supplied sample containers using a 'grab' sampling method with a long-handled sampling device. The sample container will be secured to the end of the sampling device and lowered into the water with the capped opening facing downwards to avoid the collection of surface films. Where depth permits, the container will be positioned at least 10 cm below the surface water level and above the sediment bed before being reoriented so that the opening is facing upwards, allowing it to fill. • All samples will be 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' and in accordance with Industrial Waste Resources Guidelines (IWRG), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication 701.

Activity	Details
Sample Collection	- Water samples will be placed directly into appropriately labelled, laboratory-supplied sample bottles and packed in chilled containers for delivery to the laboratory under chain of custody (COC) documentation. - Sample containers will include water resistant labels attached to the sample bottles.
Decontamination	Re-useable sampling equipment (such as the long-handled sampling device) will be thoroughly washed using phosphate-free detergent (Liquinox) and subsequently double rinsed with de-ionised water before the sample collection.
Sample identification, preservation, transport and holding times	- Each sample will be labelled with the sample location, date, project identification number and sampler's initials. Sample labelling and naming will be in accordance with Annex L of the DCMM (Defence, 2021b). - Samples will be stored 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 will comply with the requirements set out in "Australian Standard AS/NZS 5567.1:1998 and AS 4482.1".
Field Records	Field records will include the following information: - Sampling time, date and name of the sampler; - Weather conditions; - Sample collection method; - Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised; and - Calibration and bump test records. - All sample documentation including field notebooks, reporting records, COC and equipment calibration certificates and procedures will be retained within project files.
Laboratory Testing	All surface water samples will be submitted for the PFAS analytical suite included in Section 7 .
Laboratory Testing – Quality Control	Surface water QC samples will be collected at the following frequencies as detailed in the OMP (Aurecon, 2018b): - Field duplicate (intra-laboratory) samples of 1 per 10 water samples (or 1 per batch if the batch is less than 10 samples) to be sent to the primary laboratory. - Field split (inter-laboratory) samples of 1 per 10 water samples to be sent to the secondary laboratory. - Rinsate blank sample of 1 per day to be collected off re-used sampling equipment (e.g. interface probe). - Trip blank samples of 1 per shipment to be included in the chilled sample containers upon transport to the laboratory. QC samples will be tested for the PFAS analytical suite included in Section 7.
Laboratory Accreditation	All surface water analysis will be undertaken by the following NATA-accredited laboratories: - Primary analysis will be undertaken by ALS Global Laboratories (Springvale, Victoria). - Secondary analysis will be undertaken by Eurofins (Dandenong South, Victoria).

In addition, sampling will be completed in accordance with the JBS&G field sampling guide which has been developed specifically for sampling for PFAS. The field sampling guide includes a detailed field checklist to mitigate potential sample contamination during the investigation. All sampling equipment will be Teflon-free to minimise potential for false negative results. All works will also be undertaken in accordance with the project HSEMP.

6.3 Groundwater Sampling Methodology

Groundwater samples will be collected following the methodology outlined below, based on Department of Defence, Pollution Prevention Guidance – Routine Water Quality Monitoring, EPA Victoria publication 699.1 Guidance, Groundwater Sampling Guidelines, with amendments made as per NEMP 2.0 (HEPA 2020) to address PFAS-specific considerations. Sampling will be conducted using the no purge HydraSleeve™ method as detailed in **Table 6.2**.

Table 6.2: Groundwater Sampling Methodology

Activity	Details
Well Gauging	- Standing Water Level (SWL) will be gauged using an interface probe, measured against a specified mark at the top of the well casing. - A consolidated groundwater gauging event (initial gauging round) will be undertaken across the first two days of each monitoring event to the extent practicable. Wells with specific or difficult access constraints will be excluded from this activity.
Groundwater Field Parameters	- Groundwater water quality field parameters will be recorded with a water quality meter after sample collection, using additional sample water from the deployed HydraSleeve™, decanted into a clean jar. - The following field parameters will be measured using a water quality meter: - pH; - EC; - ORP; - DO; and - Temperature. - All field instruments, including the water quality meter, will be calibrated prior to field events and re-calibrated during monitoring as required to ensure measurement accuracy. The water quality meter will also undergo daily bump-testing and recalibration as required. - Field observations, such as colour, suspended solids, turbidity, odour, sheen, oily film, nuisance organisms, floating debris, or froth will also be recorded on field sampling sheets, where relevant.
Deployment of HydraSleeve™	- Refer to Appendix D for additional guidance - HydraSleeves™ will be deployed near the base of wells, or a minimum of 2.5 m within the screen interval. A top weight will be used if water depth within the screen interval required compression of the HydraSleeve™. - Used HydraSleeves™ will be replaced with a new one after sample collection at each location. The depth of of HydraSleeve™ deployment will be recorded on field sheets for inclusion in the report. - Well construction details, including screen intervals, are provided in Appendix B.
Retrieval of HydraSleeve™ (Sample Collection)	- Refer to Appendix D for additional guidance - HydraSleeve™ devices deployed with bottom weights will remain in wells for a minimum of 4 hours to stabilise following deployment. - For wells with a shallow water column (nominally less than 2.5 m in height, depending on the HydraSleeve™ length), devices will be deployed both top and bottom weights, and will be left in the well for a minimum of 24 hours. This allows time for compression the HydraSleeve™ and stabilisation of the well. - Samples will be collected using a continuous pull method at approximately 30 cm per second, allowing water to pass through the check valve into the sample sleeve. - Collected samples will be discharged immediately via discharge tube to minimise changes in water chemistry.

Activity	Details
Sample collection by bailer	• If the HydraSleeve™ does not retrieve sufficient water, samples will be collected using a bailer. • Wells will be purged three (3) bore volumes, or until field parameters stabilise, or until purged dry, whichever occurs first, prior to sample collection.
Field Records	Field records will include the following information: • Sampling time, date and name of the sampler. • Weather conditions. • Sample collection method. • Sampling equipment decontamination procedures where non-disposable sampling equipment is utilised. • Calibration and bump test records. • Field parameter stabilisation will be recorded where samples are collected with bailer. All sample documentation, including notebooks, reporting records, COC and equipment calibration certificates and procedures will be retained within the project files.
Decontamination procedure	• Used HydraSleeve™ will be replaced with a new one after sample collection, eliminating the need for decontamination. • All re-usable sampling equipment (such as the interface probe) will be thoroughly washed using phosphate-free detergent (Liquinox), then double rinsed with de-ionised water before the next use. • Refer to Appendix C for additional guidance
Waste Management	• Liquid waste generated from the monitoring program will be temporarily stored on-site (west of fire training area, as agreed with Base Support) in either a drum or an Intermediate Bulk Container (IBC). Disposal to a licensed and/or recycling facility will occur once the drum(s) or container(s) are full, or at the end of each sampling event, if required. • Any solid waste generated during the sampling event will be disposed of either off-Site or in appropriate bins on-Site, as approved by Base Support.
Sample identification, preservation transport and holding times	• Each sample will be labelled with the sample location, date, project identification number and sampler's initials. Sample labelling and naming will be in accordance with Annex L of the DCMM (Defence, 2021b). • Samples will be collected directly into appropriately preserved, laboratory supplied bottles (Teflon-free) and stored in chilled containers for delivery to the laboratory under COC documentation. • Preservation procedures, sample storage requirements, and holding times will adhere to Australian Standard AS/NZS 5567.1:1998 and AS 4482.1.
Laboratory Testing	All groundwater samples will be submitted for the PFAS analytical suite included in Section 7.
Laboratory Testing – Quality Control	Groundwater QC samples will be collected at the following frequencies as detailed in the OMP (Aurecon, 2018b): • Field duplicate (intra-laboratory) samples of 1 per 10 water samples (or 1 per batch if the batch is less than 10 samples) to be sent to the primary laboratory. • Field split (inter-laboratory) samples of 1 per 10 water samples to be sent to the secondary laboratory. • Rinsate blank sample of 1 per day to be collected off re-used sampling equipment (e.g. interface probe). • Trip blank samples of 1 per shipment to be included in the chilled sample containers upon transport to the laboratory. QC samples will be tested for the PFAS analytical suite included in Section 7.

Activity	Details
Laboratory Accreditation	All groundwater analysis will be undertaken by the following NATA-accredited laboratories: • Primary analysis will be undertaken by ALS Global Laboratories (Springvale, Victoria) • Secondary analysis will be undertaken by Eurofins (Dandenong South, Victoria).

Quality Control Contingency Measures

In the event there are any issues identified with quality control samples, such as detects being reported in a blank, JBS&G will request the laboratories to undertake a detailed review of the results, and conduct re-analysis, if necessary, to confirm the detection. In the event that the detect in a blank sample is confirmed, JBS&G will notify Defence and provide analysis of the potential or source, if it can be determined, in the QA/QC section for each report.

The QA/QC evaluation will also address any RPD exceedances, internal laboratory quality outliers, or other data quality issues identified during the sampling event, along with an assessment of whether these issues impact on the overall reliability and usability of the dataset.

6.4 Sample Naming Convention

The sample naming convention to be adopted for the study will be as per that detailed in Annex L (Guidance on Data Management) of the Defence Contamination Management Manual (Defence, 2018, amended June 2021). A summary of sampling naming requirements is listed below:

- Property ID (PPPP, four characters).
- Type of sample recovered (e.g. MW: Monitoring Well, SW: Surface Water).
- Location Specific ID (000, minimum three numeric characters).
- For groundwater, the aquifer sampled [P (perched), S (shallow), I (intermediate), D (deep)].
- Date in reverse order (YYMMDD).

Examples, for groundwater 0066_MW104_S_200818 and surface water 0066_SW001_200818.

Naming convention for QA/QC samples:

- Blind Field Duplicate: PPP_QC1XX_YYMMDD.
- Blind Field Triplicate: PPP_QC2XX_YYMMDD.
- Rinsate: PPP_QC3XX_YYMMDD.
- Field Blank: PPP_QC4XX_YYMMDD.
- Trip Blank: PPP_QC5XX_YYMMDD.

The naming convention for newly installed sample locations will be guided by the specific requirements of the Site and previously installed sample locations. At the time of writing, the next available location IDs according to the respective base portion ESdat database for the relevant media are as follows:

- HMAS Cerberus: MW244 (monitoring well), SW005 (surface water), and
- It should be noted that the HMAS Cerberus Property ID for the Site is 0066.

6.5 Field Work Communication Protocol and Reporting

The works described above will comply with the Defence Field Work Communication Protocol and Reporting document (Defence, 2021) to ensure that the agreed scope has satisfactorily been completed. Processes to be followed include:

- Prior to field works: Field consultants to review SAQP prior to undertaking field works and take documentation into the field for easy reference.
- During field works: If a portion of the field works as defined in the SAQP cannot be completed owing to site conditions or circumstances, field consultants are to inform the project manager, who will in turn communicate with Defence.
- Post field works: The consultant will provide a Field Work Report (template provided in Defence, 2021) within five working days of receiving all laboratory analytical results.

6.6 Data Management

All data collected as part of the monitoring program will be reviewed and managed in accordance with the requirements of Annex L of the DCMM (Defence, 2021b), and uploaded into Defence's Environmental Data Management Software (EDMS). Data management will include the following:

- The Defence ESdat email address (DERP.LabReports@esdat.com.au) will be included on COCs as a laboratory report recipient.
- The laboratory Project ID and the laboratory provided ESdat files will be populated to match the Project ID setup in the Defence ESdat.
- The location code and sample naming conventions outlined in Annex L of the DCMM will be followed.
- Field data will be uploaded to Defence's EDMS.
- Laboratory data will be uploaded to Defence's EDMS, associated QA/QC data will be reconciled, and the laboratory data will be approved.

7. Sample Analysis

The key parameters of interest for the study comprise PFAS compounds that were historically present in firefighting foams used at the base, principally perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexanesulfonic acid (PFHxS) therefore, all samples recovered during the investigation will be analysed for a broad PFAS analytical suite comprising the analytes listed in **Table 7.1**.

Table 7.1: PFAS Analytical Suite

Group	Analyte
Perfluoroalkane Carboxylates (PFCAs)	Perfluorobutanoic acid (PFBA)
	Perfluoropentanoic acid (PFPeA)
	Perfluorohexanoic acid (PFHxA)
	Perfluoroheptanoic acid (PFHpA)
	Perfluorooctanoic acid (PFOA)
	Perfluorononanoic acid (PFNA)
	Perfluorodecanoic acid (PFDA)
	Perfluoroundecanoic acid (PFUnDA)
	Perfluorododecanoic acid (PFDoDA)
	Perfluorotridecanoic acid (PFTrDA)
	Perfluorotetradecanoic acid (PFTeDA)
Fluorotelomer Sulfonates (FTSs)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
Perfluoroalkyl sulfonates (PFASs)	Perfluorobutane sulfonic acid (PFBS)
	Perfluoropentane sulfonic acid (PFPeS)
	Perfluorohexane sulfonic acid (PFHxS)
	Perfluoroheptane sulfonic acid (PFHpS)
	Perfluorooctane sulfonic acid (PFOS)
	Perfluorodecane sulfonic acid (PFDS)
Perfluorooctane sulfonamidoethonals and perfluorooctane sulfonamidoacetic acids	N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)
	N-ethylperfluoro-1-octane sulphonamide (N-EtFOSA)
	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)
	N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)
	2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)
	N-ethyl-perfluorooctane sulfonamidoacetic acid (N-EtFOSAA)

8. Assessment Criteria

The assessment criteria used for groundwater and surface water in this OMP are drawn from the PFAS National Environmental Management Plan (NEMP) published by the Heads of Environmental Protection Authorities Australia and New Zealand (HEPA, 2020), the National Health and Medical Research Council's (NHMRC) Guidance on PFAS in Recreational Water (2019), and the findings of previous site assessments (e.g., prior DSIs). These criteria are summarised in **Table 8.1**. Screening levels will be reviewed and updated, if necessary, as part of the OMP review process.

The Tier 1 screening criteria that has been adopted for the relevant Environmental Values has been provided in **Table 8.1**.

Table 8.1: Tier 1 Screening Criteria for Water

Exposure Scenario	Adopted Assessment Criteria			
	PFOS / PFHxS µg/L	PFOA	Guidance	Original References
Groundwater				
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	HEPA 2020	NHMRC (20247)
Ecological	Refer to surface water ecological guidelines			
Surface Water				
Human Health - Surface Water Recreational	2 ²	10	HEPA 2020	NHMRC (2024) Jarman et al (2014)
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	HEPA 2020	NHMRC (2024)
Ecological	0.00023 ³	19	HEPA 2020	ANZG (2018) guidelines for fresh and marine water quality

1. Drinking Water screening guidelines have been adopted for screening purposes for Industrial Water use, Stock Water use and Agriculture/Parks/Gardens Water use.

2. Combined PFOS and PFHxS.

3. PFOS only; PFAS NEMP 2020 (HEPA 2020) allows for the adoption of the laboratory LOR as a screening level (Section 19.2.1). The adopted LOR for the ecological screening level is 0.01µg/L.

9. Deviations from the OMP

9.1.1 Groundwater

The following deviations to groundwater locations from the OMP were identified and are listed below in **Table 9.1**.

Table 9.1: Groundwater Deviations from the OMP

Groundwater ID	Sample/ Gauge	Status	Comments	Date of Change
MW007	Gauge only	Not found	Well not located.	November 2019
MW008	Gauge only	Not found	Well not located.	November 2019
MW009	Gauge & sample	Decommissioned	MW009 consistently dry throughout OMP and DSI. Monitoring discontinued from May 2024 and well decommissioned in June 2024.	June 2024
MW010	Gauge only	Destroyed	Destroyed during Site works. According to LC, wells to be replaced after works.	May 2021
MW014	Gauge only	Decommissioned	Destroyed during Site works. Replaced by new well MW073.	May 2023
MW015	Gauge & sample	Decommissioned	Destroyed during Site works. Replaced by new well MW074.	May 2023
MW016	Gauge & sample	Decommissioned	Destroyed during Site works. Replaced by new well MW067.	May 2021
MW017	Gauge & sample	Sampled using a bailer	Limited water column, insufficient to deploy a HydraSleeve™ so well is consistently sampled with a bailer.	November 2019
MW020	Gauge & sample	Destroyed	Destroyed during Site works. MW019, within the same area, is sampled.	November 2019
MW021	Gauge & sample	Destroyed	Destroyed during Site works. According to LC, well was replaced with MW066 but unable to locate as it is beneath a layer of crushed rock and inaccessible.	November 2019
MW022	Gauge only	Destroyed	Destroyed during Site works. Unknown whether replacement wells to be constructed.	November 2019
MW023	Gauge only	Destroyed	Destroyed during Site works. Unknown whether replacement wells to be constructed.	November 2019
MW027	Gauge & sample	Decommissioned	MW027 consistently dry throughout OMP and DSI. Monitoring discontinued from May 2024 and well decommissioned in June 2024.	June 2024
MW032	Gauge only	Not found	Destroyed during Site works. Replaced by new well MW060.	November 2019
MW035	Gauge & sample	Destroyed	Destroyed during Site works. Replaced by new well MW068.	November 2019
MW038	Gauge & sample	Destroyed	Destroyed during Site works. Replaced by new well MW070.	November 2019
MW039	Gauge only	Destroyed	Destroyed during Site works. Replaced by new well MW069.	November 2019

Groundwater ID	Sample/ Gauge	Status	Comments	Date of Change
MW044	Gauge & sample	Not found	Destroyed during Site works. Replaced by new well MW061.	May 2020
MW045	Gauge & sample	Not found	Destroyed during Site works. Replaced by new well MW062.	May 2020
MW048	Gauge & sample	Not found	Well not found, presumed destroyed. Nearby well MW047 is sampled.	November 2019
MW053	Gauge only	Not found	Located within excavation area, presumed to be destroyed. Unknown whether replacement well to be constructed.	November 2022
MW060	Gauge only	New Location	New well installed as a replacement for MW032.	November 2020
MW061	Gauge & sample	New Location	New well installed as a replacement for MW044.	November 2020
MW062	Gauge & sample	New Location	New well installed as a replacement for MW045.	November 2020
MW063	Gauge & sample	New Location	New well installed as a replacement for MW115.	November 2020
MW064	Gauge & sample	New Location	New well installed as a replacement for MW100.	November 2020
MW065	Gauge only	New Location	New well installed as a replacement for MW101.	November 2020
MW066	Gauge & sample	Destroyed	Well confirmed to be destroyed and monitoring to be discontinued from May 2024.	May 2024
MW067	Gauge & sample	New Location	New well installed as a replacement for MW016.	May 2021
MW068	Gauge & sample	New Location	New well installed as a replacement for MW035.	May 2021
MW069	Gauge & sample	Depth to groundwater could not be gauged	Water column was below the sleeve.	November 2023
MW070	Gauge & sample	Not Sampled	New well installed as a replacement for MW039 in May 2021. Location was found to be dry during May 2023 event. Will continue to be monitored and will be sampled if water is present in future events.	May 2023
MW071	Gauge & sample	New Location	New well installed as a replacement for MW116.	May 2021
MW073	Gauge Only	New Location	New well installed as a replacement for MW014.	May 2023
MW074	Gauge & sample	New Location	New well installed as a replacement for MW015.	May 2023
MW075	Gauge & sample	New Location	New well installed as a replacement for MW219.	May 2023
MW100	Gauge & sample	Destroyed	Destroyed during Site works. Replaced by new well MW064.	November 2019

Groundwater ID	Sample/ Gauge	Status	Comments	Date of Change
MW101	Gauge only	Destroyed	Destroyed during site works. Replaced by new well MW065.	November 2019
MW103	Gauge only	Destroyed	Well confirmed to be destroyed and monitoring to be discontinued from May 2024.	May 2024
MW104	Gauge only	Destroyed	Well confirmed to be destroyed and monitoring to be discontinued from May 2024.	May 2024
MW111	Gauge & Sample	Destroyed	Well not located since November 2022 and believed to be destroyed as part of construction works in area. Monitoring to be discontinued from May 2024.	May 2024
MW113	Gauge only	Destroyed	Destroyed during Site works. According to LC, wells to be replaced after works.	November 2019
MW114	Gauge & Sample	Not found	Buried as a result of Site works. Unknown whether replacement wells to be constructed.	November 2020
MW115	Gauge & sample	Not found	Destroyed during Site works. Replaced by new well MW063.	November 2019
MW116	Gauge & sample	Destroyed	Destroyed during Site works. Replaced by new well MW071.	November 2019
MW118	Gauge & sample	Destroyed	Destroyed during Site works. Unknown whether replacement wells to be constructed.	November 2019
MW122S	Gauge & Sample	Unable to open	Well requires maintenance, the gatic cover is rusted hence requires replacement.	November 2022
MW200	Gauge only	Destroyed	Destroyed during Site works. Unknown whether replacement wells to be constructed.	November 2019
MW216	Gauge & sample	Damaged/Not located	Damaged during Site works. According to LC, damage was repaired but unable to locate repaired well.	Damaged: Nov 2019 Not located: Nov 2020
MW214S	Gauge only	Replacement monitoring location for MW214D	Well listed as gauge only but will be gauged and sampled instead of MW412D which was decommissioned in June 2024.	June 2024
MW214D	Gauge & sample	Decommissioned	Well decommissioned in June 2024	June 2024
MW219	Gauge & Sample	Decommissioned	Destroyed during Site works. Replaced by new well MW075.	May 2023

9.1.2 Surface Water

The following deviations to surface water locations from the OMP were identified and are listed below **Table 9.2**.

Table 9.2: Surface Water Deviations from the OMP

Surface Water ID	Sample/ Gauge	Status	Comments	Date of Change
SW002	Sample	Not sampled	Location was dry.	November 2023
SW003	Sample	Not sampled	Location was dry.	November 2023
SW006	Sample	Not sampled	Outlet pipe was clogged full of sand and unable to be sampled.	November 2023
SW008	Sample	Reconstructed/modified	Replacement location SW078.	November 2020
SW011	Sample	Destroyed	Destroyed during Site works. Replacement location SW075.	November 2020
SW012	Sample	Destroyed	Destroyed during Site works. Replacement location SW074.	November 2020
SW013	Sample	Destroyed	Destroyed during Site works. Replacement location SW073.	November 2020
SW030	Sample	Not sampled	Location was dry.	November 2023
SW031	Sample	Destroyed	Destroyed during Site works.	May 2021
SW032	Sample	Tap sample, not surface water	Location not to be sampled, as agreed with Defence.	May 2020
SW033	Sample	Not located/Destroyed	Sample point was a culvert drain and could not be located and was subsequently destroyed during development works.	Not located November 2019 Destroyed May 2021
SW034	Sample	Tap sample, not surface water	Location not to be sampled, as agreed with Defence.	May 2020
SW035	Sample	Destroyed	SW073 to be sampled in place of SW035.	November 2019
SW058	Sample	Destroyed	Destroyed during Site works.	May 2021
SW072	Sample	Not sampled	Location was dry.	November 2023
SW073	Sample	New location	New location replacing SW013.	November 2020
SW074	Sample	New location	New location replacing SW012.	November 2020
SW075	Sample	New location	New location replacing SW011.	November 2020
SW076	Sample	New location	Outlet of bio-retention basin in north-eastern portion of the Site to target Fire Station source.	November 2020
SW077	Sample	New location	Outlet of new bio-retention basin in eastern portion of the Site to target Former Ornamental Lake source.	November 2020
SW078	Sample	New location	New location replacing SW008.	November 2020
SW090	Sample	New location	Bioretention basin (Basin 5) outlet pipe discharging into Hanns Inlet to be sampled as agreed with Defence.	May 2024

9.1.3 Changes to the Assessment Criteria

In the OMP, the adopted recreational use criteria were 0.7 µg/L for Sum of PFOS and PFHxS, and 5.6 µg/L for PFOA. These were based on the values in the PFAS NEMP (2018), which was in effect at the time the OMP was issued. With the release of the PFAS NEMP 2.0 (2020), the adopted recreational use criteria have been updated to be 2 µg/L for Sum of PFOS and PFHxS, and 10 µg/L for PFOA.

10. Reporting

10.1 Factual Reporting

A factual report will be prepared at the completion of each monitoring event, summarising the data and findings. The report will be prepared in accordance with the Defence PFAS OMP Factual Report Guidance document (Department of Defence, 2021a) and will include the following information:

- Introduction.
- Scope of work completed during the monitoring event.
- Field activities undertaken and description of sampling methodologies used.
- Field observations (e.g. condition of monitoring wells, description of purged water) and water quality parameter measurements.
- Use of nomenclature of sampling locations as per DCMM Annex L (Defence, 2021b).
- Summary of any changes to the monitoring network condition that may affect data integrity, including recommendations for repair, replacement or decommissioning of monitoring location.
- Evaluation of adopted assessment criteria to ensure continued applicability.
- QA/QC evaluation to confirm the suitability of the data for assessment purposes
- Summary tables presenting gauged groundwater and surface water levels.
- Presentation of inferred groundwater contours for the uppermost Brighton Group aquifer and inferred groundwater flow direction in a figure.
- Summary tables of analytical results in comparison to adopted assessment criteria, managed within the Defence ESdat database.
- Figures showing results in accordance with the OMP Factual Report preparation guidance.
- Laboratory reports, COC documentation, field sampling records, data validation and QA/QC details, equipment calibration certificates and bump test records and other relevant documentation.
- Any deviations from the SAQP encountered during completion of the sampling event, the justification for the changes and any impacts of these changes on the data/program.
- In the event that further investigation, management and/or remediation are required, recommendations will be presented in a separate 'technical memorandum'.

10.2 Ongoing Monitoring Report (OMR)

Upon completion of each agreed monitoring period an OMR will be prepared in accordance with the Defence PFAS OMP Annual Interpretive Report Guidance document (Department of Defence, 2022). As a minimum, each interpretive report should include the following:

- The factual information described in **Section 1.1**.
- Evidence of compliance with the requirements of the SAQP and meeting stated objectives of the OMP.
- Relevant figures depicting sampling locations and site-specific hydrogeological features.
- Use of appropriate nomenclature of sampling locations as per DCMM Annex L (Defence, 2021b).
- Laboratory results and analysis including comparison with relevant screening criteria as identified in each OMP; data to be managed through the Defence ESdat database, and naming of sampling locations as per DCMM Annex L (Defence, 2021b).

- Assessment and commentary on appropriate QA/QC procedures.
- A discussion of analytical results in relation to the following:
 - Trends in PFAS concentrations, including an assessment of temporal changes and/or changes to the extent of PFAS impacts. Trends should be assessed using an appropriate statistical analysis approach (e.g. using Mann-Kendall or similar analysis), with a specified level of confidence based upon the number of monitoring rounds completed.
 - Consideration, based on data trends, as to whether any of the existing remediation / management measures should be re-assessed, with a view to potential modification, supplementation or cessation.
 - Assessment of whether changes to the CSM and/or risk assessment are required.
 - Whether recalibration or changes to the groundwater model are required to provide a better understanding of the potential future extent of PFAS impact in groundwater.
- Based on the data obtained, an assessment of the OMP sampling requirements with a view to establishing whether the number of locations monitored could be reduced, such as where PFAS concentrations are stable and are considered to present a low risk to receptors:
 - Additional monitoring locations are required, including the installation of new monitoring wells or sampling of additional existing wells (and/or private bores) to provide better understanding of the nature, extent or magnitude of PFAS impacts in a particular portion of the Management Area.
 - The frequency of monitoring should increase or decrease to provide better understanding of PFAS concentration fluctuations and potential risks to receptors.
 - Monitoring of additional media should be included in the OMP. For example, if PFAS concentrations in groundwater and / or surface water increase such that PFAS concentrations in the surface waters of Hanns Inlet increase significantly (that is, above 0.1 µg/L), sampling of fish may be warranted to evaluate whether PFAS concentrations in fish flesh or liver exceed respective screening levels (Aurecon 2018b).
- An overview of remedial works or construction and maintenance activities undertaken in the MA during the reporting period, which may impact the CSM. Defence will assist with understanding other activities occurring within the management area during the monitoring period.
- All deviations from the SAQP encountered in the monitoring period will be documented, along with a statement of how these deviations impact on the DQOs or overall objectives of the OMP.
- A statement as to whether the risk profile has changed overall, or at any specific location in the MA. Based on potential changes to the risk profile, recommendations would be made as to whether this should trigger an OMP and/or PMAP review, or other actions.
- The sampling event Factual Reports and SAQP for the relevant monitoring period will be appended to the OMR.

In addition to the OMR, a Factsheet summarising the period of sampling and findings will be prepared to accompany the publication of the OMR.

10.3 SAQP Review

Prior to each monitoring event, the SAQP will be reviewed for compliance with the guidelines outlined in **Section 1.4** (and subsequent iterations), and to capture any changes to the site setting, CSM or monitoring network as a result of activities conducted on Site or resulting from an update to the OMP.

Any changes to the SAQP identified as part of the review are to be documented by way of a revision of the SAQP.

11. References

Australian and New Zealand Guidelines (2018), Australian and New Zealand Guidelines for Fresh and Marine Water Quality.

Australian Standard (2005), AS 4482-2005 Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 – Non-volatile and semi-volatile compounds (withdrawn as pending revision, referred to for ‘state of knowledge’).

Australian/New Zealand Standards (1998) (AS/NZS 5667.1:1998) ‘Water quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.

Australian/New Zealand Standard (1998), AS/NZS 5667.6:1998 Water Quality – Sampling, Part 6: Guidance on sampling rivers and streams.

Department of Defence (2019a), Pollution Prevention Management Manual – Annex 1L: Pollution Prevention Guidance - Routine Water Quality Monitoring.

Department of Defence (2021a), PFAS OMP Factual Report Guidance, May 2021.

Department of Defence (2021b), Contamination Management Manual (DCMM), Annex L: Data Management, June 2021.

Department of Defence (2022), PFAS OMP Annual Interpretive Report Guidance, Version 0.4, October 2022.

Department of Defence, Department of Energy (2018), Quality System Manual Schedule B15 USEPA DQO Process.

EPA Victoria (2009), Industrial Waste Resources Guidelines (IWRG), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication 701.

EPA Victoria (2022), Groundwater Sampling Guidelines, Publication 669.1, February 2022.

The Heads of EPAs Australia and New Zealand (HEPA; 2020) PFAS National Environmental Management Plan (NEMP), Version 2.0, January 2020.

National Environment Protection Council (NEPC; 2013), National Environmental Protection (Assessment of Site Contamination) Measure (as amended), registered May 2013.

National Health and Medical Research Council (2011 – updated 2024) National Water Quality Management Strategy Australian Drinking Water Guidelines, August 2024.

National Health and Medical Research Council (NHMRC), August 2019, Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water.

Standards Australia/Standards New Zealand (1998) AS5667.1:1998, Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.

U.S. Environmental Protection Agency (USEPA; 2006), Guidance for the Data Quality Objectives Process (EPA QA/G-4).

USEPA (2002), Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8), November 2002.

Aurecon Australasia Pty Ltd (Aurecon 2018a), HMAS Cerberus PFAS Management Area Plan, October 2018.

Aurecon Australasia Pty Ltd (Aurecon 2018b), reference: 256337, HMAS Cerberus PFAS – Ongoing Monitoring Plan, October 2018.

Aurecon Australasia Pty Ltd (Aurecon 2018c), reference: 256337, Detailed Site Investigation - Investigation of per- and poly-fluoroalkyl substances at HMAS Cerberus, September 2018.

Cardno (2020a), PFAS OMP Factual Report: Biannual Sampling Event November 2019, HMAS Cerberus, April 2020.

Cardno (2020b), PFAS OMP Factual Report: Biannual Sampling Event May 2020, HMAS Cerberus, July 2020.

Cardno (2021a), PFAS OMP Factual Report: Biannual Sampling Event November 2020, HMAS Cerberus, June 2021.

Cardno (2021b), PFAS OMP Factual Report: Biannual Sampling Event June/July 2021, HMAS Cerberus, October 2021.

Cardno (2021c), PFAS OMP Annual Interpretive Report: November 2019 & May 2020 Sampling Events, HMAS Cerberus, November 2021.

Cardno (2022a), PFAS OMP Factual Report: Biannual Sampling Event November/December 2021, HMAS Cerberus, June 2022.

Cardno (2022b), PFAS OMP Factual Report: Biannual Sampling Event May 2022, HMAS Cerberus, December 2022.

Cardno (2023), PFAS OMP Factual Report: Biannual Sampling Event November 2022, HMAS Cerberus, April 2023.

Cardno (2024a), Ongoing Monitoring Report (November 2020 - May 2023), HMAS Cerberus, March 2024.

Cardno (2024b), Ongoing Monitoring Plan, HMAS Cerberus, 30 May 2024.

Cardno (2024c), PFAS OMP Sampling and Analysis Quality Plan (SAQP), HMAS Cerberus, 30 May 2024.

GHD Pty Ltd, September 2016, Defence per- and poly-fluoroalkyl substances (PFAS) Environmental Management Preliminary Sampling Program Final Report (GHD 2016).

12. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Appendix A Figures (after Cardno 2024c)





FIGURE 2
1:15,000 Scale at A3

Metres
0 500 1,000

Site Features

PFAS ONGOING MONITORING PLAN SAMPLING AND ANALYSIS QUALITY PLAN (SAQP)
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



Cardno now **Stantec**

Map Produced by Cardno now Stantec
Date: 2024-06-06 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-002-SiteFeatures_Cerberus.mxd 11
Aerial Imagery Supplied by Metromap (February, 2024)



Note: MW009, MW027 and MW214D were decommissioned in June 2024. MW214S will be gauged and sampled in November 2024.



FIGURE 4
1:13,000 Scale at A3

Metres

0 250 500

Groundwater Monitoring Locations - Destroyed / Not Located / Consistently Dry **PFAS ONGOING MONITORING PLAN SAMPLING AND ANALYSIS QUALITY PLAN (SAQP)** **HMAS CERBERUS, VIC, 3920** **DEPARTMENT OF DEFENCE**

Cardno now **Stantec**

Map Produced by Cardno now Stantec
Date: 2024-04-16 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-078-Destroyed_GWBoreLocations_Cerberus.mxd 04
Aerial Imagery Supplied by Metromap



FIGURE 7
1:13,000 Scale at A3

Metres

0 250 500

Surface Water Monitoring Locations

ONGOING MONITORING PLAN
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



Cardno now Stantec

Map Produced by Cardno now Stantec
Date: 2024-06-12 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-079-SWLocations_Cerberus.mxd 06
Aerial Imagery Supplied by Metromap



FIGURE 6
1:13,000 Scale at A3

Metres
0 250 500

Destroyed/Not Located Surface Water Monitoring Locations

PFAS ONGOING MONITORING PLAN SAMPLING AND ANALYSIS QUALITY PLAN (SAQP)
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE

Cardno now Stantec

Map Produced by Cardno now Stantec

Date: 2024-06-12 | Project: DEF19008

Coordinate System: GDA 1994 MGA Zone 55

Map: DEF19008-GS-080-Destroyed_SWBoreLocations_Cerberus.mxd 03
Aerial Imagery Supplied by Metromap

Appendix B Well Construction Details

Site ID	Project ID	Location Code	TOC (mAHD)	Top Screen Depth (mBTC)	Bottom Screen Depth (mBTC)	Monitoring Unit	Base Depth (mBTC)	Casing Description	Inner Diameter (mm)	Screen Description	Comments	Stickup (m)
0066	VIC_0066_PFAS	MW001	3.387	-	-	S	-	-	-	-	-	0.82
0066	VIC_0066_PFAS	MW002	3.199	-	-	S	-	-	-	-	-	0.387
0066	VIC_0066_PFAS	MW003	5.03	-	-	S	-	-	-	-	-	0.59
0066	VIC_0066_PFAS	MW010	12.28	3	9	S	9.02	-	50	-	Dry	0
0066	VICTAS_Hist_202007-2	MW017	8.52	3	9	S	8.73	-	50	-	Existing Defence location	0.92
0066	VICTAS_Hist_202007-2	MW018	10.82	3	9	S	8.99	-	50	-	Existing Defence location	0.69
0066	VIC_0066_PFAS	MW019	9.442	3	9	S	9.05	-	50	-	-	0
0066	VIC_0066_PFAS	MW025	5.182	0.5	3.5	S	4.36	-	50	-	-	1
0066	VICTAS_Hist_202007-2	MW028	4.34	0.8	3.8	S	5.03	-	50	-	Existing Defence location	1.22
0066	VICTAS_Hist_202007-2	MW029	2.93	0.5	3.5	S	4.51	-	50	-	Existing Defence location	1.18
0066	VICTAS_Hist_202007-2	MW030	2.51	0.4	3.3	S	2.87	-	50	-	Existing Defence location	1.14
0066	VICTAS_Hist_202007-2	MW031	5.59	2	7	S	6.61	-	50	-	Existing Defence location	0.95
0066	VIC_0066_PFAS	MW033	2.949	1.8	3.2	S	3.15	-	50	-	-	0
0066	VIC_0066_PFAS	MW034	3.099	3	9	S	9	-	50	-	-	0
0066	VIC_0066_PFAS	MW036	2.378	1.5	6	S	6.05	-	50	-	-	0
0066	VICTAS_Hist_202007-2	MW040	3.385	3.6	9	S	3.62	-	50	-	Existing Defence location	0
0066	VIC_0066_PFAS	MW041	3.554	3	6	S	4.04	-	50	-	WSP End of Bore Hole 9 m	0
0066	VICTAS_Hist_202007-2	MW043	6.988	3	9	S	10.2	-	50	-	Existing Defence location	0
0066	VICTAS_Hist_202007-2	MW046	3.116	2	6	S	6	Class 18 uPVC	37.5	Class 18 Slotted PVC	Existing Defence location	0
0066	VIC_0066_PFAS	MW047	3.204	3	6	S	6	-	50	-	WSP End of Bore Hole 6 m	0
0066	VIC_0066_PFAS	MW051	3.493	1	5	S	5.02	-	50	-	-	0
0066	VIC_0066_PFAS	MW052	3.773	1	4.5	S	1.79	-	50	-	-	0
0066	VIC_0066_PFAS	MW054	8.507	6	12	I	12.32	-	50	-	-	0
0066	VIC_0066_PFAS	MW057	8.1807	2	6	S	7.03	-	50	-	-	1
0066	VIC_0066_PFAS	MW058	8.403	2	6	S	7.02	-	50	-	-	1
0066	VIC_0066_PFASOMP	MW060	2.072	-	-	-	-	-	-	-	Replacement well for MW032	-
0066	VIC_0066_PFASOMP	MW061	6.907	-	-	-	-	-	-	-	Replacement well for MW044	-
0066	VIC_0066_PFASOMP	MW062	6.938	-	-	-	-	-	-	-	Replacement well for MW045	-
0066	VIC_0066_PFASOMP	MW063	10.885	-	-	-	-	-	-	-	Replacement well for MW115	-
0066	VIC_0066_PFASOMP	MW064	10.419	-	-	-	-	-	-	-	Replacement well for MW100	-
0066	VIC_0066_PFASOMP	MW065	10.713	-	-	-	-	-	-	-	Replacement well for MW101	-
0066	VIC_0066_PFASOMP	MW067	9.054	2.5	9	-	9	PVC	50	-	Replacement well for MW016/GW07-VT0067	0
0066	VIC_0066_PFASOMP	MW068	2.964	3	7	-	7	PVC	50	-	Replacement well for MW035/GW02-VT0367	0
0066	VIC_0066_PFASOMP	MW069	9.363	3	9	-	9	PVC	50	-	Replacement well for MW038/GW03-VT0368	0
0066	VIC_0066_PFASOMP	MW070	9.503	3	9	-	9	PVC	50	-	Replacement well for MW039/GW02-VT0368	0
0066	VIC_0066_PFASOMP	MW071	9.435	8	11	-	11	PVC	50	-	Replacement well for MW116	0
0066	VIC_0066_PFASOMP_23	MW073	9.799	6	9	-	9	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Formally MW014R	0
0066	VIC_0066_PFASOMP_23	MW074	11.614	6	9	-	9	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Formally MW015R	0
0066	VIC_0066_PFASOMP_23	MW075	12.92	9	12	-	12	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Formally MW219R	0
0066	VICTAS_Hist_202007-2	MW102	3.394	1.5	4.5	S	4.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.06
0066	VIC_0066_PFAS	MW109	10.377	7	9.9	S	10.04	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	-	0.08
0066	VIC_0066_PFAS	MW110	2.89	2.5	5.4	S	5.41	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Dry	0.14
0066	VIC_0066_PFAS	MW112	10.569	7	10.9	S	9.94	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Dry - End of Borehole 12 m	0.18
0066	VIC_0066_PFAS	MW117	11.779	6.85	9.85	S	9.99	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Dry	0.12
0066	VIC_0066_PFAS	MW119	5.473	4	7	S	7.04	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Dry - End of Borehole 9 m	0.12
0066	VIC_0066_PFAS	MW121	2.908	2.1	5.1	S	5.9	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	-	-
0066	VIC_0066_PFAS	MW122D	2.293	3	6	I	6.88	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	-	-
0066	VIC_0066_PFAS	MW122S	1.454	0.4	1.5	S	1.48	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	-	-
0066	VICTAS_Hist_202007-2	MW201	1.7	6.5	9.5	S	10	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.82
0066	VICTAS_Hist_202007-2	MW202	12.39	7	10	S	10.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.69
0066	VICTAS_Hist_202007-2	MW203	16.5	7.5	10.5	S	11	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.8
0066	VIC_0066_PFAS	MW204	13.74	7	10	S	10.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	-	0.73
0066	VICTAS_Hist_202007-2	MW205	9.08	7.5	10.5	S	11	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.82
0066	VICTAS_Hist_202007-2	MW206	6.29	7.8	10.8	S	11.3	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.8
0066	VIC_0066_PFAS	MW207	8.2	8	11	S	11.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	-	0.86
0066	VICTAS_Hist_202007-2	MW208	7.69	7.5	10.5	S	11	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.76
0066	VICTAS_Hist_202007-2	MW209	13.44	7.5	10.5	S	11	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.78
0066	VICTAS_Hist_202007-2	MW210	3.17	5	8	S	8.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.72
0066	VICTAS_Hist_202007-2	MW211	9.02	7.5	10.5	S	11	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.68
0066	VICTAS_Hist_202007-2	MW212	2.225	-	-	S	2.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Historic well, no borelogs/construction information available	0.864
0066	VICTAS_Hist_202007-2	MW213	2.271	-	-	S	2.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Historic well, no borelogs/construction information available	0.875
0066	VICTAS_Hist_202007-2	MW214D	8.361	9	12	I	12.6	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Decommissioned in 2024	0.766
0066	VICTAS_Hist_202007-2	MW214S	8.458	3.5	6.5	S	7	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.86
0066	VICTAS_Hist_202007-2	MW215D	9.248	10	12	I	12.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.79
0066	VICTAS_Hist_202007-2	MW215S	9.261	4.5	7.5	S	8	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.877
0066	VICTAS_Hist_202007-2	MW217D	4.731	6	8	I	8.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.825
0066	VICTAS_Hist_202007-2	MW217S	4.763	1.6	3.6	S	4.1	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.845
0066	VICTAS_Hist_202007-2	MW218	4.948	7	9	I	9.5	50 mm Class 18 PVC	50	Machine Slotted PVC Pipe	Existing Defence location	0.885
-¹ Data not Available												

Appendix C Groundwater and Surface Water Locations Current and Alternate IDs

Location Code	Alternative Name
MW001	
MW002	MB03
MW003	MB01
MW010	GW01-VT0067
MW017	GW08-VT0067, VT0067 GW08
MW018	GW09-VT0067, VT0067 GW09
MW019	GW01-VT0191
MW025	GW02-VT0363
MW028	GW01-VT0365, VT0365 GW01
MW029	GW02-VT0365, VT0365 GW02
MW030	GW03-VT0365, VT0365 GW03
MW031	GW04-VT0365, VT0365 GW04
MW033	GW02-VT0366
MW034	GW01-VT0367
MW036	GW03-VT0367
MW040	GW01-VT0369, VT0369 GW01
MW041	GW02-VT0369
MW043	GW01-VT0370, VT0370 GW01
MW046	VT0382/BH17, GW01, VT0382 GW01, GW01-VT0371
MW047	GW02-VT0371
MW051	GW01-VT0372
MW052	GW02-VT0372
MW054	GW01-VT0373
MW057	GW01-VT0375
MW058	GW02-VT0375
MW060	MW32R
MW061	MW44R
MW062	MW45R
MW063	MW115R
MW064	MW100R
MW065	MW101R
MW067	GW016R
MW068	GW02R-VT0367
MW069	GW03R-VT0368
MW070	GW02R-VT0368
MW071	MW116R
MW073	MW014R
MW074	MW015R
MW075	MW219R
MW102	VT0369 MW102, C16
MW109	C22
MW110	
MW112	
MW117	GBH56
MW119	GBH59
MW121	
MW122D	MW122_D
MW122S	MW122_S
MW201	
MW202	
MW203	
MW204	
MW205	
MW206	

Location Code	Alternative Name
MW207	
MW208	
MW209	
MW210	
MW211	
MW212	
MW213	
MW214D	MW214_D - Decommissioned in 2024
MW214S	MW214_S
MW215D	MW215_D
MW215S	MW215_S
MW217D	MW217_D
MW217S	MW217_S
MW218	
SW001	
SW002	
SW003	
SW004	
SW005	
SW006	
SW007	
SW009	
SW010	
SW014	
SW015	
SW016	
SW017	
SW018	
SW019	
SW020	
SW021	
SW022	
SW023	
SW024	
SW027	
SW028	
SW029	
SW030	
SW057	
SW071	Dock
SW072	
SW073	
SW074	
SW075	
SW076	
SW077	
SW078	

Appendix D Procedures and Guidance

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Appendix C Stantec OMP sampling event report – December 2023 (Stantec 2024a)

PFAS OMP Factual Report

Biannual Sampling Event November/December 2023

HMAS Cerberus

DEF19008



Prepared for
Department of Defence
8 May 2024

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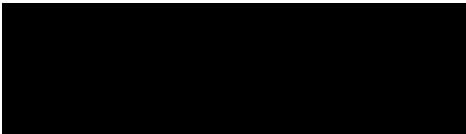
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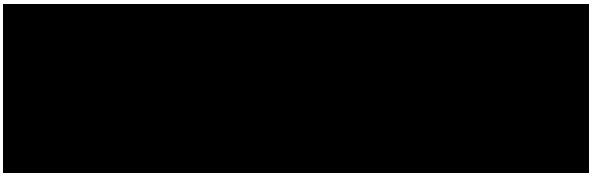
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Our report is based on information made available by the client. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to Cardno is both complete and accurate. Whilst, to the best of our knowledge, the information contained in this report is accurate at the date of issue, changes may occur to the site conditions, the site context or the applicable planning framework. This report should not be used after any such changes without consulting the provider of the report or a suitably qualified person.

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Chemical Names

DOC	Dissolved Organic Carbon
DO	Dissolved Oxygen
PFAS	Per- and Poly-fluoroalkyl Substances
PFHxS	Perfluorohexane Sulfonate
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate
TDS	Total Dissolved Solids (salinity of water)
TSS	Total Suspended Solids

Technical Terms

AFFF	Aqueous Film-Forming Foam
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ANZG	Australia and New Zealand Guidelines
AS	Australian Standard
AST	Above-ground Storage Tank
COC	Chain of Custody
DCMM	Defence Contamination Management Manual
DSI	Detailed Site Investigation
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EPA	Environment Protection Authority
HEPA	Heads of Environmental Protection Authority
IA	Investigation Area
LOR	Limit of Reporting
N/A	Not Applicable
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
MA	Management Area
QA	Quality Assurance
QC	Quality Control
RPD	Relative Percentage Difference
SAQP	Sampling and Analysis Quality Plan
SWL	Standing Water Level
UXO	Unexploded Ordnance

Units

ha	Hectares
mAHD	Metres Australian Height Datum
mBGL	Metres Below Ground Level
mbTOC	Metres below Top of Casing
mg/kg	Milligram per Kilogram (approximately equivalent to ppm)
mg/L	Milligram per Litre
ppm	Parts per Million
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per Centimetre (Electrical Conductivity - Water)

Site Specific

OMP	Ongoing Monitoring Plan
FTG	Fire Training Ground
EDMS	Environmental Data Management Software
WTP	Water Treatment Plant

1 Introduction

1.1 Background

Cardno now Stantec (Cardno) was engaged by the Australian Department of Defence (“Defence”) to carry out the Per- and Poly-Fluoroalkyl Substances (PFAS) Ongoing Monitoring Plan (OMP) at HMAS Cerberus, VIC 3920 (“the Site”). The location and layout of the Site are shown on Figures 1 and 2, presented in Appendix A.

The OMP was carried out in accordance with the scope and limitations presented in Cardno’s Sampling and Analysis Quality Plan (SAQP):

- > Cardno, November 2023, Reference: DEF19008, ‘PFAS Ongoing Monitoring Plan Sampling and Analysis Quality Plan (SAQP) HMAS Cerberus, Rev 9’.

For the purposes of this report:

- > “The Site” is defined as HMAS Cerberus, Victoria, and includes the channel and intertidal zone within Hanns Inlet, as shown by the yellow polygon on Figure 1, Appendix A.
- > The “management area” (MA) is defined as comprising Hanns Inlet and the northern half of the Site, thus coinciding with the investigation area (IA) for the intrusive component of the Detailed Site Investigation (DSI) works, as shown by the blue polygon on Figure 1, Appendix A. It should be noted that the southern portion of the Site was excluded from the DSI works due to the presence of unexploded ordnance (UXO), however it was not considered to affect the completeness of the DSI as there are no known or suspected Aqueous Film Forming Foam (AFFF) sources or pathways within this portion of the Site (Aurecon 2018c).

1.2 Purpose & Objectives

The objective of the OMP is to assess the changes in the nature and extent of PFAS within the environment, specifically where there is an identified potentially elevated risk to a receptor, or a potential future risk to a receptor, associated with Defence’s historical use of legacy AFFF.

The purpose of this PFAS OMP factual report is to provide an up-to-date status of the condition of the Site as it is currently understood in relation to the most recent sampling event.

The objectives of the report are:

- > To provide a succinct summary of the ninth sampling event of the OMP (E9) conducted in November/December 2023 sampling event and provision of analytical results with supporting tables and figures.
- > To provide confirmation of the current understanding of risk.
- > To provide supporting data for the assessment of management actions, where relevant.

1.3 Relevant Guidelines

This assessment has been undertaken in general accordance with applicable industry standards for a site investigation for the purpose, objectives and scope identified in this report. These standards are set out in:

- > Australian and New Zealand Guidelines, 2018, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*.
- > Australian Standard AS 4482-2005, 2005, *Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 – Non-volatile and semi-volatile compounds* (withdrawn as pending revision, referred to for ‘state of knowledge’).
- > Department of Defence, Department of Energy, 2018, *Quality System Manual Schedule B15*.
- > Heads of Environmental Protection Authority’s Australia and New Zealand (HEPA), 2020, *PFAS National Environmental Management Plan (NEMP), Version 2.0*, January 2020.

- > National Environment Protection Council (NEPC), 1999, *National Environmental Protection (Assessment of Site Contamination) Measure (as amended 2013)* (ASC NEPM).
- > National Health and Medical Research Council (NHMRC), 2019, *Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water*, August 2019.
- > Standards Australia, 1998, AS/NZ 5667:1998 *Water quality – sampling*.
- > U.S. Environmental Protection Agency (USEPA), 2006, *Guidance for the Data Quality Objectives Process (EPA QA/G-4)*.
- > USEPA, 2002, *Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)*.

2 Scope of Work

Cardno carried out the following tasks in order to satisfy the purpose and objectives of this assessment.

2.1 Review / Revision of the SAQP

Cardno undertook a review and update of the SAQP prior to commencement of sampling to include. The SAQP will be reviewed and revised (as required) prior to the next monitoring event scheduled for May 2024.

2.2 Groundwater Monitoring

Sampling of selected groundwater bores was performed in general accordance with the SAQP, applying methods set out in Section 3.1 of this report. The groundwater bores monitored as part of the OMP are presented in Table 2-1, and are shown on Figures 2 and 3, Appendix A.

Table 2-1 Groundwater Monitoring Locations

Monitoring Area	Location ID
On-site – Sampled (54)	MW003, MW009, MW017, MW018, MW019, MW025, MW027, MW028, MW029, MW030, MW033, MW034, MW036, MW041, MW043, MW046, MW047, MW051, MW054, MW061, MW062, MW063, MW064, MW066, MW067, MW068, MW069, MW070, MW071, MW074, MW075, MW102, MW109, MW110, MW111, MW112, MW117, MW121, MW122D, MW122S, MW202, MW204, MW206, MW207, MW208, MW209, MW210, MW212, MW213, MW214D, MW215D, MW215S, MW217D, MW218.
On-site – Gauge only (21)	MW001, MW002, MW031, MW040, MW052, MW053, MW056, MW057, MW058, MW060, MW065, MW073, MW103, MW104, MW119, MW201, MW203, MW205, MW211, MW214S, MW217S.

2.3 Surface Water Monitoring

The surface water sampling locations monitored as part of the OMP are presented in Table 2-2, and are shown on Figure 4, Appendix A.

Table 2-2 Surface Water Monitoring Locations

Monitoring Area	Location ID
On-site (33)	SW001, SW002, SW003, SW004, SW005, SW006, SW007, SW009, SW010, SW014, SW015, SW016, SW017, SW018, SW019, SW020, SW021, SW022, SW023, SW024, SW027, SW028, SW029, SW030, SW057, SW071, SW072, SW073, SW074, SW075, SW076, SW077, SW078.

2.4 Data Management

All the data included in the report have been collected, uploaded to the ESdat database and reviewed according to the data management requirements of the Defence Contamination Management Manual (DCMM) Annex L (Defence, 2021).

2.5 Deviations from the OMP SAQP

Deviations from the SAQP are summarised in Table 2-3 below. A summary of the event is as follows:

- > Sampling was undertaken at 50 groundwater monitoring wells. An additional 19 wells were gauged only.
- > 28 surface water locations were sampled.
- > Four groundwater monitoring wells could not be sampled, and two monitoring wells could not be gauged, the reasons of which are discussed below.
- > Five surface water locations could not be sampled, the reasons of which are discussed below.

Table 2-3 Deviations from the SAQP

Location	Deviation	Comment/Justification	Impact on Existing Dataset	Recommended Actions for next monitoring event (May 2024)
Groundwater				
MW009	Not sampled	Location dry	No impact – well has historically been dry throughout the DSI and OMP.	Replacement well not required given the source area (Stony Point landfill) has been discounted as a potential PFAS source (DSI, 2018). Recommend removing well from scope in next revision of SAQP.
MW027	Not sampled	Location dry	No impact – well has historically been dry throughout the DSI and OMP.	Replacement well not required given there is a well (MW025) downgradient of MW027 monitoring the same source area. Recommend removing well from scope in next revision of SAQP.
MW066	Not sampled	Replacement bore for MW021 not located during monitoring event. It was confirmed by Lendlease prior to Nov/Dec 2021 event that well is beneath layer of crushed rock. Unable to locate during November 2022, May 2023 and November/December 2023 event. The well is presumed to be destroyed during construction works.	Moderate impact - data missing from former washdown area of Water Treatment Plant (WTP) filters at FTG source area.	Change well status to 'Destroyed'. Replacement well not required as MW064 is downgradient to MW066 which can be sampled to monitor the source area. Recommend removing well from scope in next revision of SAQP.

Location	Deviation	Comment/Justification	Impact on Existing Dataset	Recommended Actions for next monitoring event (May 2024)
MW069	Depth to groundwater could not be gauged	Water column below sleeve.	Low impact – well was able to be sampled and sufficient gauging data has been captured during previous events.	-
MW103	Not gauged	Well not located and appears to have been destroyed during the remediation works at the former FTG.	Low impact – well is gauged only and there are other wells (MW063, MW074, MW075, MW067) in proximity which were gauged during this event.	Change well status to 'Destroyed'. Replacement well not required. Recommend removing well from scope in next revision of SAQP.
MW104	Not gauged	Well not located during November 2022, May 2023 and November/December 2023 events and presumed to be destroyed. Area of previous excavation works. New car park in area.	Low impact – well is gauged only and there are other wells (MW040, MW041, MW102) in proximity which were gauged during this event.	Change well status to 'Destroyed'. Replacement well not required. Recommend removing well from scope in next revision of SAQP..
MW111	Not sampled	Unable to locate during November 2022, May 2023 and November/December 2023 event. Well within fenced off construction area.	Low impact – Location was last sampled during the event in May 2022 and results have been consistent and generally <LOR or just above the LOR across all monitoring rounds.	Change well status to 'Destroyed'. Replacement well not required. Recommend removing well from scope in next revision of SAQP.
MW009, MW025, MW027, MW121, MW122D, MW212, MW213	Not gauged during initial gauging round	Various well locations were inaccessible due to heavy rainfall event and flooding in the area during initial gauging round.	Low impact – sufficient wells were gauged to prepare contours. The gauge only wells were gauged and sampling wells were gauged and sampled later during the monitoring event (with the exception of MW009 and MW025, which were found to be dry and therefore unable to be sampled).	-

Location	Deviation	Comment/Justification	Impact on Existing Dataset	Recommended Actions for next monitoring event (May 2024)
Surface Water				
SW002	Not sampled	Location dry	Potential data gap for surface water outflow from Base into Hanns Inlet. Location has previously reported results fluctuating from below laboratory LOR to above drinking water criteria during the ongoing monitoring program.	-
SW003	Not sampled	Location dry	Potential data gap for surface water outflow from Base into Hanns Inlet. Location has previously reported results below laboratory LOR across all monitoring events during the ongoing monitoring program.	-
SW006	Not sampled	Outlet pipe was clogged full of sand and unable to be sampled.	Potential data gap for surface water outflow from Base into Hanns Inlet. Location has previously reported results fluctuating from below laboratory LOR to above drinking water criteria during the ongoing monitoring program.	Recommend that during the next sampling event (May 2024) the stormwater pit for SW006 (and other related locations adjacent to Hanns Inlet, e.g. SW001, SW002, and SW005) are opened (where/if possible) to check if the locations are still connected to stormwater network, to identify whether stormwater flows out to Hanns Inlet at these locations, or only flows out at the bio-retention basin. If locations are still connected, then retain in OMP and continue to sample, as well as sample outlet of bio-retention basin. If no longer connected, remove from OMP and

Location	Deviation	Comment/Justification	Impact on Existing Dataset	Recommended Actions for next monitoring event (May 2024)
				only sample outlet of bio-retention basin.
SW030	Not sampled	Location Dry	Low impact - Location was last sampled during the event in May 2023. Results were above drinking water criteria but below recreational water criteria. A downstream location (SW027) was sampled during this event.	-
SW072	Not sampled	Location dry	Potential data gap for surface water upgradient of the former Fire Training Ground (FTG) source area. Location has previously reported results above drinking water criteria during the ongoing monitoring program, and has previously been dry across multiple monitoring events.	-

3 Methodology

3.1 Groundwater Sampling Methodology

Groundwater monitoring was undertaken using the HydraSleeve™ method as detailed in Table 3-1.

Table 3-1 Groundwater Sampling Method

Activity	Details
Date of Field Activity	30 November 2023 (gauging) and 4 to 6 December 2023 (sampling)
Well Gauging	Standing Water Level (SWL) was gauged using an interface probe, and measured against a specified mark at the top of the well casing. A consolidated groundwater gauging event (initial gauging round) was undertaken across the first two days of the monitoring event to the extent practicable. Wells which had specific or difficult access constraints were not included.
Groundwater Field Parameters	Groundwater water quality field parameters were recorded with a water quality meter after sample collection using extra sample water from within the deployed HydraSleeve™ decanted into a clean jar. The following field parameters were recorded using a water quality meter: - pH - Electrical conductivity (EC).

Activity	Details
	▪ Oxidation reduction potential (ORP). ▪ Dissolved oxygen (DO). ▪ Temperature. Field parameters measured by the water quality meter were recorded on field data records. All field instruments (e.g. water quality meter) were calibrated by the equipment supplier to optimise the accuracy of the measurements taken. Bump tests were also completed daily by field staff during the monitoring event. Calibration certificates are provided in Appendix D. Field observations such as colour, presence of suspended solids, turbidity, and the presence of odours, sheen, oily film, nuisance organisms, floating debris or frothing were also recorded on field sampling sheets, if relevant.
Deployment of HydraSleeves™	HydraSleeves™ were deployed near the base of wells (approximately 0.5 to 0.8 m above the base), or a minimum of 2.5 m within the screen interval. A top weight was utilised if water depth of screen required compression of the HydraSleeve™. Used HydraSleeves™ were replaced after the sampling event in preparation of the next event planned for May 2024.
Retrieval of HydraSleeves™ (Sample Collection)	Samples were collected using a continuous pull method at a rate of approximately 30 cm per second, allowing the water to pass through the check valve into the sample sleeve. Samples were discharged immediately (to minimise changes in chemistry) via a discharge tube. All HydraSleeves™ were replaced with new HydraSleeves™ after sampling in preparation for the next sampling event. Where insufficient water was available for HydraSleeve™ sampling, 3 monitoring well volumes were removed by bailer, or the well was purged dry, prior to bailer sample collection.
Decontamination procedure	New HydraSleeves™ were used at each groundwater monitoring well, thus removing the need for decontamination. Where HydraSleeves™ could not be used, dedicated bailers were used instead which also did not require decontamination. All re-usable sampling equipment was thoroughly washed using PFAS & phosphate-free detergent, then double rinsed with clean water before the sample collection.
Sample identification, preservation transport and holding times	Each sample was labelled with the sample location, date, project identification number and sampler's initials. Samples were collected directly into appropriately preserved laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under Chain of Custody (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 and AS 4482.1 as appropriate).
Laboratory Testing	All groundwater samples were analysed for the full PFAS analytical suite (see SAQP for full list of analytes). The primary laboratory was ALS Global Laboratories (Springvale), and the secondary laboratory (quality control) was Eurofins (Dandenong South). Both laboratories are NATA-accredited for the parameters tested. Copies of the NATA stamped laboratory reports and COC documentation are included in Appendix C.
Laboratory Testing – Quality Control	Groundwater quality control samples were collected as set out in the SAQP and analysed for the full PFAS analytical suite. ▪ Field duplicate (intra-laboratory) samples at one per 10 water samples (six samples). ▪ Field triplicate (inter-laboratory) samples at one per 10 water samples (six samples). ▪ Rinsate blank samples at one per day [collected off re-used sampling equipment (e.g. interface probe)] (three samples total). ▪ Trip blank samples of one per shipment included in the chilled sample containers upon transport to the laboratory (four samples total).

3.2 Surface Water Sampling Methodology

The surface water monitoring methods and activities are summarised in Table 3-2.

Table 3-2 Surface Water Sampling Method

Item	Details
Dates of Field Activity	4 to 6 December 2023
Water Levels	Water depths were measured where accessible and referenced against the survey reference marks.
Flow measurement	Qualitative flow was measured at surface water monitoring locations where accessible and where flow was occurring using the float method (except at Hanns Inlet locations and biobasin outlet locations – SW001 to SW008 and SW071 to SW078).
Field parameters	Surface water quality parameter field measurements (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 colour, presence of suspended solids, flow, turbidity, and the presence of odours, sheen, oily film, nuisance organisms, floating debris or frothing were also recorded on field sampling sheets, if relevant.
Sampling Method	Where possible, the samples were collected directly into sample containers. Where depth permits, the sample bottles were positioned at least 10 cm below the surface water level and above the sediment bed and orientated with the opening facing downwards to avoid the collection of surface films. Where access to surface water was difficult, the samples were collected by attaching the sample bottles to a long-handled sampling device (telescopic pole) which was directly filled by lowering the sample bottle into the surface water body. The sample bottle was attached so that the telescopic pole was not in direct contact with the opening of the sample bottle. 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' and in accordance with Industrial Waste Resources Guidelines (IWRG), <i>Sampling and Analysis of Waters, Wastewaters, Soils and Wastes</i>, Publication 701.
Decontamination	All re-usable sampling equipment (e.g., telescopic pole) were thoroughly washed using phosphate-free detergent (Liquinox), and subsequently double rinsed with clean water before the sample collection.
Sample identification, preservation, transport and holding times.	Each sample was labelled with the sample location, date, project identification number and sampler's initials. Sample labelling and naming was in accordance with Annex L of the DCMM (Defence, 2021). 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 and AS 4482.1 as appropriate).
Laboratory Testing	All surface water samples were analysed for the full PFAS analytical suite (see SAQP for full list of analytes). The primary laboratory was ALS Global Laboratories (Springvale), and the secondary laboratory (quality control) was Eurofins (Dandenong South). Both laboratories are NATA-accredited for the parameters tested. Copies of the NATA stamped laboratory reports and COC documentation are included in Appendix C.
Laboratory Testing – Quality Control	Surface water quality control samples were collected as set out in the SAQP and analysed for the full PFAS analytical suite. Field duplicate (intra-laboratory) samples at one per 10 water samples (four samples).

Item	Details
	- Field triplicate (inter-laboratory) samples at one per 10 water samples (four samples). - Rinsate blank samples at one per day [collected off re-used sampling equipment (e.g. telescopic pole)] (three samples total). - Trip blank samples of one per shipment included in the chilled sample containers upon transport to the laboratory (four samples total).

3.3 Quality Control / Quality Assurance

A critical aspect of site assessments is the demonstration of the quality of the data used as the basis for the assessment. This is achieved through a Data Validation process which includes a review of the following data quality indicators, as described in the SAQP:

- > QA documentation.
- > Bias.
- > Data Representativeness.
- > Data Precision & Accuracy.
- > Laboratory Performance.
- > Data Comparability.
- > Data Set Completeness.

A detailed review of these aspects has been undertaken, the results of which are presented in Appendix E. A summary of the data validation from the QA/QC review is included in Section 4.5 below.

3.4 Assessment Criteria

3.4.1 Groundwater

The adopted assessment criteria for groundwater are detailed in Table 3-3.

Table 3-3 Criteria for Groundwater

Exposure Scenario	Adopted Assessment Criteria		Guidance
	PFHxS + PFOS	PFOA	
	µg/L		
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	HEPA 2020
Ecological	0.00023 ³	19	HEPA 2020
1. Drinking Water screening guidelines have been adopted for screening purposes for Industrial Water use, Stock Water use and Agriculture/Parks/Gardens Water use. 2. Where the guideline value refers to the sum of PFOS and PFHxS, this includes PFOS only, PFHxS only, and the sum of the two. 3. PFOS only; The criterion of 0.00023 µg/L is lower than the laboratory limit of reporting (LOR), however, the PFAS NEMP 2020 allows for the adoption of the laboratory LOR (0.01 µg/L) as a detect threshold rather than a quantified measurement			

3.4.2 Surface Water

The adopted assessment criteria for surface water are detailed in 3-4.

Table 3-4 Criteria for Surface Water

Exposure Scenario	Adopted Assessment Criteria		Guidance
	PFHxS + PFOS	PFOA	
	µg/L		
Human Health - Surface Water Recreational	2 ²	10	HEPA 2020

Exposure Scenario	Adopted Assessment Criteria		Guidance
	PFHxS + PFOS	PFOA	
	µg/L		
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	HEPA 2020
Ecological	0.00023 ³	19	HEPA 2020
1. Drinking Water screening guidelines have been adopted for screening purposes for Industrial Water use, Stock Water use and Agriculture/Parks/Gardens Water use. 2. Where the guideline value refers to the sum of PFOS and PFHxS, this includes PFOS only, PFHxS only, and the sum of the two. 3. PFOS only; The criterion of 0.00023 µg/L is lower than the laboratory level of reporting (LOR), however, the PFAS NEMP 2020 allows for the adoption of the laboratory LOR (0.01 ug/L) as a detect threshold rather than a quantified measurement.			

4 Field Observations and Results

4.1 Conditions Impacting the Sampling Event

In the seven days prior to the sampling event, 19.4 mm of rain was recorded. During the E9 sampling event, 8.8 mm of rain was recorded at the nearest weather station (086361), located in the north-west portion of the Site. In the month of November 2023, the total amount of rainfall recorded was 32.6 mm, which was lower than the monthly average rainfall in November between 2019 and 2022 of 75.6 mm¹.

The following on-site activities with the potential to impact sample collection or the results were noted:

- > Ongoing redevelopment / construction works were proceeding on-site, which have the potential to impact results adjacent to these works, especially for surface water locations which may receive construction related water discharge that would not normally be present.

4.2 Groundwater

4.2.1 Summary of Field Observations

4.2.1.1 Water Quality Parameter Field Measurements

Stabilised groundwater water quality parameter field measurements, water colour and turbidity observations recorded during the groundwater sampling program are presented in field sampling record sheets, included in Appendix D. Groundwater colour varied from clear to cloudy to brown with rare cases of green black and black, though was generally low to medium turbidity, consistent with previous sampling. Water quality parameter field measurements were generally consistent with the previous monitoring events.

4.2.1.2 Groundwater Elevation and Migration

Groundwater elevations were observed to be generally consistent with the previous event. Groundwater contours suggest groundwater flow to be flowing south-east towards South Creek and Hanns Inlet, consistent with previous investigations. Groundwater elevation contours and flow directions for December 2023 are shown in Figure 2, Appendix A. Gauging records are presented in Appendix D.

4.2.2 Groundwater Laboratory Results

The results of laboratory analysis have been compared against adopted assessment criteria, and are presented in Table B1, Appendix B, and summarised in Table 4-1. Of the 50 samples that were analysed, PFOS was reported above adopted criteria in 31 samples, PFOA in 4 samples, and PFOS+PFHxS in 27 samples. The laboratory reports are provided in Appendix C.

¹ Climate statistics for Australian locations – summary statistics Cerberus
http://www.bom.gov.au/climate/averages/tables/cw_086361.shtml, last accessed 31 January 2024.

Table 4-1 Summary of Groundwater Results Exceeding Adopted Criteria

Analytes	Locations Exceeding Criteria	Lowest Criteria (µg/L)	Max Conc. (µg/L) ⁴	No. Analytical Results >LOR	No. Results Above Criteria	Significant Concentration Changes ³
PFOS	MW017, MW018, MW025, MW028, MW029, MW030, MW033, MW041, MW046, MW047, MW051, MW061, MW062, MW064, MW067, MW068, MW070, MW071, MW074, MW075, MW102, MW109, MW110, MW121, MW122S, MW212, MW213, MW214D, MW215D, MW215S, MW217D	0.00023 ²	36.3	31	31	None
PFOA	MW067, MW212, MW213, MW215S	0.56 ¹	2.51	22	4	None
PFOS+PFHxS	MW017, MW018, MW025, MW028, MW041, MW047, MW051, MW054, MW061, MW062, MW064, MW067, MW068, MW070, MW071, MW074, MW075, MW102, MW109, MW110, MW121, MW122S, MW212, MW213, MW214D, MW215D, MW215S	0.07 ¹	84.5	35	27	MW019, MW069 (decrease)
Note: 1. Drinking water assessment criteria. 2. Ecological assessment criteria. 3. Significant change defined as an order of magnitude increase or decrease from the previous monitoring round. 4. Historical and current concentrations presented in Appendix B.						

Results have also been compared to available historical data. Two locations reported order of magnitude change in concentration for this monitoring event.

- > MW069 and MW019: PFOS+PFHxS concentrations have decreased by one order of magnitude from the previous event in May 2023.

Findings are summarised as follows:

- > No groundwater sampling locations reported a first-time detection of PFOS, PFOA or PFOS+PFHxS.
- > No groundwater sampling locations reported a new exceedance of the lowest adopted criteria for PFOS, PFOA or PFOS+PFHxS.

All other concentrations reported during this event were generally consistent with previous sampling events.

4.3 Surface Water

4.3.1 Summary of Field Observations

4.3.1.1 Water Quality Parameter Field Measurements

Stabilised surface water quality parameter field measurements, water colour and turbidity observations recorded during the surface water sampling program are presented in field sampling record sheets, included in Appendix D. Surface water colour varied from clear to cloudy or brown and was generally observed to have low to medium turbidity, consistent with previous sampling. Water quality parameter field measurements were generally consistent with the previous monitoring events.

4.3.1.2 Surface Water Flow

Surface water flow was measured at 28 locations and flow ranged from no flow to high flow. Flow measurements were generally consistent with previous monitoring rounds as summarised in Table D1, Appendix D.

4.3.2 Laboratory Results

The results of laboratory analysis have been compared against adopted assessment criteria, presented in Table B2, Appendix B, and summarised in Table 4-2 below. Of the 28 samples that were tested, PFOS was reported above adopted criteria in 22 samples, PFOA in four samples, and PFOS+PFHxS in 16 samples. The laboratory reports are provided in Appendix C.

Table 4-2 Summary of Surface Water Results Exceeding Adopted Criteria

Analytes	Locations Exceeding Criteria	Lowest Criteria (µg/L)	Max Conc. (µg/L) ⁴	No. Analytical Results >LOR	No. Results Above Criteria ^{1,2}	Significant Concentration Changes ³
PFOS	SW001, SW004, SW005, SW010, SW014, SW015, SW016, SW017, SW018, SW019, SW020, SW021, SW023, SW027, SW028, SW029, SW057, SW073, SW074, SW075, SW077, SW078	0.00023 ²	7.56	22	22	SW005, SW010 (increase)
PFOA	SW014, SW015, SW016, SW057	0.56 ¹	0.96	7	4	None
PFOS+PFHxS	SW004, SW005, SW010, SW014, SW015, SW016, SW017, SW018, SW021, SW027, SW028, SW029, SW057, SW074, SW075, SW077	0.07 ¹	10.1	22	16	SW005, SW010, SW018 (increase)
Note: 1. Drinking water assessment criteria. 2. Ecological assessment criteria 3. Significant change defined as an order of magnitude increase or decrease from the previous monitoring round. 4. Historical and current concentrations presented in Appendix B.						

Results have also been compared to available historical data. The following locations reported a significant change in concentration for this monitoring event:

- SW005 and SW010: PFOS and PFOS+PFHxS concentrations have increased by one order of magnitude from the previous event in May 2023.
- SW018: PFOS+PFHxS concentration has increased by one order of magnitude from the previous event in May 2023.

Findings are summarised as follows:

- > No surface water sampling locations reported a first-time detection of PFOS, PFOA or PFOS+PFHxS.
- > No surface water sampling locations reported a new exceedance of the lowest adopted criteria for PFOS, PFOA or PFOS+PFHxS.

All other concentrations reported during this event were generally consistent with previous sampling events.

4.4 Changes to the Monitoring Network Condition

- > Monitoring wells MW066, MW103, MW104 and MW111 are presumed to be destroyed as a result of ongoing works at the Site as these wells could not be located within construction areas during the previous sampling event and this E9 sampling event.

4.5 Data Validation

The data validation process has concluded that there are no significant systematic errors in the data collection process. Therefore, the data set used as the basis for the surface water and groundwater assessment is considered valid and complete. A detailed Data Quality Review is included in Appendix E.

5 Summary and Conclusions

Cardno conducted the November/December 2023 biannual groundwater and surface water monitoring event at HMAS Cerberus as part of the PFAS OMP. Groundwater and surface water sampling and testing were undertaken at 50 groundwater monitoring locations and 28 surface water locations.

Groundwater levels were gauged at all wells before sampling, to the extent practicable. Selected locations were unable to be gauged and/or sampled for various reasons, as detailed below in Table 5-1. Regional groundwater flow was interpreted to be in a south-easterly direction towards Hanns Inlet, consistent with previous monitoring events.

Table 5-1 Summary of Results

Activity	Details
Deviations from OMP SAQP	> Four groundwater wells were not sampled as the locations were dry and/or not found and are presumed to be destroyed during construction work at the Site. > Two groundwater wells were not gauged as the locations were not found and are presumed to be destroyed during construction work at the Site. > Seven groundwater wells were not gauged during the initial gauging round due to weather conditions. > Five surface water locations were not sampled as the locations were dry and/or unable to sample due to pipe clogage.
Groundwater Analytical Results	> 50 groundwater samples were collected in total. > No groundwater sampling locations reported a first-time detection of PFOS, PFOA or PFOS+PFHxS. > No groundwater sampling locations reported a new exceedance of the lowest adopted criteria for PFOS, PFOA or PFOS+PFHxS. > Two groundwater wells reported an order of magnitude decrease for PFOS+PFHxS. > All other concentrations reported during this event were generally consistent with previous monitoring events.
Surface Water Analytical Results	> 28 surface water samples were collected in total. > Two surface water locations reported an order of magnitude increase for PFOS and PFOS+PFHxS compared to the previous event in May 2023. > One surface water location reported an order of magnitude increase for PFOS+PFHxS compared to the previous event in May 2023. > No surface water sampling locations reported a first-time detection of PFOS, PFOA or PFOS+PFHxS. > No surface water sampling locations reported a new exceedance of the lowest adopted criteria for PFOS, PFOA or PFOS+PFHxS. > All other concentrations reported during this event were generally consistent with previous monitoring events.
Next Scheduled Monitoring Event	> The next OMP monitoring event is scheduled for May 2024. > Undertake the recommended actions for the next OMP monitoring event outlined in Table 2-3.

	> SAQP to be reviewed and updated as required prior to the next monitoring event.
--	---

6 References

General References

1. Australian and New Zealand Guidelines, 2018, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* ANZG, 2018.
2. Department of Defence, 2021, *Contamination Management Manual (DCMM), Annex L – Data Management*, August 2019, Amended June 2021.
3. Defence, 2021a, *Defence OMP Factual Report Guidance, Version 0.2*, Revised May 2021.
4. The Heads of EPAs Australia and New Zealand (HEPA), 2020, *PFAS National Environmental Management Plan (NEMP) Version 2.0*, January 2020.
5. National Environment Protection Council (NEPC), 1999, *National Environmental Protection (Assessment of Site Contamination) Measure (as amended)*, registered May 2013.
6. National Health and Medical Research Council, 2011, *National Water Quality Management Strategy Australian Drinking Water Guidelines 6*, Amended August 2018.
7. National Health and Medical Research Council (NHMRC), 2019, *Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water*, August 2019.
8. Standards Australia/Standards New Zealand, 1998, AS5667.1:1998 'Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples'.
9. Standards Australia, 1999, AS4482.2-1999 *Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 – Non-volatile and semi-volatile compounds* (withdrawn as pending revision, referred to for 'state of knowledge').
10. U.S. Environmental Protection Agency (USEPA), 2006, 'Guidance for the Data Quality Objectives Process (EPA QA/G-4)'.
11. USEPA, 2002, Reference: EPA/240/R-02/004, 'Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)', November 2022.

Site Specific References

12. Cardno, 2024, *PFAS Ongoing Monitoring Plan Sampling and Analysis Quality Plan (SAQP), HMAS Cerberus, Rev 9*, 23 January 2024.

APPENDIX

A

FIGURES



Legend

- Site Area
- Management Area / Investigation Area
- Ramsar Wetland Boundary

FIGURE 1
1:40,000 Scale at A3



Site Locality Plan

ANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



Cardno now **Stantec**

Map Produced by Cardno now Stantec
Date: 2024-01-19 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-001-SiteLocalityPlan_Cerberus.mxd 04
Aerial Imagery Supplied by Metromap (November, 2023)

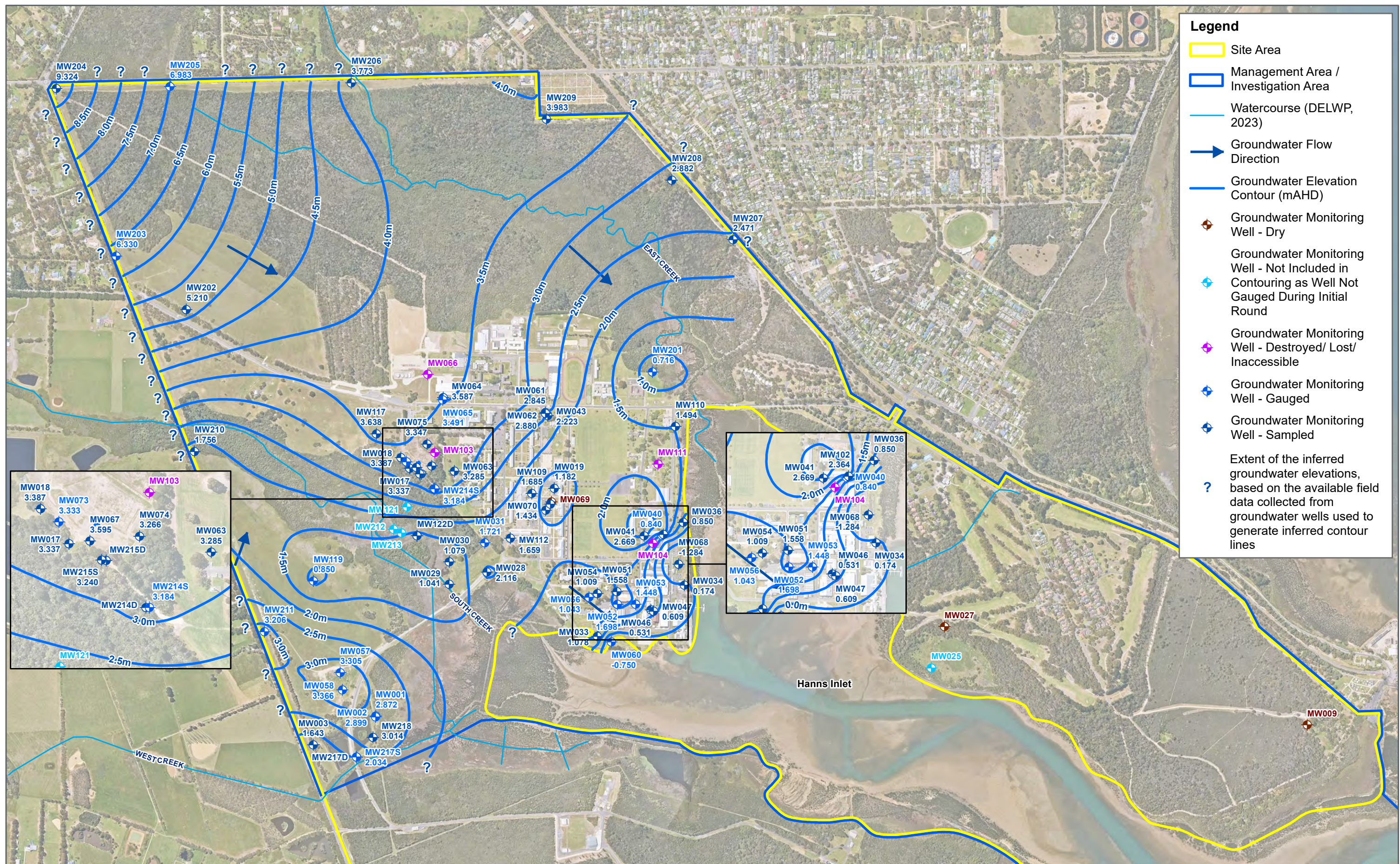


FIGURE 2
1:13,000 Scale at A3

Metres
0 250 500

Groundwater Elevation Contours – Regional Aquifer (December, 2023)

ANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



Cardno now Stantec

Map Produced by Cardno now Stantec
Date: 2024-02-28 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-0403-GWContoursRA_Cerberus_E9.mxd 03
Aerial Imagery Supplied by Metromap (November, 2023)

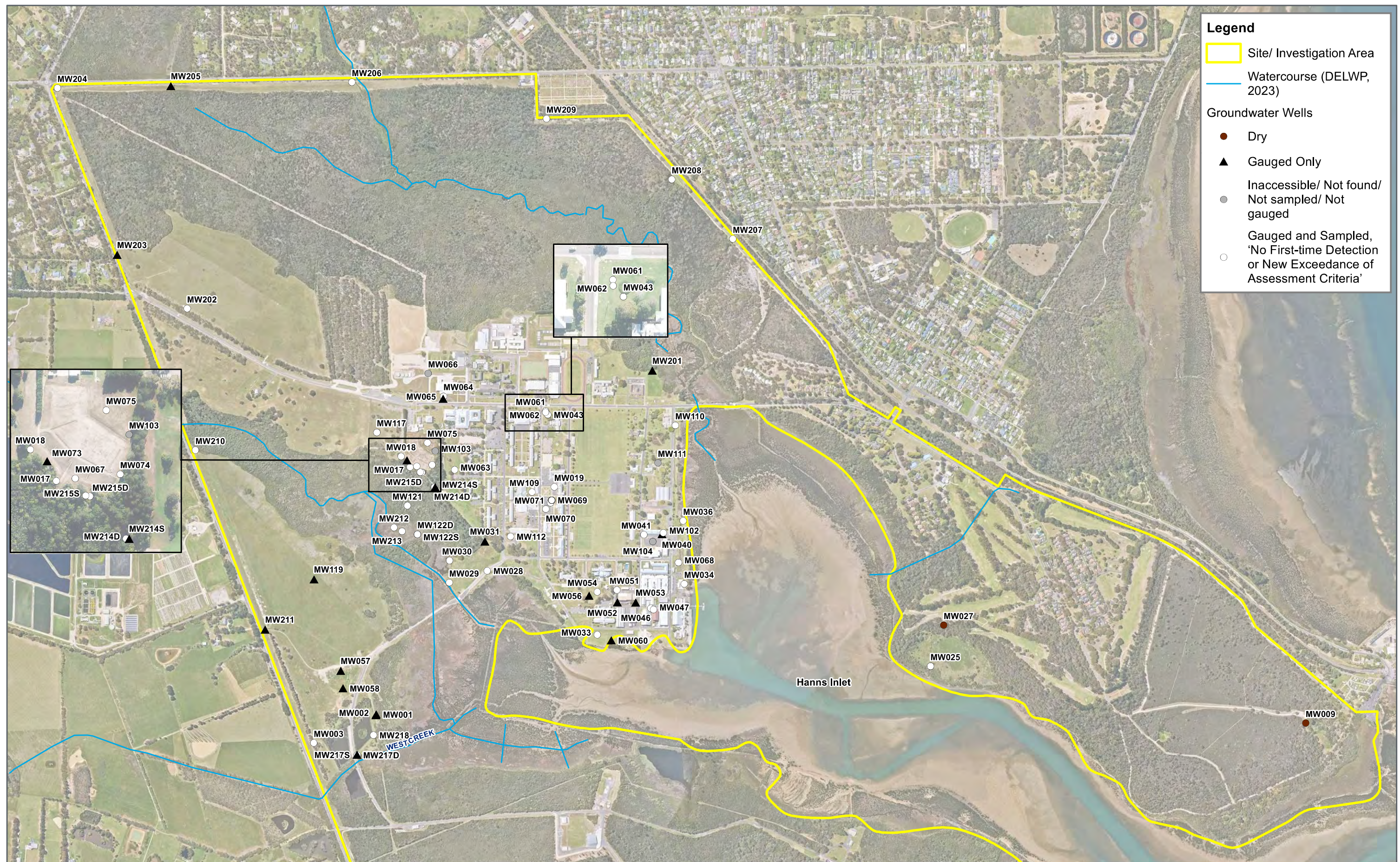


FIGURE 3
1:13,000 Scale at A3

Metres
0 250 500

Groundwater Concentration Notification (December, 2023)

BIANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE

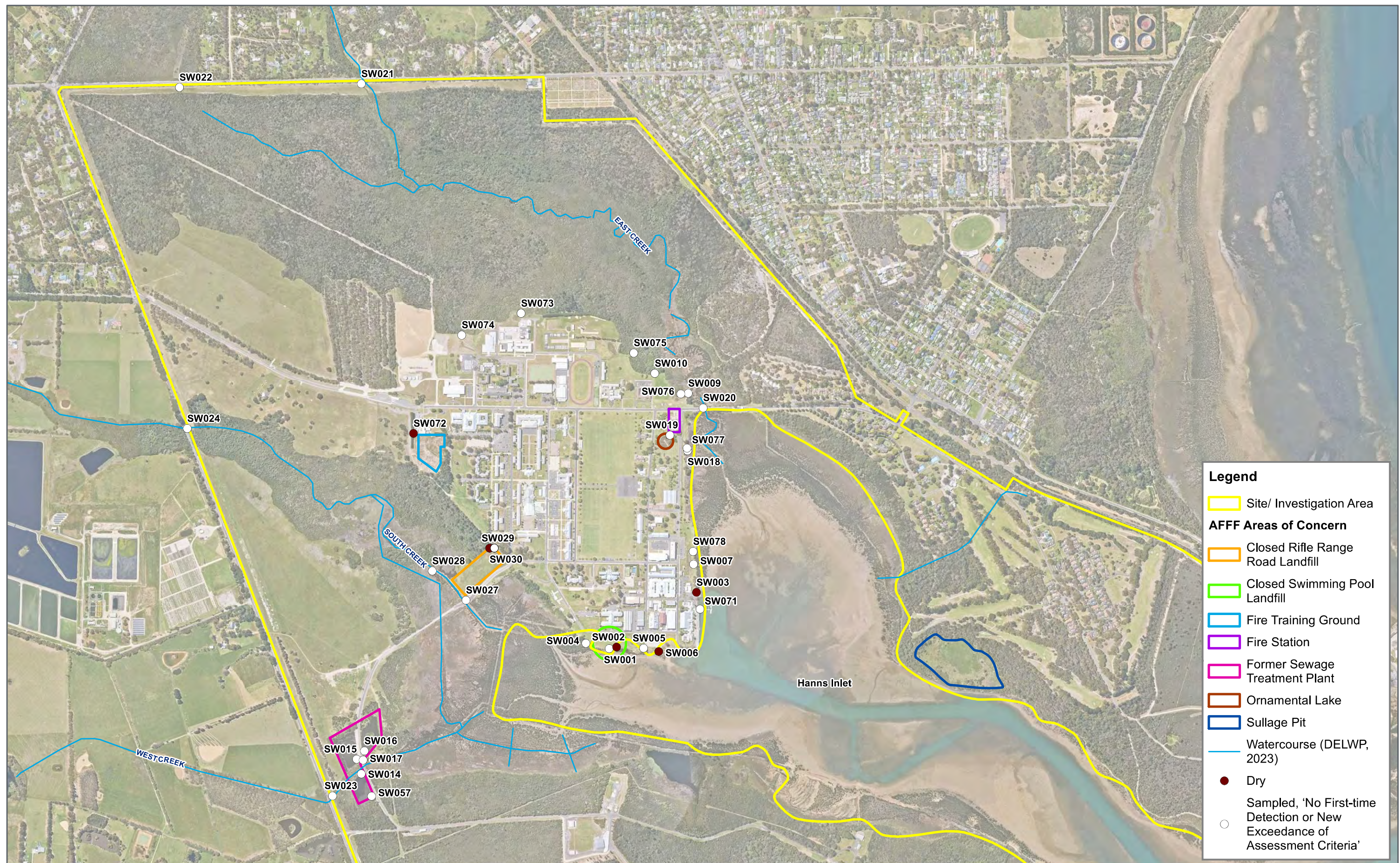


FIGURE 4
1:13,000 Scale at A3

Metres
0 250 500

Surface Water Concentration Notification (December, 2023)

BIANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



Cardno now Stantec

Map Produced by Cardno now Stantec
Date: 2024-01-19 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-0405-SWConcNotification_Cerberus_E9.mxd 01
Aerial Imagery Supplied by Metromap (November, 2023)

APPENDIX

B

DATA ASSESSMENT TABLES

	Perfluorocarbons															
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
LOR	0.0001	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	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07													
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19														

Location Code	Date	Field ID	Sample Type	Lab Report Number															
MW003	29 Mar 2018	MW003_HS_180329	Normal	591914	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
	15 Nov 2019	0066_MW003_191115	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_MW003_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW003_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW003_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW003_211130	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW003_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW003_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW003_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
MW017	06 Dec 2023	0066_MW003_231206	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02
	09 May 2016	0066_GW08-VT0067_201605	Normal		7.88	0.202	19.18	3.59		11.3		<0.005	<0.1	<0.02	1.98	0.071	0.002	<0.002	<0.005
	31 May 2016	0066-VT0067_GW08	Normal	502716	0.05	0.27	2.95	1.2		2.9		<0.01	0.14	0.33	1.7	0.24	<0.01	<0.01	<0.01
	05 Apr 2017	0066_GW08-VT0067_201704	Normal		4.29	0.42	23.9	1.94		19.6		<0.005	<0.1000	0.4	1.77	0.32	<0.002	<0.002	<0.005
	20 Oct 2017	GW08-VT0067_201017	Normal	568935	1.5	0.35	9.6	2.7	1.6	8.1	<0.2	<0.2	0.83	1.3	2.8	<0.01	<0.2	<0.2	<0.2
	06 Dec 2017	GW08-VT0067_061217	Normal	577093	4.5	0.6	25.5	1.9	2	21	0.32	<0.001	0.42	0.56	2.8	0.56	0.008	0.002	0.003
	04 Apr 2018	GW08-VT0067_HS_180404	Normal	592478	3.3	0.31	16.3	1.7	1.8	13	0.3	<0.01	0.27	0.47	2.1	0.33	<0.01	<0.01	<0.01
	19 Nov 2019	0066_GW08-VT0067_191119	Normal	EM1919718	1.08	0.32	23.6	1.95	2.66	22.5	0.30	<0.02	0.3	0.62	2.55	0.46	<0.02	<0.02	<0.02
	20 May 2020	0066_MW017_200520	Normal	EM2008583	1.02	0.40	42.0	2.27	4.65	41.0	0.50	<0.02	0.4	0.80	3.19	0.73	<0.02	<0.02	<0.02
		0066_QC101_200520	Field_D	EM2008583	1.04	0.39	25.0	2.30	4.32	24.0	0.46	<0.02	0.4	0.78	3.32	0.76	<0.02	<0.02	<0.02
		0066_QC201_200520	Interlab_D	721332	0.85	0.32	17.85	1.6	2.3	17	0.70	<0.01	0.31	0.48	2.1	0.49	<0.01	<0.01	<0.01
	25 Nov 2020	0066_MW017_201125	Normal	EM2021043	3.53	0.12	8.92	0.31	0.31	5.39	0.15	<0.02	<0.1	0.14	0.36	0.08	<0.02	<0.02	<0.02
		0066_QC101_201125	Field_D	EM2021043	3.28	0.12	8.71	0.31	0.30	5.43	0.13	<0.02	<0.1	0.13	0.41	0.08	<0.02	<0.02	<0.02
		0066_QC201_201125	Interlab_D	760007	2.3	0.16	7.3	0.36	0.55	5.0	0.17	<0.01	0.11	0.18	0.49	0.10	<0.01	<0.01	<0.01
	30 Jun 2021	0066_MW017_210630	Normal	EM2112638	3.06	0.30	19.9	0.77	0.56	16.8	0.23	<0.02	0.3	0.41	0.96	0.24	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW017_211130	Normal	EM2124215	1.14	0.45	14.8	0.91	1.34	13.7	0.46	<0.02	0.3	0.39	1.05	0.23	<0.02	<0.02	<0.02
	03 May 2022	0066_MW017_220503	Normal	EM2208151	3.86	0.25	13.9	0.73	1.15	10.0	0.35	<0.02	0.3	0.46	1.06	0.20	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW017_221116	Normal	EM2223006	2.90	0.11	6.88	0.20	0.23	3.98	0.12	<0.02	<0.1	0.08	0.23	0.06	<0.02	<0.02	<0.02
	24 May 2023	0066_MW017_230524	Normal	EM2309599	1.69	0.41	13.5	0.61	0.61	11.8	0.22	<0.02	0.2	0.25	0.89	0.15	<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW017_231206	Normal	EM2321752	1.89	0.44	13.2	0.44	0.73	11.3	0.36	<0.02	0.1	0.22	0.62	0.14	<0.02	<0.02	<0.02
MW018	09 May 2016	0066_GW09-VT0067_201605	Normal		<0.002	<0.002	0.022	0.004		0.022		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005
	31 May 2016	0066-VT0067_GW09	Normal	502716	0.04	<0.01	0.05	<0.01		0.01		<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066-VT0067_QC102	Field_D	502716	<0.01	<0.01		<0.01		0.02		<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	06 Dec 2017	GW09-VT0067_061217	Normal	577093	0.003	<0.001	0.033	0.008	0.006	0.03	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
		QC102_061217	Field_D	577093	0.006	<0.001	0.038	0.008	0.006	0.032	<0.001	<0.001	<0.005	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
	04 Apr 2018	GW09-VT0067_HS_180404	Normal	592478	0.002	<0.001	0.029	0.009	0.006	0.027	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	21 May 2020	0066_MW018_200521	Normal	EM2008583	0.02	<0.01	0.09	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW018_201125	Normal	EM2021043	0.01	<0.01	0.05	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW018_210630	Normal	EM2112638	0.02	<0.01	0.09	0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW018_211130	Normal	EM2124215	0.02	<0.01	0.08	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_MW018_220504	Normal	EM2208151	0.05	<0.01	0.16	<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_MW018_230524	Normal	EM2309599	<0.01	<0.01	0.08	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW018_231206	Normal	EM2321752	0.01	<0.01	0.09	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW019	21 May 2016	0066_GW01-VT0191_201605	Normal		0.003	<0.002	0.069	0.122		0.066		<0.005	<0.1	<0.02	0.032	0.002	<0.002	<0.002	<0.005	<0.005	
	06 Dec 2017	GW01-VT0191_071217	Normal	577093	0.004	0.041	0.144	0.042	0.052	0.14	0.003	<0.001	0.017	0.02	0.077	0.028	<0.001	<0.001	<0.001	<0.001	
	21 Nov 2019	0066_GW01-VT0191_191121	Normal	EM1919885	<0.01	0.07	0.23	0.04	0.04	0.23	<0.02	<0.02	<0.1	0.02	0.08	0.04	<0.02	<0.02	<0.02	<0.02	
		0066_QC105_191121	Field_D	EM1919885	<0.01	0.06	0.23	0.04	0.04	0.23	<0.02	<0.02	<0.1	<0.02	0.08	0.04	<0.02	<0.02	<0.02	<0.02	
		0066_QC205_191121	Interlab_D	689708	<0.01	0.07	0.21	0.04	0.05	0.21	<0.01	<0.01	<0.05	0.02	0.08	0.05	<0.01	<0.01	<0.01	<0.01	
	21 May 2020	0066_MW019_200521	Normal	EM2008583	0.01	0.17	0.46	0.03	0.02	0.45	<0.02	<0.02	<0.1	0.03	0.06	0.05	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW019_201126	Normal	EM2021043	0.03	0.05	0.19	0.08	<0.02	0.16	<0.02	<0.02	<0.1	0.05	0.08	0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW019_210630	Normal	EM2112638	0.01	0.04	0.18	0.03	0.02	0.17	<0.02	<0.02	<0.1	0.05	0.07	0.02	<0.02	<0.02	<0.02	<0.02	
	02 Dec 2021	0066_MW019_211202	Normal	EM2124215	0.07	<0.01	0.18	<0.02	0.03	0.11	<0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 May 2022	0066_MW019_220505	Normal	EM2208151	0.01	0.03	0.13	0.02	0.03	0.12	<0.02	<0.02	<0.1	0.04	0.06	0.02	<0.02	<0.02	<0.02	<0.02	
	26 May 2023	0066_MW019_230526	Normal	EM2309599	0.02	0.04	0.14	0.02	0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW019_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW025	30 May 2018	0066_GW02-VT0363_180530	Normal	601156	3.3	0.065	4.14	0.03	0.056	0.84	0.12	<0.001	0.016	0.032	0.14	0.02	0.003	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_GW02-VT0363_191120	Normal	EM1919885	0.76	0.05	1.54	<0.05	<0.05	0.78	<0.05	<0.05	<0.2	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	
	20 May 2020	0066_MW025_200520	Normal	EM2008583	1.62	0.05	2.36	0.06	0.02	0.74	0.08	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW025_201125	Normal	EM2021043	1.48	0.06	2.07	0.07	<0.02	0.59	0.07	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW025_210629	Normal	EM2112638	1.21	0.05	1.94	0.07	<0.02	0.73	0.07	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW025_211130	Normal	EM2124215	1.82	0.05	2.47	0.10	0.03	0.65	0.07	<0.02	<0.1	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW025_220503	Normal	EM2208151	3.84	0.05	4.74	0.08	0.03	0.90	0.11	<0.02	<0.1	0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW025_230524	Normal	EM2309599	3.12	0.06	3.87	0.06	0.03	0.75	0.10	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	
06 Dec 2023	0066_MW025_231206	Normal	EM2321752	3.56	0.06	4.25	0.05	0.02	0.69	0.10	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02		
MW027	30 May 2018	0066_GW04-VT0363_180530	Normal	601156	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	25 Nov 2020	0066_MW027_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW028	30 May 2016	0066-VT0365 GW01	Normal	502716	0.02	0.04	0.39	0.09		0.37		<0.01	<0.05	0.01	0.08	0.02	<0.01	<0.01	<0.01	<0.01	
	05 Dec 2017	GW01-VT0365_051217	Normal	576131	0.49	0.082	2.19	0.1	0.13	1.7	0.054	<0.001	0.012	0.011	0.074	0.018	<0.001	<0.001	<0.001	<0.001	
	16 Feb 2018	GW01-VT0365_180216	Normal	585592	0.14	0.039	0.68	0.061	0.092	0.54	0.024	<0.001	0.007	0.008	0.053	0.011	<0.001	<0.001	<0.001	<0.001	
	15 Nov 2019	0066_GW01-VT0365_191115	Normal	EM1919512	0.48	0.11	2.57	0.24	0.30	2.09	0.06	<0.02	<0.1	0.13	0.34	0.04	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW028_200519	Normal	EM2008583	0.64	0.11	2.59	0.20	0.37	1.95	0.06	<0.02	<0.1	0.14	0.35	0.05	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW028_201126	Normal	EM2021043	0.38	0.07	1.65	0.18	0.12	1.27	0.04	<0.02	<0.1	0.18	0.28	0.03	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW028_210629	Normal	EM2112638	0.38	0.05	1.41	0.07	0.07	1.03	0.04	<0.02	<0.1	0.04	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW028_211130	Normal	EM2124215	0.34	0.07	1.64	0.15	0.15	1.30	0.05	<0.02	<0.1	0.15	0.25	0.04	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW028_220504	Normal	EM2208151	0.38	0.06	1.96	0.11	0.15	1.58	0.06	<0.02	<0.1	0.08	0.16	0.03	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW028_221115	Normal	EM2223006	0.32	0.06	1.72	0.15	0.15	1.40	0.04	<0.02	<0.1	0.15	0.24	0.04	<0.02	<0.02	<0.02	<0.02	
	26 May 2023	0066_MW028_230526	Normal	EM2309599	0.40	0.04	1.25	0.04	0.06	0.85	0.04	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC109_230526	Field_D	EM2309599	0.45	0.05	1.38	0.05	0.07	0.93	0.04	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC209_230526	Interlab_D	993983	0.65	0.06	1.75	0.06	0.10	1.1	0.05	<0.01	<0.05	0.03	0.08	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	04 Dec 2023	0066_MW028_231204	Normal	EM2321752	0.49	0.06	1.65	0.06	0.10	1.16	0.06	<0.02	<0.1	0.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC104_231204	Field_D	EM2321752	0.66	0.07	2.00	0.07	0.11	1.34	0.07	<0.02	<0.1	0.04	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		066_QC204_231204	Interlab_D	1051767	0.64	0.07	1.74	0.07	0.14	1.1	0.07	<0.01	<0.05	0.04	0.08	0.02	<0.01	<0.01	<0.01	<0.01	<0.01

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW029	30 May 2016	0066-VT0365 GW02	Normal	502716	<0.01	<0.01	0.02	<0.01		0.02		<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06 Dec 2017	GW02-VT0365_061217	Normal	577093	0.062	0.022	0.242	0.011	0.02	0.18	0.005	<0.001	0.007	0.004	0.014	0.004	<0.001	<0.001	<0.001	<0.001	
	16 Feb 2018	GW02-VT0365_180216	Normal	585592	0.036	0.007	0.135	0.006	0.009	0.099	0.002	<0.001	<0.005	0.001	0.006	0.002	<0.001	<0.001	<0.001	<0.001	
	14 Nov 2019	0066_GW02-VT0365_191114	Normal	EM1919512	0.07	<0.05	0.33	<0.05	<0.05	0.26	<0.05	<0.05	<0.2	0.06	0.08	<0.05	<0.05	<0.05	<0.05	0.06	
	19 May 2020	0066_MW029_200519	Normal	EM2008583	0.05	0.02	0.22	0.03	0.03	0.17	<0.02	<0.02	<0.1	0.05	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW029_201126	Normal	EM2021043	0.03	<0.01	0.13	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW029_210629	Normal	EM2112638	<0.01	<0.01	0.05	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW029_211130	Normal	EM2124215	0.03	0.01	0.15	0.03	<0.02	0.12	<0.02	<0.02	<0.1	0.08	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW029_220504	Normal	EM2208151	0.01	<0.01	0.07	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
	15 Nov 2022	0066_QC200_221115	Interlab_D	943130	0.04	0.01	0.13	0.01	<0.01	0.09	<0.01	<0.01	<0.05	0.05	0.06	0.01	<0.01	<0.01	<0.01	<0.01	
	16 Nov 2022	0066_MW029_221115	Normal	EM2223006	0.04	0.01	0.13	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC100_221115	Field_D	EM2223006	0.03	0.01	0.11	0.02	<0.02	0.08	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
29 May 2023	0066_MW029_230529	Normal	EM2309599	0.02	<0.01	0.06	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
05 Dec 2023	0066_MW029_231205	Normal	EM2321752	0.01	<0.01	0.05	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
MW030	30 May 2016	0066-VT0365 GW03	Normal	502716	0.01	<0.01	0.03	<0.01		0.02		<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06 Dec 2017	GW03-VT0365_061217	Normal	577093	0.11	0.007	0.202	0.006	0.01	0.092	0.003	<0.001	0.01	0.003	0.009	0.003	<0.001	<0.001	<0.001	<0.001	
	16 Feb 2018	GW03-VT0365_180216	Normal	585592	0.076	0.002	0.111	0.002	0.003	0.035	0.002	<0.001	<0.005	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_GW03-VT0365_191120	Normal	EM1919885	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW030_200519	Normal	EM2008583	0.07	<0.01	0.12	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW030_201126	Normal	EM2021043	0.05	<0.01	0.10	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW030_210628	Normal	EM2112638	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW030_211130	Normal	EM2124215	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW030_220504	Normal	EM2208151	0.06	<0.01	0.10	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW030_221115	Normal	EM2223006	0.06	<0.01	0.10	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 May 2023	0066_MW030_230529	Normal	EM2309599	0.05	<0.01	0.07	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_MW030_231205	Normal	EM2321752	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW033	19 May 2016	0066_GW02-VT0366_201605	Normal		0.028	<0.002	0.045	0.004		0.017		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	05 Dec 2017	GW02-VT0366_051217	Normal	576131	0.013	0.004	0.044	0.003	0.003	0.031	<0.001	<0.001	0.006	0.002	0.005	0.002	<0.001	<0.001	<0.001	<0.001	
	28 Mar 2018	GW02-VT0366_HS_180328	Normal	591827	0.013	0.005	0.036	0.004	0.003	0.023	<0.001	<0.001	0.006	0.003	0.005	0.003	<0.001	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_GW02_VT0366_191120	Normal	EM1919885	<0.01	0.01	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW033_200520	Normal	EM2008583	0.02	<0.01	0.06	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW033_201125	Normal	EM2021043	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW033_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW033_211201	Normal	EM2124215	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW033_220503	Normal	EM2208151	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW033_221115	Normal	EM2223006	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW033_230524	Normal	EM2309599	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW033_231204	Normal	EM2321752	0.01	<0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW034	19 May 2016	0066_GW01-VT0367_201605	Normal		<0.002	<0.002	0.003	<0.002		0.003		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005
	04 Dec 2017	GW01-VT0367_041217	Normal	576131	0.0016	<0.001	0.0256	0.003	0.002	0.024	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	
	14 Nov 2019	0066_GW01-VT0367_191114	Normal	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	
	19 May 2020	0066_MW034_200519	Normal	EM2008583	<0.01	<0.01	0.04	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW034_201125	Normal	EM2021043	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW034_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW034_211130	Normal	EM2124215	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW034_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW034_221115	Normal	EM2223006	<0.01	<0.01	0.01	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW034_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
04 Dec 2023	0066_MW034_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW036	10 May 2016	0066_GW03-VT0367_201605	Normal		<0.002	<0.002	0.015	0.006		0.015		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	04 Dec 2017	GW03-VT0367_041217	Normal	576131	0.0043	0.004	0.0753	0.014	0.016	0.071	<0.001	<0.001	<0.005	0.002	0.01	0.002	<0.001	<0.001	<0.001	<0.001	
	28 Mar 2018	GW03-VT0367_HS_180328	Normal	591827	0.005	0.003	0.044	0.014	0.015	0.039	<0.001	<0.001	<0.005	0.003	0.01	0.002	<0.001	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_GW03-VT0367_191120	Normal	EM1919885	<0.05	0.06	0.08	<0.05	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	19 May 2020	0066_MW036_200519	Normal	EM2008583	<0.01	<0.01	0.08	0.02	0.04	0.08	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW036_201125	Normal	EM2021043	<0.01	<0.01	0.07	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW036_210629	Normal	EM2112638	<0.01	<0.01	0.06	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW036_211130	Normal	EM2124215	<0.01	<0.01	0.07	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW036_220503	Normal	EM2208151	<0.01	<0.01	0.06	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW036_221115	Normal	EM2223006	<0.01	<0.01	0.05	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW036_230525	Normal	EM2309599	<0.01	<0.01	0.06	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW036_231204	Normal	EM2321752	<0.01	<0.01	0.04	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW041	09 May 2016	0066_GW02-VT0369_201605	Normal		0.016	0.002	0.248	0.019		0.232		<0.005	<0.1	<0.02	0.016	0.003	<0.002	<0.002	<0.005	<0.005	
	04 Dec 2017	GW02-VT0369_041217	Normal	576131	0.022	0.01	0.422	0.019	0.043	0.4	0.005	<0.001	0.018	0.018	0.046	0.009	<0.001	<0.001	<0.001	<0.001	
	28 Mar 2018	GW02-VT0369_HS_180328	Normal	591827	0.025	0.009	0.285	0.021	0.034	0.26	<0.001	<0.001	0.016	0.015	0.041	0.008	<0.001	<0.001	<0.001	<0.001	
	14 Nov 2019	0066_GW02-VT0369_191114	Normal	EM1919512	0.03	<0.01	0.34	<0.02	0.03	0.31	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW041_200519	Normal	EM2008583	0.04	0.02	0.42	<0.02	0.05	0.38	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW041_201126	Normal	EM2021043	0.02	<0.01	0.24	<0.02	<0.02	0.22	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW041_210629	Normal	EM2112638	<0.01	<0.01	0.22	<0.02	<0.02	0.22	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW041_211201	Normal	EM2124215	0.02	<0.01	0.21	<0.02	0.02	0.19	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 May 2022	0066_MW041_220505	Normal	EM2208151	0.02	<0.01	0.23	<0.02	<0.02	0.21	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW041_221117	Normal	EM2223006	0.02	0.01	0.28	<0.02	0.03	0.26	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW041_230525	Normal	EM2309599	0.02	0.01	0.33	<0.02	0.02	0.31	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW041_231204	Normal	EM2321752	0.02	0.01	0.32	<0.02	0.03	0.30	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC103_231204	Field_D	EM2321752	0.02	0.01	0.38	<0.02	0.04	0.36	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		066_QC203_231204	Interlab_D	1051767	0.03	0.01	0.29	0.01	0.03	0.26	<0.01	<0.01	<0.05	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

				Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.0001	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	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07													
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19														
MW043	30 May 2016	0066-VT0370 GW01	Normal				<0.01													
				502716	<0.01	<0.01		<0.01		<0.01		<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	01 Dec 2017	GW01-VT0370_011217	Normal	575567	0.002	0.001	0.007	<0.001	<0.001	0.005	<0.001	<0.001	<0.005	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
	20 Nov 2019	0066_GW01-VT0370_191120	Normal	EM1919885	<0.01	0.03	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW043_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_MW043_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW043_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_MW043_211202	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_MW043_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW043_221117	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW043_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW043_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW046	30 May 2016	0066-VT0382 GW01	Normal	502716	<0.01	0.01	<0.01	<0.01		<0.01		<0.01	<0.05	0.03	0.03	0.01	<0.01	<0.01	<0.01	<0.01
	04 Dec 2017	GW01-VT0371_041217	Normal	576131	0.033	0.011	0.079	0.006	0.007	0.046	0.002	<0.001	0.011	0.024	0.028	0.012	<0.001	<0.001	<0.001	<0.001
	14 Nov 2019	0066_GW01-VT0371_191114	Normal	EM1919512	0.04	0.02	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW046_200520	Normal	EM2008583	0.05	0.02	0.09	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC102_200520	Field_D	EM2008583	0.05	0.02	0.10	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC202_200520	Interlab_D	721332	0.03	0.01	0.07	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
	25 Nov 2020	0066_MW046_201125	Normal	EM2021043	0.04	0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW046_210630	Normal	EM2113696	0.02	0.01	0.05	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW046_211201	Normal	EM2124215	0.04	0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC108_211201	Field_D	EM2124215	0.04	0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC208_211201	Interlab_D	849156	0.04	0.01	0.07	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	0.03	0.03	0.01	<0.01	<0.01	<0.01	<0.01
	03 May 2022	0066_MW046_220503	Normal	EM2208151	0.04	0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	15 Nov 2022	0066_QC206_221115	Interlab_D	943130	0.06	0.01	0.09	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	17 Nov 2022	0066_MW046_221117	Normal	EM2223006	0.06	0.01	0.09	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC106_221117	Field_D	EM2223006	0.06	0.01	0.09	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_MW046_230524	Normal	EM2309599	0.04	0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW046_231204	Normal	EM2321752	0.04	<0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW047	04 Dec 2017	GW02-VT0371_041217	Normal	576131	0.12	0.023	0.46	0.036	0.036	0.34	0.008	<0.001	0.013	0.017	0.046	0.01	<0.001	<0.001	<0.001	<0.001
	28 Mar 2018	GW02-VT0371_HS_180328	Normal	591827	0.12	0.024	0.28	0.03	0.028	0.16	0.005	<0.001	0.012	0.014	0.038	0.009	<0.001	<0.001	<0.001	<0.001
	14 Nov 2019	0066_GW02-VT0371_191114	Normal	EM1919512	0.09	0.02	0.26	0.04	0.02	0.17	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW047_200520	Normal	EM2008583	0.13	0.03	0.30	0.04	0.02	0.17	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW047_201125	Normal	EM2021043	0.10	0.02	0.23	0.03	<0.02	0.13	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW047_210630	Normal	EM2113696	0.06	0.02	0.17	0.04	<0.02	0.11	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW047_211201	Normal	EM2124215	0.09	0.02	0.21	0.03	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW047_220503	Normal	EM2208151	0.14	0.02	0.29	<0.02	0.02	0.15	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW047_221117	Normal	EM2223006	0.08	0.02	0.17	0.03	<0.02	0.09	<0.02	<0.02	<0.1	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
	29 May 2023	0066_MW047_230529	Normal	EM2309599	0.09	0.02	0.17	0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW047_231204	Normal	EM2321752	0.10	0.02	0.20	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW051	10 May 2016	0066_GW01-VT0372_201605	Normal		0.152	0.005	0.213	0.005		0.061		<0.005	<0.1	<0.02	0.007	<0.002	<0.002	<0.002	<0.005	<0.005	
	06 Dec 2017	GW01-VT0372_061217	Normal	577093	0.23	0.012	0.287	0.008	0.01	0.057	0.005	<0.001	0.007	0.005	0.016	0.004	<0.001	<0.001	<0.001	<0.001	
	28 Mar 2018	GW01-VT0372_HS_180328	Normal	591827	0.21	0.01	0.265	0.006	0.007	0.055	0.003	<0.001	0.007	0.005	0.013	0.004	<0.001	<0.001	<0.001	<0.001	
	26 Nov 2020	0066_MW051_201126	Normal	EM2021043	0.58	0.08	1.11	0.04	0.04	0.53	0.02	<0.02	<0.1	<0.02	0.07	0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC104_201126	Field_D	EM2021043	0.48	0.08	0.94	0.04	0.04	0.46	0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC204_201126	Interlab_D	760007	0.58	0.09	1.07	0.04	0.05	0.49	0.02	<0.01	<0.05	0.02	0.09	0.02	<0.01	<0.01	<0.01	<0.01	
	30 Jun 2021	0066_MW051_210630	Normal	EM2112638	0.35	0.03	0.60	0.02	0.02	0.25	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW051_211201	Normal	EM2124215	0.13	0.02	0.24	<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW051_220503	Normal	EM2208151	0.16	0.02	0.34	0.02	0.03	0.18	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC103_220503	Field_D	EM2208151	0.18	0.02	0.34	0.02	0.02	0.16	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC203_220503	Interlab_D	886234	0.24	0.02	0.41	0.02	0.02	0.17	<0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	
	16 Nov 2022	0066_MW051_221115	Normal	EM2223006	0.08	<0.01	0.12	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023	0066_MW051_230525	Normal	EM2309599	0.06	<0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
04 Dec 2023	0066_MW051_231204	Normal	EM2321752	0.06	<0.01	0.10	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
MW054	24 May 2016	0066_GW01-VT0373_201605	Normal		<0.002	<0.002	<0.01	<0.002		<0.002		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	05 Dec 2017	GW01-VT0373_051217	Normal	576131	<0.0001	<0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	28 Mar 2018	GW01-VT0373_HS_180328	Normal	591827	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	<0.001	
	15 Nov 2019	0066_GW01-VT0373_191115	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW054_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW054_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	02 Jul 2021	0066_MW054_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	02 Dec 2021	0066_MW054_211202	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW054_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	15 Nov 2022	0066_QC202_221115	Interlab_D	943130	<0.01	<0.01	0.04	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	
	16 Nov 2022	0066_MW054_221115	Normal	EM2223006	<0.01	<0.01	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC102_221115	Field_D	EM2223006	<0.01	<0.01	0.04	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023	0066_MW054_230525	Normal	EM2309599	<0.01	<0.01	0.24	0.02	0.02	0.24	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
04 Dec 2023	0066_MW054_231204	Normal	EM2321752	<0.01	<0.01	0.25	<0.02	0.02	0.25	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
MW061	26 Nov 2020	0066_MW061_201126	Normal	EM2021043	0.10	0.03	0.43	<0.02	<0.02	0.33	<0.02	<0.02	<0.1	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW061_210630	Normal	EM2112638	0.08	0.03	0.37	0.02	0.03	0.29	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC104_210630	Field_D	EM2112638	0.08	0.03	0.39	0.03	0.03	0.31	<0.02	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Jul 2021	0066_QC204_210701	Interlab_D	807707	0.10	0.03	0.44	0.02	0.03	0.34	<0.01	<0.01	<0.05	0.03	0.05	0.01	<0.01	<0.01	<0.01	<0.01	
	02 Dec 2021	0066_MW061_211202	Normal	EM2124215	0.09	0.03	0.37	0.02	0.02	0.28	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW061_220503	Normal	EM2208151	0.05	0.02	0.41	0.02	0.03	0.36	<0.02	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	15 Nov 2022	0066_QC207_221115	Interlab_D	943130	0.06	0.02	0.34	0.02	0.02	0.28	<0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	
	17 Nov 2022	0066_MW061_221117	Normal	EM2223006	0.07	0.03	0.33	<0.02	0.02	0.26	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC107_221117	Field_D	EM2223006	0.06	0.02	0.34	0.02	0.02	0.28	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW061_230525	Normal	EM2309599	0.06	0.03	0.34	<0.02	0.02	0.28	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC106_230525	Field_D	EM2309599	0.06	0.02	0.29	0.02	0.02	0.23	<0.02	<0.02	<0.1	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW061_231204	Normal	EM2321752	0.06	0.02	0.30	<0.02	<0.02	0.24	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW062	26 Nov 2020	0066_MW062_201126	Normal	EM2021043	0.08	0.05	0.36	0.03	<0.02	0.28	<0.02	<0.02	<0.1	0.06	0.10	0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW062_210630	Normal	EM2112638	0.05	0.04	0.38	0.05	<0.02	0.33	<0.02	<0.02	<0.1	0.04	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	
	02 Dec 2021	0066_MW062_211202	Normal	EM2124215	0.06	0.04	0.35	0.03	0.03	0.29	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW062_220503	Normal	EM2208151	0.06	0.03	0.40	0.03	0.03	0.34	<0.02	<0.02	<0.1	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW062_221117	Normal	EM2223006	0.07	0.03	0.38	0.03	0.03	0.31	<0.02	<0.02	<0.1	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW062_230525	Normal	EM2309599	0.05	0.03	0.26	<0.02	0.02	0.21	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW062_231204	Normal	EM2321752	0.05	0.03	0.31	0.02	0.02	0.26	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC102_231204	Field_D	EM2321752	0.07	0.03	0.36	0.03	0.03	0.29	<0.02	<0.02	<0.1	<0.02	0.06	0.02	<0.02	<0.02	<0.02	<0.02	
066_QC202_231204		Interlab_D	1051767	0.05	0.04	0.25	0.02	0.02	0.20	<0.01	<0.01	<0.05	0.03	0.06	0.01	<0.01	<0.01	<0.01	<0.01		
MW063	27 Nov 2020	0066_MW063_201127	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW063_210628	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW063_211130	Normal	EM2124215	<0.01	<0.01	0.01	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW063_220504	Normal	EM2208151	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW063_221115	Normal	EM2223006	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW063_230524	Normal	EM2309599	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW063_231206	Normal	EM2321752	<0.01	<0.01	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW064	26 Nov 2020	0066_MW064_201126	Normal	EM2021043	2.05	0.04	2.59	0.05	0.04	0.54	0.04	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW064_210630	Normal	EM2112638	1.14	0.03	1.75	0.17	0.06	0.61	0.02	<0.02	<0.1	0.04	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW064_211201	Normal	EM2124215	1.34	0.03	1.70	0.37	0.08	0.36	0.02	<0.02	<0.1	0.05	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW064_220504	Normal	EM2208151	1.60	0.03	2.10	0.20	0.12	0.50	0.03	<0.02	<0.1	0.06	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW064_221115	Normal	EM2223006	0.88	0.02	0.97	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 May 2023	0066_MW064_230526	Normal	EM2309599	1.02	0.02	1.19	0.08	0.11	0.17	<0.02	<0.02	<0.1	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW064_231204	Normal	EM2321752	0.52	0.01	0.67	0.02	0.03	0.15	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC100_231204	Field_D	EM2321752	0.51	0.01	0.67	0.02	0.03	0.16	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
066_QC200_231204		Interlab_D	1051767	0.52	0.01	0.64	0.02	0.02	0.12	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01		

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW067	05 May 2022	0066_MW067_220505	Normal	EM2208151	2.58	1.53	41.5	2.79	4.43	38.9	0.76	<0.04	0.9	2.38	12.7	1.16	<0.04	<0.04	<0.04	<0.04	
	17 Nov 2022	0066_MW067_221117	Normal	EM2223006	3.03	2.26	65.8	2.66	5.94	62.8	0.62	<0.02	0.8	2.50	13.7	1.81	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW067_230524	Normal	EM2309599	7.89	2.37	66.9	2.38	6.28	59.0	1.00	<0.02	1.2	2.54	12.9	1.70	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW067_231206	Normal	EM2321752	4.09	2.06	66.6	2.32	5.02	62.5	0.87	<0.02	0.8	2.17	11.6	1.46	<0.02	<0.02	<0.02	<0.02	
MW068	05 May 2022	0066_MW068_220505	Normal	EM2208151	0.23	0.02	0.66	<0.02	0.03	0.43	<0.02	<0.02	<0.1	0.06	0.09	0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW068_221115	Normal	EM2223006	0.15	0.01	0.32	0.02	0.02	0.17	<0.02	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_QC108_230525	Field_D	EM2309599	0.23	0.02	0.49	<0.02	0.02	0.26	<0.02	<0.02	<0.1	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC208_230525	Interlab_D	993983	0.31	0.02	0.64	0.02	0.03	0.33	0.01	<0.01	<0.05	0.06	0.08	0.02	<0.01	<0.01	<0.01	<0.01	
	26 May 2023	0066_MW068_230526	Normal	EM2309599	0.26	0.02	0.57	0.03	0.02	0.31	<0.02	<0.02	<0.1	0.04	0.07	0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW068_231204	Normal	EM2321752	0.15	0.01	0.38	<0.02	0.02	0.23	<0.02	<0.02	<0.1	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	
MW069	03 May 2022	0066_MW069_220503	Normal	EM2208151	0.01	<0.01	0.16	0.34	0.08	0.15	<0.02	<0.02	<0.1	0.06	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW069_221115	Normal	EM2223006	0.04	<0.01	0.04	0.20	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW069_230525	Normal	EM2309599	<0.01	<0.01	0.10	0.28	0.09	0.10	<0.02	<0.02	<0.1	0.05	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW069_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW070	04 May 2022	0066_MW070_220504	Normal	EM2208151	0.06	0.05	3.66	0.16	0.24	3.60	<0.02	<0.02	<0.1	0.06	0.27	0.09	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW070_221115	Normal	EM2223006	0.02	0.07	5.43	0.16	0.23	5.41	<0.02	<0.02	<0.1	0.06	0.27	0.08	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW070_231204	Normal	EM2321752	0.01	0.08	4.28	0.09	0.24	4.27	<0.02	<0.02	<0.1	0.04	0.18	0.08	<0.02	<0.02	<0.02	<0.02	
MW071	03 May 2022	0066_MW071_220503	Normal	EM2208151	0.01	<0.01	0.28	0.09	0.12	0.27	<0.02	<0.02	<0.1	0.04	0.17	0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC101_220503	Field_D	EM2208151	<0.01	<0.01	0.25	0.11	0.11	0.25	<0.02	<0.02	<0.1	0.04	0.18	0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC201_220503	Interlab_D	886234	0.01	<0.01	0.28	0.12	0.12	0.27	<0.01	<0.01	<0.05	0.04	0.17	0.03	<0.01	<0.01	<0.01	<0.01	
	16 Nov 2022	0066_MW071_221115	Normal	EM2223006	<0.01	<0.01	0.47	0.22	0.18	0.47	<0.02	<0.02	<0.1	0.05	0.26	0.03	<0.02	<0.02	<0.02	<0.02	
	26 May 2023	0066_MW071_230526	Normal	EM2309599	<0.01	<0.01	0.47	0.14	0.15	0.47	<0.02	<0.02	<0.1	0.04	0.20	0.03	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW071_231206	Normal	EM2321752	0.01	<0.01	0.39	0.04	0.06	0.38	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	
MW074	24 May 2023	0066_MW074_230524	Normal	EM2309599	0.70	0.15	3.75	0.63	0.54	3.05	0.08	<0.02	<0.1	0.20	0.85	0.12	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW074_231206	Normal	EM2321752	0.57	0.15	3.84	0.68	0.66	3.27	0.09	<0.02	0.1	0.22	0.97	0.12	<0.02	<0.02	<0.02	<0.02	

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW075	24 May 2023	0066_MW075_230524	Normal	EM2309599	0.68	0.08	1.88	6.90	2.02	1.20	0.08	<0.02	1.1	2.34	7.30	0.14	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW075_231206	Normal	EM2321752	1.22	0.09	2.87	8.28	3.22	1.65	0.11	<0.02	1.6	2.85	9.69	0.23	<0.02	<0.02	<0.02	<0.02	
MW102	04 Dec 2017	MW102_041217	Normal	576131	0.26	0.013	0.55	0.015	0.019	0.29	0.01	<0.001	0.012	0.005	0.027	0.006	<0.001	<0.001	<0.001	<0.001	
	28 Mar 2018	MW102_HS_180328	Normal	591827	0.36	0.013	0.58	0.019	0.022	0.22	0.009	<0.001	0.01	0.006	0.028	0.005	<0.001	<0.001	<0.001	<0.001	
	14 Nov 2019	0066_MW102_191114	Normal	EM1919512	0.61	0.01	0.87	0.02	<0.02	0.26	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW102_200519	Normal	EM2008583	0.67	0.02	0.93	<0.02	0.02	0.26	0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW102_201125	Normal	EM2021043	0.93	0.02	1.13	<0.02	<0.02	0.20	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW102_210629	Normal	EM2112638	0.64	0.01	0.91	<0.02	<0.02	0.27	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC102_210629	Field_D	EM2112638	0.76	0.02	0.98	0.02	<0.02	0.22	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC202_210629	Interlab_D	807703	1.0	0.01	1.24	0.02	0.02	0.24	0.02	<0.01	<0.05	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	30 Nov 2021	0066_MW102_211130	Normal	EM2124215	0.56	0.01	0.71	0.02	<0.02	0.15	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC106_211130	Field_D	EM2124215	0.62	<0.01	0.80	0.03	<0.02	0.18	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC206_211130	Interlab_D	849156	0.67	0.01	0.84	0.02	0.01	0.17	0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	03 May 2022	0066_MW102_220503	Normal	EM2208151	0.52	0.01	0.76	0.03	0.02	0.24	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW102_221117	Normal	EM2223006	0.52	0.01	0.68	0.04	<0.02	0.16	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW102_230525	Normal	EM2309599	0.46	0.02	0.58	0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW102_231204	Normal	EM2321752	0.34	0.01	0.40	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW109	23 May 2016	0066_MW109_20160523	Normal		0.012	<0.002	0.015	0.004		0.003		<0.005	<0.1	<0.02	0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	05 Dec 2017	MW109_051217	Normal	576131	0.018	0.005	0.023	0.002	0.001	0.005	<0.001	<0.001	<0.005	<0.001	0.003	0.005	0.002	0.001	<0.001	<0.001	
	15 Nov 2019	0066_MW109_191115	Normal	EM1919512	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW109_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_MW109_201126	Normal	EM2021043	0.03	<0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW109_210630	Normal	EM2112638	0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_MW109_211202	Normal	EM2124215	0.03	0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 May 2022	0066_MW109_220505	Normal	EM2208151	0.04	0.03	0.12	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW109_221115	Normal	EM2223006	0.13	0.05	0.30	0.02	<0.02	0.17	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_MW109_230526	Normal	EM2309599	0.04	0.02	0.06	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW109_231204	Normal	EM2321752	0.06	0.02	0.10	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	MW110	24 May 2016	0066_MW110_20160524	Normal		0.004	<0.002	0.261	0.289		0.257		<0.005	<0.1	<0.02	0.258	0.012	<0.002	<0.002	<0.005	<0.005
04 Dec 2017		MW110_041217	Normal	576131	0.022	0.038	0.682	0.11	0.16	0.66	0.005	<0.001	0.034	0.041	0.25	0.053	<0.001	<0.001	<0.001	<0.001	
05 Apr 2018		MW110_HS_180405	Normal	592843	0.025	0.034	0.385	0.11	0.13	0.36	0.004	<0.001	0.029	0.032	0.22	0.033	<0.001	<0.001	<0.001	<0.001	
14 Nov 2019		0066_MW110_191114	Normal	EM1919512	<0.05	<0.05	0.68	0.23	0.22	0.68	<0.05	<0.05	<0.2	0.09	0.49	0.09	<0.05	<0.05	<0.05	0.08	
25 Nov 2020		0066_MW110_201125	Normal	EM2021043	0.02	0.04	0.64	0.20	0.15	0.62	<0.02	<0.02	<0.1	0.08	0.33	0.06	<0.02	<0.02	<0.02	<0.02	<0.02
29 Jun 2021		0066_MW110_210629	Normal	EM2112638	<0.01	0.04	0.67	0.17	0.12	0.67	<0.02	<0.02	<0.1	0.06	0.32	0.07	<0.02	<0.02	<0.02	<0.02	<0.02
30 Nov 2021		0066_MW110_211130	Normal	EM2124215	0.01	0.02	0.35	0.14	0.14	0.34	<0.02	<0.02	<0.1	0.04	0.22	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
05 May 2022		0066_MW110_220505	Normal	EM2208151	0.02	0.03	0.50	0.13	0.17	0.48	<0.02	<0.02	<0.1	0.04	0.25	0.05	<0.02	<0.02	<0.02	<0.02	<0.02
15 Nov 2022		0066_QC201_221115	Interlab_D	943130	0.02	0.03	0.48	0.11	0.14	0.46	<0.01	<0.01	0.05	0.05	0.26	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
16 Nov 2022		0066_MW110_221115	Normal	EM2223006	0.02	0.03	0.45	0.19	0.14	0.43	<0.02	<0.02	<0.1	0.05	0.26	0.05	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC101_221115	Field_D	EM2223006	0.01	0.03	0.44	0.21	0.14	0.43	<0.02	<0.02	<0.1	0.04	0.24	0.05	<0.02	<0.02	<0.02	<0.02	<0.02
25 May 2023		0066_MW110_230525	Normal	EM2309599	0.03	0.01	0.18	0.07	0.04	0.15	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC107_230525	Field_D	EM2309599	0.04	0.01	0.22	0.07	0.05	0.18	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC207_230525	Interlab_D	993983	0.05	0.01	0.21	0.04	0.04	0.16	<0.01	<0.01	<0.05	0.01	0.06	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
04 Dec 2023	0066_MW110_231204	Normal	EM2321752	0.02	0.04	0.50	0.14	0.15	0.48	<0.02	<0.02	<0.1									

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW111	24 May 2016	0066_MW111_20160524	Normal		0.002	<0.002	0.002	<0.002		<0.002		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	04 Dec 2017	MW111_041217	Normal	576131	0.0015	<0.001	0.0165	0.003	0.003	0.015	<0.001	<0.001	<0.005	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	
	05 Apr 2018	MW111_HS_180405	Normal	592843	0.003	<0.001	0.01	0.005	0.003	0.007	<0.001	<0.001	<0.005	0.004	0.004	<0.001	<0.001	0.004	<0.001	<0.001	
	14 Nov 2019	0066_MW111_191114	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW111_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW111_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW111_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW111_211130	Normal	EM2124215	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 May 2022	0066_MW111_220505	Normal	EM2208151	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW112	23 May 2016	0066_MW112_20160523	Normal		<0.002	<0.002	0.008	0.005		0.008		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	05 Dec 2017	MW112_051217	Normal	576131	0.0043	0.001	0.0083	0.001	<0.001	0.004	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	15 Nov 2019	0066_MW112_191115	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 Nov 2019	0066_MW112_191119	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW112_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW112_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW112_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW112_220504	Normal	EM2208151	0.01	<0.01	0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW112_221115	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW112_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW112_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW117	25 May 2016	0066_MW117_20160525	Normal		<0.002	<0.002	<0.01	<0.002		<0.002		<0.005	<0.1	<0.02	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	06 Dec 2017	MW117_061217	Normal	577093	0.003	<0.001	0.009	<0.001	<0.001	0.006	<0.001	<0.001	<0.005	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	
	04 Apr 2018	MW117_HS_180404	Normal	592478	0.001	<0.001	0.008	0.001	<0.001	0.007	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	19 Nov 2019	0066_MW117_191119	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW117_200520	Normal	EM2008583	0.01	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW117_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW117_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW117_211130	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC101_211130	Field_D	EM2124215	<0.01	<0.01	0.01	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC201_211130	Interlab_D	849156	<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	<0.01	
	04 May 2022	0066_MW117_220504	Normal	EM2208151	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW117_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW117_230524	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW117_231206	Normal	EM2321752	<0.01	<0.01	0.01	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW121	05 Apr 2017	0066_MW121_20170405	Normal		9.26	1.18	25.8	1.66		16.5		<0.005	<0.1000	0.63	2.86	0.46	<0.002	<0.002	<0.005	<0.005	
	04 Apr 2018	MW121_HS_180404	Normal	592478	37	0.87	42.1	0.42	0.67	5.1	0.68	0.15	0.55	1	2.8	0.5	0.067	0.036	0.014	0.014	
	20 Nov 2019	0066_MW121_191120	Normal	EM1919885	14.0	0.61	22.6	0.87	1.12	8.64	0.68	0.02	0.5	0.75	4.06	0.38	0.03	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW121_200520	Normal	EM2008583	13.8	0.52	18.2	0.42	0.60	4.43	0.57	0.06	0.3	0.56	1.92	0.31	0.03	<0.02	<0.02	<0.02	
		0066_QC103_200520	Field_D	EM2008583	13.7	0.48	18.7	0.40	0.52	4.98	0.48	0.05	0.3	0.51	1.75	0.28	0.03	<0.02	<0.02	<0.02	
		0066_QC203_200520	Interlab_D	721332	13	0.34	15.7	0.24	0.50	2.7	0.58	0.02	0.19	0.30	1.1	0.17	0.02	<0.01	<0.01	<0.01	
	25 Nov 2020	0066_MW121_201125	Normal	EM2021043	43.9	3.64	79.8	3.72	4.33	35.9	2.65	0.12	3.2	4.65	17.3	1.93	0.09	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW121_210629	Normal	EM2112638	41.5	4.56	96.2	5.37	6.04	54.7	2.92	<0.04	3.1	6.66	25.4	3.22	0.07	<0.04	<0.04	<0.04	
	02 Dec 2021	0066_MW121_211130	Normal	EM2124215	19.6	2.31	40.4	2.54	2.44	20.8	1.48	<0.04	1.8	3.04	9.13	1.41	0.04	<0.02	<0.02	<0.02	
		0066_QC100_211130	Field_D	EM2124215	22.9	2.38	48.2	2.60	3.42	25.3	2.71	0.05	1.8	3.45	10.8	1.55	0.05	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW121_220503	Normal	EM2208151	38.3	1.44	49.5	1.03	2.08	11.2	2.19	0.10	0.8	1.00	3.97	0.68	0.07	<0.02	<0.02	<0.02	
		0066_QC100_220503	Field_D	EM2208151	37.9	1.26	49.0	0.94	0.99	11.1	1.13	<0.04	0.6	1.09	3.70	0.60	0.07	<0.04	<0.04	<0.04	
		0066_QC200_220503	Interlab_D	886234	64	1.9	84	1.4	1.5	20	1.5	0.01	0.89	1.6	5.4	0.69	0.07	0.02	<0.01	<0.01	
17 Nov 2022	0066_MW121_221117	Normal	EM2223006	48.0	4.44	92.9	4.94	5.76	44.9	2.42	0.07	2.1	5.74	18.6	4.07	0.22	<0.04	<0.04	<0.04		
24 May 2023	0066_MW121_230524	Normal	EM2309599	17.4	0.73	24.7	0.70	0.95	7.29	0.61	0.13	0.4	0.78	2.94	0.45	0.04	<0.02	<0.02	<0.02		
04 Dec 2023	0066_MW121_231204	Normal	EM2321752	2.65	0.12	3.90	0.14	0.17	1.25	0.10	0.02	<0.1	0.13	0.46	0.08	<0.02	<0.02	<0.02	<0.02		
MW122D	05 Apr 2017	0066_MW122D_20170405	Normal		<0.002	<0.002	0.3	0.06		0.3		<0.005	<0.1000	<0.020000	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	
	04 Apr 2018	MW122D_HS_180404	Normal	592478	0.007	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_MW122D_191120	Normal	EM1919885	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW122_D_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW122D_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW122D_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW122D_211130	Normal	EM2124215	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW122D_220503	Normal	EM2208151	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW122D_221117	Normal	EM2223006	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW122D_230524	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW122D_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW122S	05 Apr 2017	0066_MW122S_20170405	Normal		<0.002	<0.002	1.02	0.1		1.02		<0.005	<0.1000	<0.020000	0.06	<0.002	<0.002	<0.002	<0.005	<0.005	
	04 Apr 2018	MW122S_HS_180404	Normal	592478	0.27	0.01	0.74	0.047	0.058	0.47	0.017	<0.001	0.009	0.008	0.04	0.005	<0.001	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_MW122S_191120	Normal	EM1919885	0.10	<0.05	0.66	<0.05	<0.05	0.56	<0.05	<0.05	<0.2	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	
	20 May 2020	0066_MW122_S_200520	Normal	EM2008583	0.36	<0.01	0.66	0.03	0.02	0.30	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW122S_201125	Normal	EM2021043	0.42	<0.01	0.78	0.04	0.02	0.36	<0.02	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW122S_210629	Normal	EM2112638	0.12	<0.01	0.18	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW122S_211201	Normal	EM2124215	0.10	<0.01	0.48	0.04	0.04	0.38	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW122S_220503	Normal	EM2208151	0.30	<0.01	0.54	0.02	0.02	0.24	<0.02	<0.02	<0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_MW122S_231205	Normal	EM2321752	0.26	0.02	0.80	0.15	0.10	0.54	<0.02	<0.02	<0.1	0.04	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	

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					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW207	17 Oct 2017	MW207_171017	Normal	568720	0.004	0.025	0.016	0.004	0.007	0.012	<0.001	<0.001	<0.005	<0.005	<0.005	0.006	<0.001	<0.001	<0.001	<0.001	
	07 Dec 2017	MW207_071217	Normal	577093	0.006	0.019	0.016	0.005	0.003	0.01	<0.001	<0.001	<0.005	0.004	0.005	0.004	<0.001	<0.001	<0.001	<0.001	
	04 Apr 2018	MW207_HS_180404	Normal	592478	0.005	0.015	0.013	0.004	0.003	0.008	<0.001	<0.001	<0.005	0.003	0.004	0.003	<0.001	<0.001	<0.001	<0.001	
	15 Nov 2019	0066_MW207_191115	Normal	EM1919512	0.02	0.01	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW207_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW207_201125	Normal	EM2021043	0.01	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW207_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC101_210629	Field_D	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC201_210629	Interlab_D	807703	<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	<0.01	
	01 Dec 2021	0066_MW207_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC107_211201	Field_D	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC207_211201	Interlab_D	849156	<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	<0.01	
	03 May 2022	0066_MW207_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
16 Nov 2022	0066_MW207_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
25 May 2023	0066_MW207_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
05 Dec 2023	0066_MW207_231205	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
MW208	19 Oct 2017	MW208_191017	Normal	568935	<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	<0.01	
	07 Dec 2017	MW208_071217	Normal	577093	<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	<0.001	
	15 Nov 2019	0066_MW208_191115	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW208_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW208_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW208_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW208_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW208_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC104_220503	Field_D	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC204_220503	Interlab_D	886234	<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	<0.01	
	16 Nov 2022	0066_MW208_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW208_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_MW208_231205	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
0066_QC108_231205		Field_D	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
066_QC208_231205		Interlab_D	1051767	<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	<0.01		
MW209	19 Oct 2017	MW209_191017	Normal	568935	<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	<0.01	
	07 Dec 2017	MW209_071217	Normal	577093	<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	<0.001	
	19 Nov 2019	0066_MW209_191119	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW209_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW209_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW209_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW209_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW209_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW209_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW209_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_MW209_231205	Normal	EM2321752	<0.01.																

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW210	20 Oct 2017	MW210_201017	Normal	568935	<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	<0.01	
	07 Dec 2017	MW210_071217	Normal	577093	<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	<0.001	
		QC104_071217	Field_D	577093	<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	<0.001	
	15 Nov 2019	0066_MW210_191115	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	18 May 2020	0066_MW210_200518	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW210_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_MW210_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW210_211130	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW210_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW210_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023	0066_MW210_230525	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
06 Dec 2023	0066_MW210_231206	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
MW212	03 Apr 2018	MW212_LF_180403	Normal	592478	47	0.96	58	1.1	1.5	11	1.2	0.013	0.28	0.59	1.5	0.3	0.024	<0.01	<0.01	<0.01	
	04 Apr 2018	MW212_HS_180404	Normal	592478	38	0.9	47.7	1.1	1.9	9.7	1.3	<0.01	0.32	0.61	1.6	0.31	0.021	<0.01	<0.01	<0.01	
	20 Nov 2019	0066_MW212_191120	Normal	EM1919885	20.4	0.98	33.9	0.68	1.05	13.5	1.22	<0.05	<0.2	0.28	1.51	0.27	<0.05	<0.05	<0.05	<0.05	
	20 May 2020	0066_MW212_200520	Normal	EM2008583	42.2	1.28	57.6	0.94	1.40	15.4	2.61	<0.02	0.2	0.44	1.74	0.41	0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW212_201125	Normal	EM2021043	28.6	0.92	37.7	0.54	0.79	9.13	1.62	<0.02	0.2	0.29	0.99	0.27	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW212_210629	Normal	EM2112638	36.8	0.99	46.2	0.52	0.73	9.36	1.60	<0.02	0.3	0.29	0.83	0.24	0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW212_211130	Normal	EM2124215	28.9	0.90	37.7	0.43	0.67	8.79	1.48	<0.02	<0.1	0.24	0.90	0.24	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW212_220503	Normal	EM2208151	33.7	0.76	41.3	0.44	0.98	7.61	2.11	<0.02	<0.1	0.18	0.72	0.21	0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW212_221117	Normal	EM2223006	29.1	0.82	37.3	0.42	0.65	8.19	1.34	<0.02	0.2	0.23	0.82	0.21	0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW212_230524	Normal	EM2309599	32.9	0.76	40.6	0.32	0.53	7.66	1.25	<0.02	<0.1	0.17	0.69	0.13	0.03	<0.02	<0.02	<0.02	
04 Dec 2023	0066_MW212_231204	Normal	EM2321752	27.5	0.69	34.5	0.35	0.61	7.02	1.04	<0.02	<0.1	0.19	0.71	0.17	<0.02	<0.02	<0.02	<0.02		
MW213	03 Apr 2018	MW213_LF_180403	Normal	592478	0.6	0.45	9.1	2.2	2.1	8.5	0.085	<0.01	0.41	0.81	3.4	0.46	<0.01	<0.01	<0.01	<0.01	
	04 Apr 2018	MW213_HS_180404	Normal	592478	0.63	0.49	10.03	2.2	2.3	9.4	0.098	<0.01	0.42	0.89	3.4	0.5	<0.01	<0.01	<0.01	<0.01	
	20 Nov 2019	0066_MW213_191120	Normal	EM1919885	0.28	0.59	14.3	1.92	1.82	14.0	0.12	<0.05	<0.2	0.54	3.74	0.46	<0.05	<0.05	<0.05	<0.05	
	20 May 2020	0066_MW213_200520	Normal	EM2008583	1.86	0.73	18.6	2.29	2.29	16.7	0.32	<0.02	0.4	0.84	3.53	0.63	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW213_201125	Normal	EM2021043	0.47	0.56	10.4	1.29	1.33	9.90	0.12	<0.02	0.5	0.55	1.96	0.43	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW213_210629	Normal	EM2112638	0.44	0.56	10.5	1.15	1.11	10.1	0.11	<0.02	0.2	0.50	1.61	0.36	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW213_211130	Normal	EM2124215	0.41	0.63	10.2	1.09	1.27	9.77	0.18	<0.02	0.2	0.41	1.64	0.37	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW213_220503	Normal	EM2208151	0.68	0.57	9.04	1.19	1.78	8.36	0.30	<0.02	0.2	0.35	1.53	0.35	<0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW213_221117	Normal	EM2223006	0.42	0.53	9.36	1.09	1.06	8.94	0.13	<0.02	0.2	0.38	1.45	0.32	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW213_230524	Normal	EM2309599	0.61	0.61	11.2	0.84	0.97	10.6	0.19	<0.02	0.2	0.29	1.33	0.20	<0.02	<0.02	<0.02	<0.02	
04 Dec 2023	0066_MW213_231204	Normal	EM2321752	0.63	0.75	11.6	1.00	1.25	11.0	0.22	<0.02	<0.1	0.31	1.36	0.31	<0.02	<0.02	<0.02	<0.02		

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.0001	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	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW214D	03 Apr 2018	MW214D_HS_180403	Normal	592478	4.8	0.15	6.9	0.25	0.36	2.1	0.16	<0.001	0.034	0.056	0.3	0.059	<0.001	<0.001	<0.001	<0.001	
		MW214D_LF_180403	Normal	592478	3.9	0.13	5.8	0.21	0.27	1.9	0.13	<0.001	0.028	0.045	0.27	0.048	<0.001	<0.001	<0.001	<0.001	
	20 Nov 2019	0066_MW214D_191120	Normal	EM1919885	5.49	0.32	12.1	0.55	0.73	6.57	0.32	<0.02	<0.1	0.08	0.86	0.11	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW214_D_200520	Normal	EM2008583	7.23	0.35	12.0	0.57	0.77	4.74	0.37	<0.02	<0.1	0.15	0.81	0.17	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW214D_201125	Normal	EM2021043	9.50	0.30	14.4	0.52	0.60	4.95	0.43	<0.02	<0.1	0.12	0.58	0.13	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW214D_210629	Normal	EM2112638	9.52	0.36	14.5	0.49	0.62	5.01	0.34	<0.02	0.1	0.12	0.67	0.14	<0.02	<0.02	<0.02	<0.02	
		0066_QC100_210629	Field_D	EM2112638	11.0	0.34	15.8	0.52	0.62	4.80	0.34	<0.02	<0.1	0.13	0.65	0.15	<0.02	<0.02	<0.02	<0.02	
		0066_QC200_210629	Interlab_D	807707	14	0.36	20	0.50	0.69	6.0	0.69	<0.01	0.08	0.13	0.63	0.14	<0.01	<0.01	<0.01	<0.01	
	30 Nov 2021	0066_MW214D_211130	Normal	EM2124215	7.76	0.33	12.5	0.46	0.61	4.71	0.34	<0.02	<0.1	0.11	0.61	0.13	<0.02	<0.02	<0.02	<0.02	
	05 May 2022	0066_MW214D_220503	Normal	EM2208151	8.72	0.33	14.0	0.53	0.65	5.27	0.37	<0.02	<0.1	0.15	0.55	0.14	<0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW214D_221117	Normal	EM2223006	0.26	0.01	0.43	0.04	<0.02	0.17	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW214D_230524	Normal	EM2309599	0.22	0.01	0.38	<0.02	<0.02	0.16	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW214D_231206	Normal	EM2321752	0.23	<0.01	0.31	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW215D	03 Apr 2018	MW215D_HS_180403	Normal	592478	3.1	0.26	8.5	0.66	0.99	5.4	0.25	<0.01	0.088	0.18	1	0.13	<0.01	<0.01	<0.01	<0.01	
		MW215D_LF_180403	Normal	592478	2	0.18	6.1	0.51	0.72	4.1	0.18	<0.001	0.058	0.12	0.65	0.094	<0.001	<0.001	<0.001	<0.001	
	19 Nov 2019	0066_MW215D_191119	Normal	EM1919885	0.65	0.11	4.37	0.35	0.54	3.72	0.11	<0.02	<0.1	0.06	0.49	0.06	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW215_D_200529	Normal	EM2008583	1.01	0.12	4.84	0.37	0.56	3.83	0.13	<0.02	<0.1	0.08	0.48	0.08	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW215D_201125	Normal	EM2021043	0.59	0.09	2.74	0.28	0.26	2.15	0.09	<0.02	<0.1	0.06	0.30	0.05	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW215D_210629	Normal	EM2112638	0.39	0.08	2.21	0.54	0.31	1.82	0.07	<0.02	<0.1	0.05	0.26	0.04	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW215D_211130	Normal	EM2124215	0.53	0.08	2.60	0.29	0.33	2.07	0.08	<0.02	<0.1	0.05	0.27	0.05	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW215D_220503	Normal	EM2208151	0.44	0.07	2.41	0.24	0.32	1.97	0.07	<0.02	<0.1	0.05	0.20	0.04	<0.02	<0.02	<0.02	<0.02	
		0066_QC102_220503	Field_D	EM2208151	0.49	0.07	2.38	0.28	0.29	1.89	0.07	<0.02	<0.1	0.04	0.22	0.05	<0.02	<0.02	<0.02	<0.02	
		0066_QC202_220503	Interlab_D	886234	0.65	0.08	3.75	0.26	0.36	3.1	0.06	<0.01	<0.05	0.04	0.24	0.05	<0.01	<0.01	<0.01	<0.01	
	16 Nov 2022	0066_MW215D_221116	Normal	EM2223006	0.58	0.09	2.82	0.28	0.39	2.24	0.08	<0.02	<0.1	0.05	0.30	0.05	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW215D_230524	Normal	EM2309599	0.51	0.09	2.74	0.28	0.37	2.23	0.08	<0.02	<0.1	0.04	0.30	0.03	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW215D_231206	Normal	EM2321752	0.49	0.09	2.82	0.29	0.38	2.33	0.09	<0.02	<0.1	0.05	0.32	0.06	<0.02	<0.02	<0.02	<0.02	
MW215S	04 Apr 2018	MW215S_HS_180404	Normal	592478	5.6	0.48	17.6	1.2	2	12	0.48	<0.01	0.15	0.34	1.9	0.25	<0.01	<0.01	<0.01	<0.01	
		MW215S_LF_180404	Normal	592478	6.4	0.61	20.4	1.4	2.4	14	0.57	<0.01	0.21	0.43	2.6	0.32	<0.01	<0.01	<0.01	<0.01	
		QC101_180404	Field_D	592478	5.8	0.59	18.8	1.4	2.1	13	0.54	<0.01	0.2	0.43	2.6	0.29	<0.01	<0.01	<0.01	<0.01	
		QC201_180404	Interlab_D	EM1805793	5.04	0.58	19.0	1.21	1.92	14.0	0.47	<0.02	<0.1	0.39	2.50	0.32	<0.02	<0.02	<0.02	<0.02	
	19 Nov 2019	0066_MW215S_191119	Normal	EM1919885	7.37	0.92	26.8	2.25	3.49	19.4	0.91	<0.02	0.3	0.66	5.34	0.43	<0.02	<0.02	<0.02	<0.02	
	20 Nov 2019	0066_MW215S_191120	Normal	EM1919885	7.96	0.89	24.8	1.94	3.15	16.8	0.90	<0.02	0.2	0.57	4.60	0.38	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW215_S_200520	Normal	EM2008583	5.89	0.80	19.4	1.91	4.18	13.5	1.22	<0.02	0.4	0.76	4.29	0.53	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW215S_201125	Normal	EM2021043	13.2	1.17	33.6	2.67	3.57	20.4	1.10	<0.02	0.6	1.14	3.98	0.67	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW215S_210629	Normal	EM2112638	12.9	1.43	37.9	3.15	4.16	25.0	1.65	<0.02	0.8	1.23	6.51	0.86	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW215S_211130	Normal	EM2124215	27.3	2.73	71.2	5.18	7.01	43.9	4.32	<0.02	1.0	2.15	10.6	1.66	<0.02	<0.02	<0.02	<0.02	
		0066_QC102_211130	Field_D	EM2124215	26.8	2.76	74.8	5.47	7.13	48.0	4.22	<0.02	1.2	2.39	10.3	1.76	<0.02	<0.02	<0.02	<0.02	
		0066_QC202_211130	Interlab_D	849156	29	2.6	68	5.6	6.6	39	2.4	<0.01	1.1	2.1	9.9	1.4	<0.01	<0.01	<0.01	<0.01	
	03 May 2022	0066_MW215S_220503	Normal	EM2208151	9.03	0.82	25.0	1.87	2.90	16.0	1.11	<0.02	0.3	0.58	3.05	0.43	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW215S_221116	Normal	EM2223006	29.0	2.92	80.1	7.10	10.1	51.1	2.40	<0.04	1.3	2.72	13.3	1.59	<0.04	<0.04	<0.04	<0.04	
	24 May 2023	0066_MW215S_230524	Normal	EM2309599	35.0	2.97	78.9	6.54	7.46	43.9	2.62	<0.02	1.7	2.58	13.9	1.48	<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW215S_231206	Normal	EM2321752	36.3	2.51	84.5	7.99	8.97	48.2	2.53	<0.02	1.0	2.83	14.2	1.76	<0.02	<0.02	<0.02	<0.02	

					Perfluorocarbons																
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.0001	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	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07														
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19															
MW217D	29 Mar 2018	MW217D_HS_180329	Normal	591914	0.034	0.002	0.047	0.004	0.003	0.013	<0.001	<0.001	<0.005	0.003	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	
		MW217D_LF_180329	Normal	591914	0.017	0.001	0.023	0.002	0.001	0.006	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	
		QC101_180329	Field_D	591914	0.019	0.001	0.025	0.002	0.002	0.006	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	
		QC201_180329	Interlab_D	EM1805570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	20 Nov 2019	0066_MW217_D_191120	Normal	EM1919885	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW217_D_200520	Normal	EM2008583	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW217D_201126	Normal	EM2021043	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	02 Jul 2021	0066_MW217D_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC109_210702	Field_D	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC209_210702	Interlab_D	807707	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	<0.01	
	01 Dec 2021	0066_MW217D_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW217D_220504	Normal	EM2208151	0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW217D_221116	Normal	EM2223006	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW217D_230524	Normal	EM2309599	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC100_230524	Field_D	EM2309599	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC200_230524	Interlab_D	993983	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	<0.01	
	05 Dec 2023	0066_MW217D_231205	Normal	EM2321752	0.02	<0.01	0.03	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
MW218	29 Mar 2018	MW218_HS_180329	Normal	591914	0.001	<0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	
		MW218_LF_180329	Normal	591914	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	
	15 Nov 2019	0066_MW218_191115	Normal	EM1919512	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	20 May 2020	0066_MW218_200520	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_MW218_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW218_210629	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC103_210629	Field_D	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC203_210629	Interlab_D	807707	<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	<0.01	
	01 Dec 2021	0066_MW218_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_MW218_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW218_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW218_230524	Normal	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC101_230524	Field_D	EM2309599	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC201_230524	Interlab_D	993983	<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	<0.01	
	06 Dec 2023	0066_MW218_231206	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	

	Perfluorocarbons													
	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water														
PFAS NEMP 2.0 Table 5 Freshwater 99%														

Location Code	Date	Field ID	Sample Type	Lab Report Number														
MW003	29 Mar 2018	MW003_HS_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	15 Nov 2019	0066_MW003_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW003_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW003_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Jun 2021	0066_MW003_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Nov 2021	0066_MW003_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW003_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW003_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW003_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	06 Dec 2023	0066_MW003_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
MW017	09 May 2016	0066_GW08-VT0067_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	31 May 2016	0066-VT0067 GW08	Normal	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
	05 Apr 2017	0066_GW08-VT0067_201704	Normal		<0.005	<0.05	<0.002		<0.1000		<0.1000	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	20 Oct 2017	GW08-VT0067_201017	Normal	568935	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	19.18
	06 Dec 2017	GW08-VT0067_061217	Normal	577093	0.014	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	0.002	<0.001	34.692
	04 Apr 2018	GW08-VT0067_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	23.58
	19 Nov 2019	0066_GW08-VT0067_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	32.7
	20 May 2020	0066_MW017_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	55.0
		0066_QC101_200520	Field_D	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	37.8
		0066_QC201_200520	Interlab_D	721332	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	26.66
	25 Nov 2020	0066_MW017_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.4
		0066_QC101_201125	Field_D	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.2
		0066_QC201_201125	Interlab_D	760007	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	9.54
	30 Jun 2021	0066_MW017_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	23.6
	30 Nov 2021	0066_MW017_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	20.0
	03 May 2022	0066_MW017_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	18.4
	16 Nov 2022	0066_MW017_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	7.91
	24 May 2023	0066_MW017_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.8
	06 Dec 2023	0066_MW017_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.2
MW018	09 May 2016	0066_GW09-VT0067_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	31 May 2016	0066-VT0067 GW09	Normal	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
		0066-VT0067 QC102	Field_D	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
	06 Dec 2017	GW09-VT0067_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.047
		QC102_061217	Field_D	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.053
	04 Apr 2018	GW09-VT0067_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.044
	21 May 2020	0066_MW018_200521	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09
	25 Nov 2020	0066_MW018_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05
	30 Jun 2021	0066_MW018_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11
	30 Nov 2021	0066_MW018_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	04 May 2022	0066_MW018_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16
	24 May 2023	0066_MW018_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	06 Dec 2023	0066_MW018_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09

					Perfluorocarbons															
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS		
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005		
PFAS NEMP 2.0 Table 1 Health Drinking Water																				
PFAS NEMP 2.0 Table 5 Freshwater 99%																				
MW019	21 May 2016	0066_GW01-VT0191_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	06 Dec 2017	GW01-VT0191_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	0.006	<0.001	<0.001	0.43		
	21 Nov 2019	0066_GW01-VT0191_191121	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.52	
		0066_QC105_191121	Field_D	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.49	
		0066_QC205_191121	Interlab_D	689708	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.52	
	21 May 2020	0066_MW019_200521	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.82	
	26 Nov 2020	0066_MW019_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.47	
	30 Jun 2021	0066_MW019_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.41	
	02 Dec 2021	0066_MW019_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31	
	05 May 2022	0066_MW019_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.33	
	26 May 2023	0066_MW019_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.26	
04 Dec 2023	0066_MW019_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
MW025	30 May 2018	0066_GW02-VT0363_180530	Normal	601156	<0.001	<0.001	0.009	<0.002	<0.002	<0.002	<0.002	0.005	0.011	<0.001	<0.005	<0.001	<0.001	4.61		
	20 Nov 2019	0066_GW02-VT0363_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.73		
	20 May 2020	0066_MW025_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.66	
	25 Nov 2020	0066_MW025_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.36	
	29 Jun 2021	0066_MW025_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.23	
	30 Nov 2021	0066_MW025_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.83	
	03 May 2022	0066_MW025_220503	Normal	EM2208151	<0.02	<0.05	0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	0.05	<0.05	<0.05	<0.05	<0.05	5.20	
	24 May 2023	0066_MW025_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.21	
06 Dec 2023	0066_MW025_231206	Normal	EM2321752	<0.02	<0.05	0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	0.04	<0.05	<0.05	<0.05	<0.05	4.63		
MW027	30 May 2018	0066_GW04-VT0363_180530	Normal	601156	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	<0.1		
	25 Nov 2020	0066_MW027_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
MW028	30 May 2016	0066-VT0365 GW01	Normal	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01				
	05 Dec 2017	GW01-VT0365_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	2.671		
	16 Feb 2018	GW01-VT0365_180216	Normal	585592	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.975		
	15 Nov 2019	0066_GW01-VT0365_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.79	
	19 May 2020	0066_MW028_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.87	
	26 Nov 2020	0066_MW028_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.55	
	29 Jun 2021	0066_MW028_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.76	
	30 Nov 2021	0066_MW028_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.50	
	04 May 2022	0066_MW028_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.61	
	16 Nov 2022	0066_MW028_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.55	
	26 May 2023	0066_MW028_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.48
		0066_QC109_230526	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.67	
		0066_QC209_230526	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	2.17	
	04 Dec 2023	0066_MW028_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.07	
		0066_QC104_231204	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.44	
066_QC204_231204		Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	2.25		

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW029	30 May 2016	0066-VT0365 GW02	Normal	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
	06 Dec 2017	GW02-VT0365_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.329
	16 Feb 2018	GW02-VT0365_180216	Normal	585592	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.168
	14 Nov 2019	0066_GW02-VT0365_191114	Normal	EM1919512	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.53
	19 May 2020	0066_MW029_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.46
	26 Nov 2020	0066_MW029_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.22
	29 Jun 2021	0066_MW029_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	30 Nov 2021	0066_MW029_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37
	04 May 2022	0066_MW029_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	15 Nov 2022	0066_QC200_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.27
	16 Nov 2022	0066_MW029_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24
		0066_QC100_221115	Field_D	EM2223006	<0.02	Field_D	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23
29 May 2023	0066_MW029_230529	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06	
05 Dec 2023	0066_MW029_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05	
MW030	30 May 2016	0066-VT0365 GW03	Normal	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
	06 Dec 2017	GW03-VT0365_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.253
	16 Feb 2018	GW03-VT0365_180216	Normal	585592	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.124
	20 Nov 2019	0066_GW03-VT0365_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW030_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
	26 Nov 2020	0066_MW030_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	29 Jun 2021	0066_MW030_210628	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	30 Nov 2021	0066_MW030_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	04 May 2022	0066_MW030_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	16 Nov 2022	0066_MW030_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	29 May 2023	0066_MW030_230529	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	05 Dec 2023	0066_MW030_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05
MW033	19 May 2016	0066_GW02-VT0366_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	05 Dec 2017	GW02-VT0366_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.069
	28 Mar 2018	GW02-VT0366_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.065
	20 Nov 2019	0066_GW02_VT0366_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04
	20 May 2020	0066_MW033_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	25 Nov 2020	0066_MW033_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	30 Jun 2021	0066_MW033_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_MW033_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	03 May 2022	0066_MW033_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	16 Nov 2022	0066_MW033_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	24 May 2023	0066_MW033_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	04 Dec 2023	0066_MW033_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW034	19 May 2016	0066_GW01-VT0367_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	04 Dec 2017	GW01-VT0367_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.0326
	14 Nov 2019	0066_GW01-VT0367_191114	Normal	EM1919512	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06
	19 May 2020	0066_MW034_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04
	25 Nov 2020	0066_MW034_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	29 Jun 2021	0066_MW034_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Nov 2021	0066_MW034_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	03 May 2022	0066_MW034_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW034_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	25 May 2023	0066_MW034_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
04 Dec 2023	0066_MW034_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
MW036	10 May 2016	0066_GW03-VT0367_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	04 Dec 2017	GW03-VT0367_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.1233
	28 Mar 2018	GW03-VT0367_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.091
	20 Nov 2019	0066_GW03-VT0367_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14
	19 May 2020	0066_MW036_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16
	25 Nov 2020	0066_MW036_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	29 Jun 2021	0066_MW036_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	30 Nov 2021	0066_MW036_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	03 May 2022	0066_MW036_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	16 Nov 2022	0066_MW036_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05
	25 May 2023	0066_MW036_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	04 Dec 2023	0066_MW036_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04
MW041	09 May 2016	0066_GW02-VT0369_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	04 Dec 2017	GW02-VT0369_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.59
	28 Mar 2018	GW02-VT0369_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.429
	14 Nov 2019	0066_GW02-VT0369_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44
	19 May 2020	0066_MW041_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.55
	26 Nov 2020	0066_MW041_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28
	29 Jun 2021	0066_MW041_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.25
	01 Dec 2021	0066_MW041_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.26
	05 May 2022	0066_MW041_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.27
	17 Nov 2022	0066_MW041_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.35
	25 May 2023	0066_MW041_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40
	04 Dec 2023	0066_MW041_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.39
		0066_QC103_231204	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.46
		066_QC203_231204	Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 Fts)	8:2 Fluorotelomer sulfonate (8:2 Fts)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW043	30 May 2016	0066-VT0370 GW01	Normal															
				502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
	01 Dec 2017	GW01-VT0370_011217	Normal	575567	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.011
	20 Nov 2019	0066_GW01-VT0370_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	20 May 2020	0066_MW043_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_MW043_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Jun 2021	0066_MW043_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Dec 2021	0066_MW043_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_MW043_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	17 Nov 2022	0066_MW043_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW043_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 Dec 2023	0066_MW043_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
MW046	30 May 2016	0066-VT0382 GW01	Normal	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01		
	04 Dec 2017	GW01-VT0371_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.18
	14 Nov 2019	0066_GW01-VT0371_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.17
	20 May 2020	0066_MW046_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.18
		0066_QC102_200520	Field_D	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.20
		0066_QC202_200520	Interlab_D	721332	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.13
	25 Nov 2020	0066_MW046_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
	30 Jun 2021	0066_MW046_210630	Normal	EM2113696	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11
	01 Dec 2021	0066_MW046_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
		0066_QC108_211201	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
		0066_QC208_211201	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15
	03 May 2022	0066_MW046_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	15 Nov 2022	0066_QC206_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15
	17 Nov 2022	0066_MW046_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
		0066_QC106_221117	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
	24 May 2023	0066_MW046_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	04 Dec 2023	0066_MW046_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
MW047	04 Dec 2017	GW02-VT0371_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.649
	28 Mar 2018	GW02-VT0371_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.44
	14 Nov 2019	0066_GW02-VT0371_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.38
	20 May 2020	0066_MW047_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44
	25 Nov 2020	0066_MW047_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31
	30 Jun 2021	0066_MW047_210630	Normal	EM2113696	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28
	01 Dec 2021	0066_MW047_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29
	03 May 2022	0066_MW047_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40
	17 Nov 2022	0066_MW047_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28
	29 May 2023	0066_MW047_230529	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24
04 Dec 2023	0066_MW047_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.25	

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW051	10 May 2016	0066_GW01-VT0372_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	06 Dec 2017	GW01-VT0372_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.354
	28 Mar 2018	GW01-VT0372_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.32
	26 Nov 2020	0066_MW051_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.38
		0066_QC104_201126	Field_D	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.22
		0066_QC204_201126	Interlab_D	760007	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	1.4
	30 Jun 2021	0066_MW051_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.72
	01 Dec 2021	0066_MW051_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29
	03 May 2022	0066_MW051_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.46
		0066_QC103_220503	Field_D	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44
		0066_QC203_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.53
	16 Nov 2022	0066_MW051_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
	25 May 2023	0066_MW051_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	04 Dec 2023	0066_MW051_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
MW054	24 May 2016	0066_GW01-VT0373_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	05 Dec 2017	GW01-VT0373_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	28 Mar 2018	GW01-VT0373_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	<0.005
	15 Nov 2019	0066_GW01-VT0373_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	20 May 2020	0066_MW054_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW054_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Jul 2021	0066_MW054_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Dec 2021	0066_MW054_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW054_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	15 Nov 2022	0066_QC202_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	16 Nov 2022	0066_MW054_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
		0066_QC102_221115	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04
	25 May 2023	0066_MW054_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.30
	04 Dec 2023	0066_MW054_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29
MW061	26 Nov 2020	0066_MW061_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.56
	30 Jun 2021	0066_MW061_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.52
		0066_QC104_210630	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.56
	01 Jul 2021	0066_QC204_210701	Interlab_D	807707	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.61
	02 Dec 2021	0066_MW061_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.49
	04 May 2022	0066_MW061_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.56
	15 Nov 2022	0066_QC207_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.46
	17 Nov 2022	0066_MW061_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.42
		0066_QC107_221117	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44
	25 May 2023	0066_MW061_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.43
		0066_QC106_230525	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.41
	04 Dec 2023	0066_MW061_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.36

					Perfluorocarbons														
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	
PFAS NEMP 2.0 Table 1 Health Drinking Water																			
PFAS NEMP 2.0 Table 5 Freshwater 99%																			
MW062	26 Nov 2020	0066_MW062_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62	
	30 Jun 2021	0066_MW062_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.59	
	02 Dec 2021	0066_MW062_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.56	
	04 May 2022	0066_MW062_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.60	
	17 Nov 2022	0066_MW062_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.58	
	25 May 2023	0066_MW062_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40	
	04 Dec 2023	0066_MW062_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.47	
		0066_QC102_231204	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.53	
066_QC202_231204		Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.44		
MW063	27 Nov 2020	0066_MW063_201127	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	29 Jun 2021	0066_MW063_210628	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	30 Nov 2021	0066_MW063_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01	
	04 May 2022	0066_MW063_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	16 Nov 2022	0066_MW063_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	24 May 2023	0066_MW063_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	06 Dec 2023	0066_MW063_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03	
MW064	26 Nov 2020	0066_MW064_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.94	
	30 Jun 2021	0066_MW064_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.22	
	01 Dec 2021	0066_MW064_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.41	
	04 May 2022	0066_MW064_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.74	
	16 Nov 2022	0066_MW064_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.03	
	26 May 2023	0066_MW064_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.54	
	04 Dec 2023	0066_MW064_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.76	
		0066_QC100_231204	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.75	
		066_QC200_231204		Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.23	<0.01	<0.01	0.95

					Perfluorocarbons														
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	
PFAS NEMP 2.0 Table 1 Health Drinking Water																			
PFAS NEMP 2.0 Table 5 Freshwater 99%																			
MW067	05 May 2022	0066_MW067_220505	Normal	EM2208151	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	<0.05	<0.05	<0.05	68.1	
	17 Nov 2022	0066_MW067_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	96.1	
	24 May 2023	0066_MW067_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	97.3	
	06 Dec 2023	0066_MW067_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	92.9	
MW068	05 May 2022	0066_MW068_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.88	
	16 Nov 2022	0066_MW068_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.45	
	25 May 2023	0066_QC108_230525	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.64	
		0066_QC208_230525	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.88	
	26 May 2023	0066_MW068_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.77	
	04 Dec 2023	0066_MW068_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.52
MW069	03 May 2022	0066_MW069_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.80	
	16 Nov 2022	0066_MW069_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.05	<0.05	<0.05	0.33	
	25 May 2023	0066_MW069_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.70	
	04 Dec 2023	0066_MW069_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
MW070	04 May 2022	0066_MW070_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.53	
	16 Nov 2022	0066_MW070_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.30	
	04 Dec 2023	0066_MW070_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.99	
MW071	03 May 2022	0066_MW071_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.72	
		0066_QC101_220503	Field_D	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.71	
		0066_QC201_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.82	
	16 Nov 2022	0066_MW071_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.21	
	26 May 2023	0066_MW071_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.03	
	06 Dec 2023	0066_MW071_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.58	
MW074	24 May 2023	0066_MW074_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.32	
	06 Dec 2023	0066_MW074_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.83	

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW075	24 May 2023	0066_MW075_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	21.8
	06 Dec 2023	0066_MW075_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	28.9
MW102	04 Dec 2017	MW102_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.657
	28 Mar 2018	MW102_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.692
	14 Nov 2019	0066_MW102_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.94
	19 May 2020	0066_MW102_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.03
	25 Nov 2020	0066_MW102_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.15
	29 Jun 2021	0066_MW102_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.95
		0066_QC102_210629	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.04
		0066_QC202_210629	Interlab_D	807703	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	1.34
	30 Nov 2021	0066_MW102_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.74
		0066_QC106_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.83
		0066_QC206_211130	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.91
	03 May 2022	0066_MW102_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.85
	17 Nov 2022	0066_MW102_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.73
	25 May 2023	0066_MW102_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62
	04 Dec 2023	0066_MW102_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.41
MW109	23 May 2016	0066_MW109_20160523	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	05 Dec 2017	MW109_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.042
	15 Nov 2019	0066_MW109_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	20 May 2020	0066_MW109_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_MW109_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	30 Jun 2021	0066_MW109_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	02 Dec 2021	0066_MW109_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	05 May 2022	0066_MW109_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15
	16 Nov 2022	0066_MW109_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37
	26 May 2023	0066_MW109_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	04 Dec 2023	0066_MW109_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12
MW110	24 May 2016	0066_MW110_20160524	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	04 Dec 2017	MW110_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	1.373
	05 Apr 2018	MW110_HS_180405	Normal	592843	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.977
	14 Nov 2019	0066_MW110_191114	Normal	EM1919512	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.88
	25 Nov 2020	0066_MW110_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.50
	29 Jun 2021	0066_MW110_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.45
	30 Nov 2021	0066_MW110_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.95
	05 May 2022	0066_MW110_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.17
	15 Nov 2022	0066_QC201_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	1.19
	16 Nov 2022	0066_MW110_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.17
		0066_QC101_221115	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.15
		0066_MW110_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37
	25 May 2023	0066_QC107_230525	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.43
		0066_QC207_230525	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.38
		0066_MW110_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.16

					Perfluorocarbons														
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																			
PFAS NEMP 2.0 Table 5 Freshwater 99%																			
MW111	24 May 2016	0066_MW111_20160524	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05		
	04 Dec 2017	MW111_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.0265	
	05 Apr 2018	MW111_HS_180405	Normal	592843	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.03	
	14 Nov 2019	0066_MW111_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	20 May 2020	0066_MW111_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	26 Nov 2020	0066_MW111_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	29 Jun 2021	0066_MW111_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	30 Nov 2021	0066_MW111_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	05 May 2022	0066_MW111_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
MW112	23 May 2016	0066_MW112_20160523	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05		
	05 Dec 2017	MW112_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.0103	
	15 Nov 2019	0066_MW112_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	19 Nov 2019	0066_MW112_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	20 May 2020	0066_MW112_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	26 Nov 2020	0066_MW112_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	01 Dec 2021	0066_MW112_211201	Normal	EM2124215	<0.02	Normal	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	04 May 2022	0066_MW112_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	16 Nov 2022	0066_MW112_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	25 May 2023	0066_MW112_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	04 Dec 2023	0066_MW112_231204	Normal	EM2321752	<0.02	Normal	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
MW117	25 May 2016	0066_MW117_20160525	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05		
	06 Dec 2017	MW117_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.01	
	04 Apr 2018	MW117_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.009	
	19 Nov 2019	0066_MW117_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	20 May 2020	0066_MW117_200520	Normal	EM2008583	<0.02	Normal	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01	
	25 Nov 2020	0066_MW117_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	30 Jun 2021	0066_MW117_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	30 Nov 2021	0066_MW117_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
		0066_QC101_211130	Field_D	EM2124215	<0.02	Field_D	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01	
		0066_QC201_211130	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	
	04 May 2022	0066_MW117_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	16 Nov 2022	0066_MW117_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	24 May 2023	0066_MW117_230524	Normal	EM2309599	<0.02	Normal	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	06 Dec 2023	0066_MW117_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01	

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW121	05 Apr 2017	0066_MW121_20170405	Normal		<0.005	<0.05	<0.002		<0.1000		<0.1000	<0.05	<0.005	<0.05	0.24	<0.01	<0.05	
	04 Apr 2018	MW121_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.41	0.24	<0.01	50.521
	20 Nov 2019	0066_MW121_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.27	0.09	<0.05	32.0
	20 May 2020	0066_MW121_200520	Normal	EM2008583	<0.02	<0.05	0.04	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.20	0.06	<0.05	23.8
		0066_QC103_200520	Field_D	EM2008583	<0.02	<0.05	0.03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.19	<0.05	<0.05	23.7
		0066_QC203_200520	Interlab_D	721332	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.13	0.03	<0.01	19.47
	25 Nov 2020	0066_MW121_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	1.40	0.11	<0.05	123
	29 Jun 2021	0066_MW121_210629	Normal	EM2112638	<0.04	<0.10	<0.04	<0.10	<0.10	<0.10	<0.10	<0.04	<0.04	<0.05	1.89	0.07	<0.05	156
	02 Dec 2021	0066_MW121_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.67	0.06	<0.05	65.3
		0066_QC100_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.84	0.05	<0.05	77.9
	03 May 2022	0066_MW121_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.41	0.07	<0.05	63.3
		0066_QC100_220503	Field_D	EM2208151	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	0.33	0.06	<0.05	59.8
		0066_QC200_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.45	0.07	<0.01	100.06
	17 Nov 2022	0066_MW121_221117	Normal	EM2223006	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	0.86	0.12	<0.05	142
	24 May 2023	0066_MW121_230524	Normal	EM2309599	<0.02	<0.05	0.03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.20	<0.05	<0.05	32.6
	04 Dec 2023	0066_MW121_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.12
MW122D	05 Apr 2017	0066_MW122D_20170405	Normal		<0.005	<0.05	<0.002		<0.1000		<0.1000	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	04 Apr 2018	MW122D_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.007
	20 Nov 2019	0066_MW122D_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	20 May 2020	0066_MW122_D_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW122D_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	29 Jun 2021	0066_MW122D_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Nov 2021	0066_MW122D_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	03 May 2022	0066_MW122D_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	17 Nov 2022	0066_MW122D_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	24 May 2023	0066_MW122D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 Dec 2023	0066_MW122D_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
MW122S	05 Apr 2017	0066_MW122S_20170405	Normal		<0.005	<0.05	<0.002		<0.1000		<0.1000	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05	
	04 Apr 2018	MW122S_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.934
	20 Nov 2019	0066_MW122S_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.72
	20 May 2020	0066_MW122_S_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.73
	25 Nov 2020	0066_MW122S_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.92
	29 Jun 2021	0066_MW122S_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.18
	01 Dec 2021	0066_MW122S_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.59
	03 May 2022	0066_MW122S_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.61
	05 Dec 2023	0066_MW122S_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.27

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW202	17 Oct 2017	MW202_171017	Normal	568720	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
				572496	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	07 Dec 2017	MW202_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	20 Nov 2019	0066_MW202_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW202_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_MW202_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Jun 2021	0066_MW202_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_MW202_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC110_211201	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC210_211201	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	03 May 2022	0066_MW202_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW202_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW202_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_MW202_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
MW204	17 Oct 2017	MW204_171017	Normal	568720	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	07 Dec 2017	MW204_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	15 Nov 2019	0066_MW204_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW204_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW204_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	29 Jun 2021	0066_MW204_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_MW204_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW204_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW204_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW204_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_MW204_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC106_231205	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		066_QC206_231205	Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
MW206	19 Oct 2017	MW206_191017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	07 Dec 2017	MW206_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	19 Nov 2019	0066_MW206_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW206_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW206_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC100_201125	Field_D	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC200_201125	Interlab_D	760007	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	29 Jun 2021	0066_MW206_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_MW206_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW206_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW206_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW206_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_MW206_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTeDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW207	17 Oct 2017	MW207_171017	Normal	568720	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.058
	07 Dec 2017	MW207_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.056
	04 Apr 2018	MW207_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.045
	15 Nov 2019	0066_MW207_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	19 May 2020	0066_MW207_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW207_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	29 Jun 2021	0066_MW207_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC101_210629	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC201_210629	Interlab_D	807703	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	01 Dec 2021	0066_MW207_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC107_211201	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC207_211201	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	03 May 2022	0066_MW207_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW207_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
25 May 2023	0066_MW207_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
05 Dec 2023	0066_MW207_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
MW208	19 Oct 2017	MW208_191017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	07 Dec 2017	MW208_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	15 Nov 2019	0066_MW208_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW208_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW208_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	29 Jun 2021	0066_MW208_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_MW208_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW208_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC104_220503	Field_D	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC204_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	16 Nov 2022	0066_MW208_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW208_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_MW208_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC108_231205	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
066_QC208_231205		Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	
MW209	19 Oct 2017	MW209_191017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	07 Dec 2017	MW209_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	19 Nov 2019	0066_MW209_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_MW209_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW209_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	29 Jun 2021	0066_MW209_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_MW209_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW209_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW209_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_MW209_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_MW209_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW210	20 Oct 2017	MW210_201017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	07 Dec 2017	MW210_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
		QC104_071217	Field_D	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	15 Nov 2019	0066_MW210_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	18 May 2020	0066_MW210_200518	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	25 Nov 2020	0066_MW210_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Jun 2021	0066_MW210_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Nov 2021	0066_MW210_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_MW210_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW210_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
25 May 2023	0066_MW210_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
06 Dec 2023	0066_MW210_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
MW212	03 Apr 2018	MW212_LF_180403	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	65.467
	04 Apr 2018	MW212_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	55.761
	20 Nov 2019	0066_MW212_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	39.9
	20 May 2020	0066_MW212_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	66.6
	25 Nov 2020	0066_MW212_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	43.4
	29 Jun 2021	0066_MW212_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	51.7
	30 Nov 2021	0066_MW212_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	42.6
	03 May 2022	0066_MW212_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	46.7
	17 Nov 2022	0066_MW212_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	42.0
	24 May 2023	0066_MW212_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	44.4
04 Dec 2023	0066_MW212_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	38.3	
MW213	03 Apr 2018	MW213_LF_180403	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	19.015
	04 Apr 2018	MW213_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	20.328
	20 Nov 2019	0066_MW213_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	23.5
	20 May 2020	0066_MW213_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	29.6
	25 Nov 2020	0066_MW213_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	17.1
	29 Jun 2021	0066_MW213_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.1
	30 Nov 2021	0066_MW213_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.0
	03 May 2022	0066_MW213_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	15.3
	17 Nov 2022	0066_MW213_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	14.5
	24 May 2023	0066_MW213_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	15.8
04 Dec 2023	0066_MW213_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.8	

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW214D	03 Apr 2018	MW214D_HS_180403	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	8.269
		MW214D_LF_180403	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	6.931
	20 Nov 2019	0066_MW214D_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	15.0
	20 May 2020	0066_MW214_D_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	15.2
	25 Nov 2020	0066_MW214D_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	17.1
	29 Jun 2021	0066_MW214D_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.08	<0.05	<0.05	17.4
		0066_QC100_210629	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.09	<0.05	<0.05	18.6
		0066_QC200_210629	Interlab_D	807707	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.13	<0.01	<0.01	23.6
	30 Nov 2021	0066_MW214D_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	15.1
	05 May 2022	0066_MW214D_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.7
	17 Nov 2022	0066_MW214D_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.53
	24 May 2023	0066_MW214D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.39
	06 Dec 2023	0066_MW214D_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31
MW215D	03 Apr 2018	MW215D_HS_180403	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	12.058
		MW215D_LF_180403	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	8.612
	19 Nov 2019	0066_MW215D_191119	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.09
	20 May 2020	0066_MW215_D_200529	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.66
	25 Nov 2020	0066_MW215D_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.87
	29 Jun 2021	0066_MW215D_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.56
	30 Nov 2021	0066_MW215D_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.07	<0.05	<0.05	3.82
	03 May 2022	0066_MW215D_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.40
		0066_QC102_220503	Field_D	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.40
		0066_QC202_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	4.95
	16 Nov 2022	0066_MW215D_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.06
	24 May 2023	0066_MW215D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.93
	06 Dec 2023	0066_MW215D_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.10
MW215S	04 Apr 2018	MW215S_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	24.4
		MW215S_LF_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	28.94
		QC101_180404	Field_D	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	26.95
		QC201_180404	Interlab_D	EM1805793	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	26.4
	19 Nov 2019	0066_MW215S_191119	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	41.1
	20 Nov 2019	0066_MW215S_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	37.4
	20 May 2020	0066_MW215_S_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	33.5
	25 Nov 2020	0066_MW215S_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	48.5
	29 Jun 2021	0066_MW215S_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	57.7
	30 Nov 2021	0066_MW215S_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.05	<0.05	<0.05	106
		0066_QC102_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.05	<0.05	<0.05	110
		0066_QC202_211130	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.06	<0.01	<0.01	102.46
	03 May 2022	0066_MW215S_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	36.1
	16 Nov 2022	0066_MW215S_221116	Normal	EM2223006	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	0.06	<0.05	<0.05	122
	24 May 2023	0066_MW215S_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.08	<0.05	<0.05	118
	06 Dec 2023	0066_MW215S_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.06	<0.05	<0.05	126

					Perfluorocarbons													
					Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 Fts)	8:2 Fluorotelomer sulfonate (8:2 Fts)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Drinking Water																		
PFAS NEMP 2.0 Table 5 Freshwater 99%																		
MW217D	29 Mar 2018	MW217D_HS_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.064
		MW217D_LF_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.029
		QC101_180329	Field_D	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.032
		QC201_180329	Interlab_D	EM1805570	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	20 Nov 2019	0066_MW217_D_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	20 May 2020	0066_MW217_D_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	26 Nov 2020	0066_MW217D_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	02 Jul 2021	0066_MW217D_210702	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC109_210702	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC209_210702	Interlab_D	807707	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	01 Dec 2021	0066_MW217D_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_MW217D_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW217D_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	24 May 2023	0066_MW217D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
0066_QC100_230524		Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01	
0066_QC200_230524		Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	
05 Dec 2023	0066_MW217D_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03	
MW218	29 Mar 2018	MW218_HS_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
		MW218_LF_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
	15 Nov 2019	0066_MW218_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	20 May 2020	0066_MW218_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_MW218_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	29 Jun 2021	0066_MW218_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC103_210629	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC203_210629	Interlab_D	807707	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	01 Dec 2021	0066_MW218_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_MW218_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_MW218_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	24 May 2023	0066_MW218_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC101_230524	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC201_230524	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	06 Dec 2023	0066_MW218_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01

Table B2 - Surface Water Analytical Results

	PFAS concentrations in drinking water (µg/L)														
	PFAS concentrations in drinking water (µg/L)														
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
LOR	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
PFAS NHMRC 2019 Health Recreational Water		10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19													

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW001	17 Aug 2017	SW001_180817	Normal	559306	0.039	0.018	0.239	0.042	0.037	0.2	0.002	<0.001	0.009	0.012	0.082	0.014	<0.001	<0.001	<0.001
	18 Nov 2019	0066_SW001_191118	Normal	EM19191718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW001_200521	Normal	EM2008583	0.09	<0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW001_201126	Normal	EM2021043	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW001_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW001_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW001_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW001_221117	Normal	EM2223006	0.04	<0.02	0.14	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_SW001_230524	Normal	EM2309600	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_SW001_231206	Normal	EM2321752	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW002	17 Aug 2017	SW002_180817	Normal	559306	0.007	0.001	0.011	0.002	<0.001	0.004	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
	20 Nov 2019	0066_SW002_191120	Normal	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW002_200521	Normal	EM2008583	0.16	<0.01	0.23	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW002_201126	Normal	EM2021043	0.07	<0.01	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW002_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW002_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW002_220504	Normal	EM2208151	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW002_221117	Normal	EM2223006	0.21	<0.01	0.31	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_SW002_230524	Normal	EM2309600	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW003	17 Aug 2017	SW003_180817	Normal	559306	0.017	0.005	0.03	0.002	0.001	0.013	<0.001	<0.001	0.014	0.052	0.033	0.015	0.002	<0.001	0.002
	14 Nov 2019	0066_SW003_191114	Normal	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_QC104_200521	Field_D	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC204_200521	Interlab_D	721332	<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
		0066_SW003_200521	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW003_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW003_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_SW003_211202	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 May 2022	0066_SW003_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW003_221117	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW004	23 May 2023	0066_SW003_230523	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Aug 2017	SW004_180817	Normal	559306	0.17	0.034	0.42	0.024	0.03	0.25	0.007	<0.001	0.006	0.009	0.059	0.011	<0.001	<0.001	0.001
	14 Nov 2019	0066_SW004_191114	Normal	EM1919512	0.96	0.32	3.50	0.42	0.47	2.54	<0.05	<0.05	<0.2	0.10	0.66	0.16	<0.05	<0.05	<0.05
	21 May 2020	0066_SW004_200521	Normal	EM2008583	9.68	2.07	24.9	1.88	2.19	15.2	1.12	<0.02	0.2	0.38	2.94	0.76	<0.02	<0.02	<0.02
	26 Nov 2020	0066_QC102_201126	Field_D	EM2021043	0.11	<0.01	0.15	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC202_201126	Interlab_D	760007	0.10	<0.01	0.14	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW004_201126	Normal	EM2021043	0.07	<0.01	0.11	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW004_210702	Normal	EM2112638	0.16	0.04	0.40	0.03	0.03	0.24	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_SW004_211202	Normal	EM2124215	5.87	1.82	17.9	1.40	2.38	12.0	0.81	<0.02	0.2	0.40	2.48	0.73	<0.02	<0.02	<0.02
	04 May 2022	0066_SW004_220504	Normal	EM2208151	0.67	0.08	1.24	0.05	0.06	0.57	0.04	<0.02	<0.1	<0.02	0.07	0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW004_221117	Normal	EM2223006	4.57	0.53	7.93	0.24	0.35	3.36	0.29	<0.02	<0.1	0.06	0.40	0.12	<0.02	<0.02	<0.02
	24 May 2023	0066_SW004_230524	Normal	EM2309600	0.26	<0.01	0.28	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW004_231205	Normal	EM2321752	0.39	0.06	0.88	0.04	0.06	0.49	0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02

Table B2 - Surface Water Analytical Results

					ons														
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					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
PFAS NHMRC 2019 Health Recreational Water						10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19													
Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW005	18 Aug 2017	QC101_170818	Field_D	559306	0.019	0.002	0.023	<0.001	<0.001	0.004	<0.001	<0.001	<0.005	<0.001	0.003	0.001	<0.001	<0.001	<0.001
		SW005_170818	Normal	559306	0.022	0.002	0.026	<0.001	<0.001	0.004	<0.001	<0.001	0.007	0.004	0.003	0.001	<0.001	<0.001	0.001
	18 Nov 2019	0066_SW005_191118	Normal	EM19191718	0.10	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW005_200521	Normal	EM2008583	0.45	<0.01	0.48	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW005_201126	Normal	EM2021043	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_SW005_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW005_211202	Normal	EM2124215	2.31	0.05	2.68	0.14	0.06	0.37	0.03	<0.02	<0.1	0.10	0.14	0.03	<0.02	<0.02	<0.02
	04 May 2022	0066_SW005_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW005_221117	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_SW005_230524	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_SW005_231206	Normal	EM2321752	0.30	<0.01	0.34	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW006	17 Aug 2017	SW006_180817	Normal	559306	0.36	0.009	0.54	0.012	0.016	0.18	0.005	<0.001	0.006	0.01	0.034	0.004	<0.001	<0.001	<0.001
	20 Nov 2019	0066_SW006_191120	Normal	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW006_200521	Normal	EM2008583	0.05	<0.01	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW006_201126	Normal	EM2021043	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_SW006_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW006_211201	Normal	EM2124215	0.01	<0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW006_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW006_221117	Normal	EM2223006	0.06	<0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_QC105_230524	Field_D	EM2309599	0.02	<0.01	0.03	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC205_230524	Interlab_D	993983	0.02	<0.01	0.03	<0.01	<0.01	0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW006_230524	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW007	17 Aug 2017	SW007_180817	Normal	559306	0.01	0.002	0.013	<0.001	<0.001	0.003	<0.001	<0.001	<0.005	<0.001	0.003	0.002	<0.001	<0.001	<0.001
	18 Nov 2019	0066_SW007_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW007_200521	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW007_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_QC107_210702	Field_D	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC207_210702	Interlab_D	807703	<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
		0066_SW007_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW007_221116	Normal	EM2223006	0.01	<0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_SW007_230524	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW007_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW009	17 Aug 2017	SW009_180817	Normal	559306	0.013	0.001	0.018	0.001	<0.001	0.005	<0.001	<0.001	<0.005	<0.001	0.002	0.001	<0.001	<0.001	<0.001
	18 Nov 2019	0066_SW009_191118	Normal	EM1919718	0.95	<0.05	0.95	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW009_300521	Normal	EM2008583	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	27 Nov 2020	0066_SW009_301127	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW009_210701	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW009_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW009_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW009_221116	Normal	EM2223006	0.01	<0.01	0.07	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW009_230526	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW009_231205	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Table B2 - Surface Water Analytical Results

	PFAS concentrations														
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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
PFAS NHMRC 2019 Health Recreational Water		10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19													

Location Code	Date	Field ID	Sample Type	Lab Report Number	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
SW010	17 Aug 2017	SW010_180817	Normal	559306	0.017	0.002	0.026	0.002	0.001	0.009	<0.001	<0.001	<0.005	0.002	0.002	0.001	<0.001	<0.001	<0.001
	19 Nov 2019	0066_SW010_191119	Normal	EM1919718	0.33	<0.01	0.43	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	21 May 2020	0066_QC105_200521	Field_D	EM2008583	0.07	0.02	0.12	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC205_200521	Interlab_D	721332	0.05	<0.01	0.08	<0.01	0.02	0.03	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
		0066_SW010_200521	Normal	EM2008583	0.06	0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	27 Nov 2020	0066_SW010_201127	Normal	EM2021043	0.54	0.02	0.69	0.02	0.02	0.15	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_QC108_210702	Field_D	EM2112638	0.04	<0.01	0.12	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	0.03	0.03	<0.02	<0.02	<0.02	<0.02
		0066_QC208_210702	Interlab_D	807707	0.07	<0.01	0.15	0.01	0.01	0.08	<0.01	<0.01	<0.05	0.04	0.03	<0.01	<0.01	<0.01	<0.01
		0066_SW010_210702	Normal	EM2112638	0.05	<0.01	0.12	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW010_211201	Normal	EM2124215	0.36	0.01	0.53	0.02	0.02	0.17	<0.02	<0.02	<0.1	0.05	0.06	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW010_220504	Normal	EM2208151	0.08	<0.01	0.14	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW010_221116	Normal	EM2223006	0.08	<0.01	0.15	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW010_230526	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW010_231205	Normal	EM2321752	0.26	<0.01	0.35	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02
SW014	21 Aug 2017	SW014_170821	Normal	559967	0.96	0.57	2.96	0.58	0.53	2	0.05	<0.01	0.69	1	4.6	0.58	0.01	<0.01	<0.01
	18 Nov 2019	0066_SW014_191118	Normal	EM1919718	1.12	0.32	2.46	0.33	0.31	1.34	0.05	<0.02	0.3	0.49	2.52	0.28	<0.02	<0.02	<0.02
	19 May 2020	0066_SW014_200519	Normal	EM2008583	2.29	0.34	4.59	0.91	0.74	2.30	0.09	<0.02	0.9	1.35	7.22	0.76	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW014_301126	Normal	EM2021043	9.63	0.66	11.8	0.34	0.42	2.17	0.24	<0.02	0.4	0.52	2.23	0.46	0.07	<0.02	<0.02
	30 Nov 2021	0066_SW014_211130	Normal	EM2124215	4.36	0.74	6.97	0.49	0.43	2.61	0.14	<0.02	0.4	0.64	3.26	0.64	<0.02	<0.02	<0.02
	03 May 2022	0066_SW014_220503	Normal	EM2208151	3.14	1.27	7.38	0.85	0.88	4.24	0.19	<0.02	0.8	1.17	6.00	1.07	0.03	<0.02	<0.02
	16 Nov 2022	0066_SW014_221116	Normal	EM2223006	4.89	0.68	6.84	0.34	0.35	1.95	0.13	<0.02	0.3	0.40	2.46	0.43	0.03	<0.02	<0.02
	24 May 2023	0066_QC104_230524	Field_D	EM2309599	2.93	0.75	5.17	0.38	0.41	2.24	0.11	<0.02	0.2	0.53	2.56	0.48	0.03	<0.02	<0.02
		0066_QC204_230524	Interlab_D	993983	2.8	0.94	4.9	0.38	0.55	2.1	0.15	<0.01	0.29	0.61	2.3	0.56	0.03	<0.01	<0.01
		0066_SW014_230524	Normal	EM2309600	2.83	0.72	4.95	0.31	0.31	2.12	0.10	<0.02	0.4	0.38	2.83	0.48	0.03	<0.02	<0.02
	05 Dec 2023	0066_SW014_231205	Normal	EM2321752	7.56	0.96	10.1	0.40	0.38	2.50	0.16	<0.02	0.2	0.50	2.70	0.49	0.06	<0.02	<0.02
SW015	21 Aug 2017	SW015_170821	Normal	559967	2.6	0.45	4.2	0.37	0.32	1.6	0.07	<0.01	0.36	0.5	2.4	0.28	0.02	<0.01	<0.01
	18 Nov 2019	0066_SW015_191118	Normal	EM1919718	36.9	3.39	46.8	1.04	1.24	9.88	0.71	<0.05	0.8	1.34	7.40	1.20	0.18	<0.05	<0.05
	19 May 2020	0066_SW015_200519	Normal	EM2008583	9.62	0.99	12.8	0.49	0.54	3.19	0.23	<0.02	0.3	0.52	2.94	0.50	0.08	<0.02	<0.02
	26 Nov 2020	0066_SW015_201126	Normal	EM2021043	3.60	0.50	4.96	0.18	0.21	1.36	0.09	<0.02	0.3	0.27	0.98	0.19	0.03	<0.02	<0.02
	30 Jun 2021	0066_SW015_210630	Normal	EM2112638	6.21	0.82	8.72	0.31	0.25	2.51	0.14	<0.02	0.3	0.38	1.83	0.36	0.05	<0.02	<0.02
	30 Nov 2021	0066_SW015_211130	Normal	EM2124215	2.31	0.66	4.07	0.23	0.31	1.76	0.07	<0.02	0.1	0.31	1.52	0.30	0.02	<0.02	<0.02
	03 May 2022	0066_SW015_220503	Normal	EM2208151	5.07	1.26	7.77	0.54	0.52	2.70	0.19	<0.02	0.4	0.69	3.07	0.51	0.08	<0.02	<0.02
	16 Nov 2022	0066_SW015_221116	Normal	EM2223006	1.95	0.34	2.76	0.12	0.12	0.81	0.05	<0.02	<0.1	0.13	0.66	0.12	<0.02	<0.02	<0.02
	24 May 2023	0066_SW015_230524	Normal	EM2309600	1.94	0.54	3.37	0.16	0.19	1.43	0.06	<0.02	0.2	0.17	1.14	0.16	0.03	<0.02	<0.02
	05 Dec 2023	0066_SW015_231205	Normal	EM2321752	2.44	0.58	3.79	0.18	0.20	1.35	0.08	<0.02	<0.1	0.20	1.02	0.20	0.03	<0.02	<0.02
SW016	21 Aug 2017	Q203_170821	Interlab_D	EM1711532	3.11	0.95	4.9	0.35	0.31	1.79	0.11	<0.02	0.3	0.39	1.84	0.3	0.04	<0.02	<0.02
		QC103_170821	Field_D	559967	3.9	1	6.3	0.44	0.43	2.4	0.13	<0.01	0.34	0.46	2.1	0.34	0.05	0.01	<0.01
		SW016_170821	Normal	559967	3.4	0.9	5.5	0.4	0.38	2.1	0.12	<0.01	0.3	0.38	1.9	0.3	0.04	<0.01	<0.01
	18 Nov 2019	0066_SW016_191118	Normal	EM1919718	1.39	0.54	2.66	0.24	0.23	1.27	0.07	<0.02	0.2	0.29	1.32	0.18	<0.02	<0.02	<0.02
	19 May 2020	0066_SW016_200519	Normal	EM2008583	5.21	1.29	9.39	0.72	0.74	4.04	0.23	<0.02	0.4	0.56	3.14	0.51	0.06	<0.02	<0.02
	26 Nov 2020	0066_SW016_201126	Normal	EM2021043	3.26	0.67	4.77	0.28	0.23	1.51	0.11	<0.02	0.2	0.22	1.02	0.22	0.05	<0.02	<0.02
	30 Jun 2021	0066_SW016_210630	Normal	EM2112638	2.74	0.89	5.01	0.35	0.21	2.27	0.12	<0.02	0.2	0.31	1.42	0.28	0.04	<0.02	<0.02
	30 Nov 2021	0066_SW016_211130	Normal	EM2124215	1.95	0.78	3.47	0.22	0.26	1.52	0.09	<0.02	<0.1	0.24	1.12	0.24	0.03	<0.02	<0.02
	03 May 2022	0066_SW016_220503	Normal	EM2208151	5.83	1.26	8.26	0.43	0.41	2.43	0.18	0.04	<0.1	0.40	1.92	0.39	0.10	0.02	<0.02
	15 Nov 2022	0066_QC203_221115	Interlab_D	943130	1.8	0.29	2.54	0.08	0.11	0.74	0.05	<0.01	0.10	0.12	0.42	0.09	0.02	<0.01	<0.01
	16 Nov 2022	0066_QC103_221116	Field_D	EM2223006	1.71	0.27	2.40	0.11	0.10	0.69	0.04	<0.02	<0.1	0.10	0.42	0.08	<0.02	<0.02	<0.02
		0066_SW016_221116	Normal	EM2223006	1.92	0.29	2.62	0.12	0.11	0.70	0.04	<0.02	<0.1	0.10	0.48	0.10	<0.02	<0.02	<0.02
	24 May 2023	0066_QC102_230524	Field_D	EM2309599	2.50	0.62	3.80	0.20	0.19	1.30	0.09	<0.02	<0.1	0.16	0.75	0.17	0.04	<0.02	<0.02
		0066_QC202_230524	Interlab_D	993983	3.1	0.85	4.5	0.19	0.27	1.4	0.13	<0.01	0.25	0.17	0.84	0.19	0.04	<0.01	<0.01
		0066_SW016_230524	Normal	EM2309600	2.76	0.62	4.10	0.16	0.18	1.34	0.10	<0.02	0.1	0.14	0.76	0.17	0.04	<0.02	<0.02
	05 Dec 2023	0066_SW016_231205	Normal	EM2321752	3.28	0.75	4.69	0.19	0.19	1.41	0.15	<0.02	<0.1	0.13	0.76	0.21	0.06	<0.02	<0.02

Table B2 - Surface Water Analytical Results

					ons														
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					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
PFAS NHMRC 2019 Health Recreational Water						10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19													

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW017	21 Aug 2017	SW017_170821	Normal	559967	0.04	<0.01	0.06	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	18 Nov 2019	0066_SW017_191118	Normal	EM1919718	0.49	<0.05	0.49	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19 May 2020	0066_SW017_200519	Normal	EM2008583	0.05	<0.01	0.08	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW017_201126	Normal	EM2021043	0.28	0.06	0.51	0.06	0.05	0.23	<0.02	<0.02	<0.1	0.06	0.25	0.05	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW017_210701	Normal	EM2112638	0.05	<0.01	0.12	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_SW017_211130	Normal	EM2124215	0.13	0.02	0.20	0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_SW017_220503	Normal	EM2208151	0.04	<0.01	0.06	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW017_221116	Normal	EM2223006	0.07	0.02	0.12	0.03	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_QC103_230524	Field_D	EM2309599	0.06	<0.01	0.10	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC203_230524	Interlab_D	993983	0.07	<0.01	0.1	0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
		0066_SW017_230524	Normal	EM2309600	0.08	<0.01	0.11	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_SW017_231206	Normal	EM2321752	0.06	0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02
SW018	21 Aug 2017	SW018_170821	Normal	559967	0.57	0.02	0.79	0.06	0.03	0.22	0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01
	18 Nov 2019	0066_SW018_191118	Normal	EM1919718	0.16	0.05	1.50	0.32	0.26	1.34	0.02	<0.02	<0.1	0.06	0.38	0.05	<0.02	<0.02	<0.02
	21 May 2020	0066_SW018_200521	Normal	EM2008583	0.18	0.13	3.29	1.09	0.96	3.11	0.03	<0.02	<0.1	0.16	1.32	0.20	<0.02	<0.02	<0.02
	27 Nov 2020	0066_SW018_201127	Normal	EM2021043	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW018_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW018_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 May 2022	0066_SW018_220505	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW018_221116	Normal	EM2223006	0.17	0.04	0.77	0.11	0.09	0.60	<0.02	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW018_230526	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW018_231204	Normal	EM2321752	0.03	<0.01	0.10	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW019	21 Aug 2017	Q205_170821	Interlab_D	EM1711532	0.41	0.11	1.49	0.44	0.28	1.08	0.03	<0.02	0.1	0.13	0.56	0.09	<0.02	<0.02	<0.02
		QC105_170821	Field_D	559967	0.48	0.11	1.78	0.51	0.36	1.3	0.03	<0.01	0.11	0.15	0.56	0.11	<0.01	<0.01	<0.01
		SW019_170821	Normal	559967	0.45	0.1	1.85	0.51	0.36	1.4	0.03	<0.01	0.1	0.15	0.62	0.1	<0.01	<0.01	<0.01
	18 Nov 2019	0066_SW019_191118	Normal	EM1919718	0.70	0.22	3.42	1.19	0.81	2.72	0.06	<0.02	0.2	0.36	1.76	0.23	<0.02	<0.02	<0.02
	21 May 2020	0066_SW019_200521	Normal	EM2008583	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW019_201126	Normal	EM2021043	0.05	<0.01	0.14	0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_SW019_210630	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_SW019_211130	Normal	EM2124215	0.02	<0.01	0.06	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW019_220504	Normal	EM2208151	0.02	<0.01	0.08	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW019_221116	Normal	EM2223006	0.04	<0.01	0.14	0.09	0.02	0.10	<0.02	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_SW019_230525	Normal	EM2309600	0.02	<0.01	0.08	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW019_231204	Normal	EM2321752	0.02	<0.01	0.04	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW020	21 Aug 2017	SW020_170821	Normal	559967	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
	18 Nov 2019	0066_SW020_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW020_200521	Normal	EM2008583	0.01	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	27 Nov 2020	0066_SW020_201127	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW020_210701	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW020_211201	Normal	EM2124215	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW020_220504	Normal	EM2208151	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	15 Nov 2022	0066_QC208_221115	Interlab_D	943130	<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
	18 Nov 2022	0066_QC108_221118	Field_D	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW020_221118	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW020_230526	Normal	EM2309600	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW020_231205	Normal	EM2321752	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Table B2 - Surface Water Analytical Results

	PFAS concentrations (µg/L)														
	PFAS concentrations (µg/L)														
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
LOR	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
PFAS NHMRC 2019 Health Recreational Water		10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19													

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW021	24 Aug 2017	QC107_170824	Field_D	560227	0.05	<0.01	0.13	<0.01	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01
		QC207_170824	Interlab_D	EM1711508	0.04	<0.01	0.12	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		SW021_170824	Normal	560227	0.05	<0.01	0.13	<0.01	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01
	19 Nov 2019	0066_SW021_191119	Normal	EM1919718	0.03	0.03	0.09	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_SW021_200519	Normal	EM2008583	0.05	<0.01	0.09	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_SW021_201125	Normal	EM2021043	0.04	0.04	0.16	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW021_210701	Normal	EM2112638	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW021_221116	Normal	EM2223006	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	23 May 2023	0066_SW021_230523	Normal	EM2309600	0.06	<0.01	0.18	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW021_231205	Normal	EM2321752	0.06	<0.01	0.16	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW022	24 Aug 2017	SW022_170824	Normal	560227	<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
	19 Nov 2019	0066_QC104_191119	Field_D	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC204_191119	Interlab_D	689174	<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
		0066_SW022_191119	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_SW022_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	27 Nov 2020	0066_SW022_201127	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW022_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_QC109_211201	Field_D	EM2124215	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC209_211201	Interlab_D	849156	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW022_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_QC105_220503	Field_D	EM2208151	0.08	<0.01	0.10	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC205_220503	Interlab_D	886234	0.05	<0.01	0.07	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW022_220503	Normal	EM2208151	0.07	<0.01	0.09	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW022_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_SW022_230525	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_SW022_231206	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW023	24 Aug 2017	SW023_170824	Normal	560227	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
	18 Nov 2019	0066_SW023_191118	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_SW023_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_SW023_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW023_210701	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_QC105_211130	Field_D	EM2124215	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC205_211130	Interlab_D	849156	0.04	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW023_211130	Normal	EM2124215	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_QC106_220503	Field_D	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC206_220503	Interlab_D	886234	<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
		0066_SW023_220503	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW023_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_SW023_230525	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW023_231205	Normal	EM2321752	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW024	24 Aug 2017	SW024_170824	Normal	560227	<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
	19 Nov 2019	0066_SW024_191119	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_SW024_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW024_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW024_210701	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_QC104_211130	Field_D	EM2124215	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC204_211130	Interlab_D	849156	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW024_211130	Normal	EM2124215	0.05	<0.01	0.07	<0.02	<0.02	0.02	<0								

Table B2 - Surface Water Analytical Results

					PFAS concentrations															
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR					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	0.001
PFAS NHMRC 2019 Health Recreational Water						10	2													
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07													
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19														
Location Code	Date	Field ID	Sample Type	Lab Report Number																
SW027	28 Aug 2017	QC109_170828	Field_D	560833	0.3	<0.01	0.37	<0.01	<0.01	0.07	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	
		QC209_170828	Interlab_D	EM1711671	0.19	<0.01	0.24	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		SW027_170828	Normal	560833	0.28	<0.01	0.34	<0.01	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	16 Feb 2018	SW027_180216	Normal	585592	0.023	0.001	0.028	<0.001	<0.001	0.005	<0.001	<0.001	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	
	18 Nov 2019	0066_SW027_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	19 May 2020	0066_SW027_200519	Normal	EM2008583	0.74	0.02	1.08	0.02	0.05	0.34	0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_SW027_201126	Normal	EM2021043	0.06	<0.01	0.09	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Jul 2021	0066_SW027_210701	Normal	EM2112638	0.15	<0.01	0.24	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_SW027_211130	Normal	EM2124215	0.12	<0.01	0.15	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_SW027_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	18 Nov 2022	0066_SW027_221118	Normal	EM2223006	0.15	<0.01	0.19	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 May 2023	0066_SW027_230526	Normal	EM2309600	0.17	<0.02	0.28	<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
05 Dec 2023	0066_SW027_231205	Normal	EM2321752	0.13	<0.01	0.16	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
SW028	28 Aug 2017	SW028_170828	Normal	560833	0.32	<0.01	0.38	<0.01	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	18 Nov 2019	0066_SW028_191118	Normal	EM1919718	0.21	<0.05	0.29	<0.05	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	19 May 2020	0066_SW028_200519	Normal	EM2008583	1.09	0.03	1.51	0.02	0.05	0.42	0.03	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	
	26 Nov 2020	0066_QC105_201126	Field_D	EM2021043	0.20	<0.01	0.26	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC205_201126	Interlab_D	760007	0.37	0.01	0.44	<0.01	<0.01	0.07	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	
		0066_SW028_201126	Normal	EM2021043	0.21	<0.01	0.28	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Jul 2021	0066_QC105_210701	Field_D	EM2112638	0.19	<0.01	0.31	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC205_210701	Interlab_D	807707	0.32	<0.01	0.44	<0.01	<0.01	0.12	<0.01	<0.01	<0.05	0.02	0.01	<0.01	<0.01	<0.01	<0.01	
		0066_SW028_210701	Normal	EM2112638	0.17	<0.01	0.29	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_QC103_211130	Field_D	EM2124215	0.04	<0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC203_211130	Interlab_D	849156	0.08	<0.01	0.11	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
		0066_SW028_211130	Normal	EM2124215	0.10	<0.01	0.13	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	04 May 2022	0066_SW028_220504	Normal	EM2208151	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	18 Nov 2022	0066_SW028_221118	Normal	EM2223006	0.13	<0.01	0.16	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	26 May 2023	0066_SW028_230526	Normal	EM2309600	0.73	0.02	1.06	0.02	0.02	0.33	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_SW028_231205	Normal	EM2321752	0.33	<0.01	0.37	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	SW029	28 Aug 2017	SW029_170828	Normal	560833	0.19	<0.01	0.27	<0.01	<0.01	0.08	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
19 Nov 2019		0066_SW029_191119	Normal	EM1919718	2.52	0.13	2.94	0.10	0.06	0.42	0.04	<0.02	0.2	0.40	0.65	0.12	0.06	<0.02	<0.02	
19 May 2020		0066_SW029_200519	Normal	EM2008583	18.2	0.34	19.6	0.27	0.30	1.37	0.21	0.25	0.3	0.97	1.91	0.37	0.12	0.03	0.10	
26 Nov 2020		0066_SW029_201126	Normal	EM2021043	3.15	0.17	3.75	0.09	0.04	0.60	0.06	0.05	<0.1	0.44	0.62	0.13	0.06	<0.02	0.06	
01 Jul 2021		0066_SW029_210701	Normal	EM2112638	0.07	<0.01	0.11	0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
04 May 2022		0066_SW029_220504	Normal	EM2208151	0.08	0.01	0.10	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	0.03	0.02	<0.02	<0.02	<0.02	<0.02	
15 Nov 2022		0066_QC205_221115	Interlab_D	943130	0.20	<0.01	0.28	0.01	0.01	0.08	<0.01	<0.01	<0.05	0.04	0.06	0.01	<0.01	<0.01	<0.01	
17 Nov 2022		0066_QC105_221117	Field_D	EM2223006	0.19	<0.01	0.27	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02	
		0066_SW029_221117	Normal	EM2223006	0.22	<0.01	0.30	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	
29 May 2023		0066_SW029_230529	Normal	EM2309600	0.78	0.03	0.90	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	0.09	0.09	0.04	<0.02	<0.02		

Table B2 - Surface Water Analytical Results

					ons														
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
LOR					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
PFAS NHMRC 2019 Health Recreational Water						10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19													
Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW057	16 Mar 2018	0066_SW057_180316	Normal	589770	5.4	1.3	10.5	0.82	1	5.1	0.28	<0.001	1.1	1.1	6.2	1.2	0.031	0.005	<0.001
	18 Nov 2019	0066_SW057_191118	Normal	EM1919718	12.1	2.96	21.3	2.00	1.81	9.16	0.37	<0.05	2.3	3.34	17.5	2.02	0.06	<0.05	<0.05
	19 May 2020	0066_SW057_200519	Normal	EM2008583	3.01	0.85	6.29	0.73	0.70	3.28	0.16	<0.02	0.7	1.09	6.30	0.74	0.02	<0.02	<0.02
	26 Nov 2020	0066_QC103_201126	Field_D	EM2021043	2.11	0.51	4.01	0.33	0.32	1.90	0.08	<0.02	0.4	0.45	2.36	0.38	<0.02	<0.02	<0.02
		0066_QC203_201126	Interlab_D	760007	2.5	0.64	5	0.33	0.38	2.5	0.14	<0.01	0.38	0.50	2.9	0.45	0.02	<0.01	<0.01
		0066_SW057_201126	Normal	EM2021043	2.09	0.53	3.91	0.34	0.27	1.82	0.09	<0.02	0.4	0.47	2.44	0.42	<0.02	<0.02	<0.02
	30 Jun 2021	0066_SW057_210630	Normal	EM2112638	2.74	0.69	5.22	0.45	0.47	2.48	0.12	<0.02	0.6	0.76	3.53	0.65	<0.02	<0.02	<0.02
	30 Nov 2021	0066_SW057_211130	Normal	EM2124215	3.75	0.76	6.36	0.43	0.48	2.61	0.14	<0.02	0.3	0.61	3.18	0.62	<0.02	<0.02	<0.02
	03 May 2022	0066_SW057_220503	Normal	EM2208151	15.7	1.83	20.1	0.74	0.60	4.40	0.42	<0.03	0.4	1.01	4.85	1.01	0.13	<0.03	<0.03
	16 Nov 2022	0066_SW057_221116	Normal	EM2223006	3.32	0.62	5.44	0.37	0.35	2.12	0.11	<0.02	0.2	0.44	2.21	0.41	0.02	<0.02	<0.02
	24 May 2023	0066_SW057_230524	Normal	EM2309600	4.64	0.82	7.36	0.29	0.36	2.72	0.15	<0.02	0.4	0.40	2.98	0.38	0.04	<0.02	<0.02
	05 Dec 2023	066_QC209_231205	Interlab_D	1051767	3.9	0.87	6.9	0.32	0.52	3.0	0.19	<0.01	0.29	0.47	3.5	0.39	0.02	<0.01	<0.01
		0066_QC109_231205	Field_D	EM2321752	2.82	0.76	5.18	0.33	0.43	2.36	0.14	<0.02	0.2	0.43	1.88	0.47	0.02	<0.02	<0.02
		0066_SW057_231205	Normal	EM2321752	2.90	0.79	5.23	0.39	0.39	2.33	0.14	<0.02	0.2	0.42	2.32	0.55	0.04	<0.02	<0.02
SW071	21 Nov 2019	0066_DOCK_191121	Normal	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW071_200521	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_SW071_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW071_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_SW071_211202	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_QC208_220504	Interlab_D	886234	<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
	04 May 2022	0066_QC108_220504	Field_D	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_SW071_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_SW071_221117	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	23 May 2023	0066_SW071_230523	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW071_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW072	21 May 2020	0066_SW072_200521	Normal	EM2008583	2.83	0.11	4.65	0.05	0.16	1.82	0.13	<0.02	<0.1	0.16	0.36	0.08	<0.02	<0.02	<0.02
	18 Nov 2022	0066_SW072_221118	Normal	EM2223006	1.77	0.07	2.83	0.03	0.06	1.06	0.07	<0.02	<0.1	0.10	0.18	0.04	<0.02	<0.02	<0.02
	26 May 2023	0066_SW072_230526	Normal	EM2309600	0.12	<0.01	0.15	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW073	27 Nov 2020	0066_SW073_201127	Normal	EM2021043	0.05	<0.01	0.08	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW073_210702	Normal	EM2112638	0.02	<0.01	0.08	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW073_211201	Normal	EM2124215	0.21	0.01	0.30	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_QC207_220504	Interlab_D	886234	0.48	0.06	1.32	0.24	0.17	0.84	0.02	<0.01	0.08	0.11	0.41	0.04	<0.01	<0.01	<0.01
		0066_QC107_220504	Field_D	EM2208151	0.38	0.05	1.08	0.23	0.13	0.70	0.02	<0.02	<0.1	0.10	0.36	0.04	<0.02	<0.02	<0.02
		0066_SW073_220504	Normal	EM2208151	0.42	0.05	1.20	0.22	0.17	0.78	0.02	<0.02	<0.1	0.10	0.36	0.04	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW073_221116	Normal	EM2223006	0.12	<0.01	0.21	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_SW073_230525	Normal	EM2309600	0.04	<0.01	0.11	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW073_231204	Normal	EM2321752	0.05	<0.01	0.07	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Table B2 - Surface Water Analytical Results

					PFAS concentrations														
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					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
PFAS NHMRC 2019 Health Recreational Water						10	2												
PFAS NEMP 2.0 Table 1 Health Drinking Water						0.56	0.07												
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19													
Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW074	26 Nov 2020	0066_SW074_201126	Normal	EM2021043	0.06	<0.01	0.27	<0.02	<0.02	0.21	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW074_210702	Normal	EM2112638	0.06	0.01	0.24	0.05	<0.02	0.18	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW074_211201	Normal	EM2124215	0.10	0.02	0.61	0.05	0.06	0.51	<0.02	<0.02	<0.1	0.04	0.10	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW074_220504	Normal	EM2208151	0.07	0.01	0.20	<0.02	<0.02	0.13	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW074_221117	Normal	EM2223006	0.05	<0.01	0.14	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_SW074_230525	Normal	EM2309600	0.06	<0.01	0.29	<0.02	0.02	0.23	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW074_231204	Normal	EM2321752	0.04	<0.01	0.13	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW075	27 Nov 2020	0066_SW075_201127	Normal	EM2021043	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW075_210702	Normal	EM2112638	0.02	<0.01	0.05	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW075_211201	Normal	EM2124215	0.04	<0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW075_220504	Normal	EM2208151	0.02	<0.01	0.05	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW075_221116	Normal	EM2223006	0.03	<0.01	0.07	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW075_230526	Normal	EM2309600	0.02	<0.01	0.03	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_QC107_231205	Field_D	EM2321752	0.07	<0.01	0.10	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW076	27 Nov 2020	0066_SW076_201127	Normal	EM2021043	0.05	<0.01	0.16	<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Jul 2021	0066_SW076_210701	Normal	EM2112638	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW076_211201	Normal	EM2124215	0.06	<0.01	0.17	<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_SW076_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW076_221116	Normal	EM2223006	0.03	<0.01	0.11	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_SW076_230526	Normal	EM2309600	0.01	<0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_SW076_231205	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
SW077	27 Nov 2020	0066_SW077_201127	Normal	EM2021043	0.26	0.10	2.17	0.70	0.35	1.91	0.03	<0.02	<0.1	0.10	0.74	0.10	<0.02	<0.02	<0.02
	02 Jul 2021	0066_SW077_210702	Normal	EM2112638	0.15	0.10	1.83	0.57	0.42	1.68	0.03	<0.02	<0.1	0.12	0.66	0.13	<0.02	<0.02	<0.02
	01 Dec 2021	0066_SW077_211201	Normal	EM2124215	0.13	0.10	2.45	0.71	0.65	2.32	0.03	<0.02	<0.1	0.15	0.88	0.15	<0.02	<0.02	<0.02
	04 May 2022	0066_SW077_220504	Normal	EM2208151	<0.01	<0.01	0.01	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_SW077_221116	Normal	EM2223006	0.22	0.04	0.84	0.12	0.09	0.62	<0.02	<0.02	<0.1	0.02	0.11	0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_SW077_230525	Normal	EM2309600	0.05	0.01	0.21	0.03	0.02	0.16	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_SW077_231204	Normal	EM2321752	0.02	<0.01	0.10	0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
SW078	26 Nov 2020	0066_SW078_201126	Normal	EM2021043	0.08	<0.01	0.15	0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_QC106_210702	Field_D	EM2112638	0.05	0.01	0.17	0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02
		0066_QC206_210702	Interlab_D	807703	0.08	0.01	0.2	0.02	0.02	0.12	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01
		0066_SW078_210702	Normal	EM2112638	0.06	0.01	0.18	0.02	0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_SW078_211202	Normal	EM2124215	0.14	0.03	0.40	0.05	0.04	0.26	<0.02	<0.02	<0.1	0.02	0.06	0.02	<0.02	<0.02	<0.02
	05 May 2022	0066_SW078_220505	Normal	EM2208151	<0.01	<0.01	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	15 Nov 2022	0066_QC204_221115	Interlab_D	943130	0.05	<0.01	0.09	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01
	16 Nov 2022	0066_QC104_221116	Field_D	EM2223006	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		0066_SW078_221116	Normal	EM2223006	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	23 May 2023	0066_SW078_230523	Normal	EM2309600	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_QC101_231204	Field_D	EM2321752	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		066_QC201_231204	Interlab_D	1051767	0.03	<0.01	0.05	<0.01	<0.01	0.04	0.05	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		0066_SW078_231204	Normal	EM2321752	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Table B2 - Surface Water Analytical Results

	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonylamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonylamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonylamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonylamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water															
PFAS NEMP 2.0 Table 1 Health Drinking Water															
PFAS NEMP 2.0 Table 5 Freshwater 99%															

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW001	17 Aug 2017	SW001_180817	Normal	559306	<0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.456
	18 Nov 2019	0066_SW001_191118	Normal	EM19191718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW001_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.09
	26 Nov 2020	0066_SW001_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.02
	02 Jul 2021	0066_SW001_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW001_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_SW001_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	17 Nov 2022	0066_SW001_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.16
	24 May 2023	0066_SW001_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.03
	06 Dec 2023	0066_SW001_231206	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.03
SW002	17 Aug 2017	SW002_180817	Normal	559306	<0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.017
	20 Nov 2019	0066_SW002_191120	Normal	EM1919885	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW002_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.23
	26 Nov 2020	0066_SW002_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.07
	02 Jul 2021	0066_SW002_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW002_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_SW002_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.03
	17 Nov 2022	0066_SW002_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.31
	24 May 2023	0066_SW002_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.02
SW003	17 Aug 2017	SW003_180817	Normal	559306	0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.158
	14 Nov 2019	0066_SW003_191114	Normal	EM1919512	0.06	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	0.06
	21 May 2020	0066_QC104_200521	Field_D	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
		0066_QC204_200521	Interlab_D	721332	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
		0066_SW003_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_SW003_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	02 Jul 2021	0066_SW003_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	02 Dec 2021	0066_SW003_211202	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	05 May 2022	0066_SW003_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	17 Nov 2022	0066_SW003_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	23 May 2023	0066_SW003_230523	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.02
SW004	17 Aug 2017	SW004_180817	Normal	559306	0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.603
	14 Nov 2019	0066_SW004_191114	Normal	EM1919512	0.08	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	5.71
	21 May 2020	0066_SW004_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	36.4
	26 Nov 2020	0066_QC102_201126	Field_D	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.15
		0066_QC202_201126	Interlab_D	760007	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.14
		0066_SW004_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.11
	02 Jul 2021	0066_SW004_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.55
	02 Dec 2021	0066_SW004_211202	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	28.1
	04 May 2022	0066_SW004_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	1.56
	17 Nov 2022	0066_SW004_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	9.92
	24 May 2023	0066_SW004_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.28
	05 Dec 2023	0066_SW004_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	1.13

Table B2 - Surface Water Analytical Results

					Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water																			
PFAS NEMP 2.0 Table 1 Health Drinking Water																			
PFAS NEMP 2.0 Table 5 Freshwater 99%																			

Location Code	Date	Field ID	Sample Type	Lab Report Number	<0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.03
SW005	18 Aug 2017	QC101_170818	Field_D	559306	<0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.03
		SW005_170818	Normal	559306	<0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.045
	18 Nov 2019	0066_SW005_191118	Normal	EM19191718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.10
	21 May 2020	0066_SW005_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.48
	26 Nov 2020	0066_SW005_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Jun 2021	0066_SW005_210630	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW005_211202	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.23
	04 May 2022	0066_SW005_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	17 Nov 2022	0066_SW005_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	24 May 2023	0066_SW005_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	06 Dec 2023	0066_SW005_231206	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.34
SW006	17 Aug 2017	SW006_180817	Normal	559306	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.636
	20 Nov 2019	0066_SW006_191120	Normal	EM1919885	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW006_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
	26 Nov 2020	0066_SW006_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	30 Jun 2021	0066_SW006_210630	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW006_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	04 May 2022	0066_SW006_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	17 Nov 2022	0066_SW006_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11
	24 May 2023	0066_QC105_230524	Field_D	EM2309599	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
		0066_QC205_230524	Interlab_D	993983	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
		0066_SW006_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02
SW007	17 Aug 2017	SW007_180817	Normal	559306	<0.001	<0.001	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.021
	18 Nov 2019	0066_SW007_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW007_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_SW007_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Jul 2021	0066_QC107_210702	Field_D	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_QC207_210702	Interlab_D	807703	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
		0066_SW007_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_SW007_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	24 May 2023	0066_SW007_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02
	04 Dec 2023	0066_SW007_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
SW009	17 Aug 2017	SW009_180817	Normal	559306	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.023
	18 Nov 2019	0066_SW009_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.95
	21 May 2020	0066_SW009_300521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	27 Nov 2020	0066_SW009_301127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Jul 2021	0066_SW009_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW009_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_SW009_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_SW009_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	26 May 2023	0066_SW009_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02
	05 Dec 2023	0066_SW009_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01

Table B2 - Surface Water Analytical Results

	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water															
PFAS NEMP 2.0 Table 1 Health Drinking Water															
PFAS NEMP 2.0 Table 5 Freshwater 99%															

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW010	17 Aug 2017	SW010_180817	Normal	559306	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.036
	19 Nov 2019	0066_SW010_191119	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.43
	21 May 2020	0066_QC105_200521	Field_D	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.16
		0066_QC205_200521	Interlab_D	721332	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	0.12
		0066_SW010_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.14
	27 Nov 2020	0066_SW010_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.82
	02 Jul 2021	0066_QC108_210702	Field_D	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.18
		0066_QC208_210702	Interlab_D	807707	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	0.24
		0066_SW010_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.19
	01 Dec 2021	0066_SW010_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.69
	04 May 2022	0066_SW010_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.17
	16 Nov 2022	0066_SW010_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.17
	26 May 2023	0066_SW010_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_SW010_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.38
SW014	21 Aug 2017	SW014_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	11.57
	18 Nov 2019	0066_SW014_191118	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	7.06
	19 May 2020	0066_SW014_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	16.9
	26 Nov 2020	0066_SW014_301126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	17.1
	30 Nov 2021	0066_SW014_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	13.7
	03 May 2022	0066_SW014_220503	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	19.6
	16 Nov 2022	0066_SW014_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	12.0
	24 May 2023	0066_QC104_230524	Field_D	EM2309599	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	10.6
		0066_QC204_230524	Interlab_D	993983	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	10.83
		0066_SW014_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	10.5
	05 Dec 2023	0066_SW014_231205	Normal	EM2321752	<0.02	<0.02	<0.05	0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.02	<0.05	<0.05	<0.05	16.0
SW015	21 Aug 2017	SW015_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	8.97
	18 Nov 2019	0066_SW015_191118	Normal	EM1919718	<0.05	<0.05	<0.12	0.08	<0.12	<0.12	<0.12	<0.12	0.26	<0.05	<0.05	<0.05	<0.05	<0.05	64.4
	19 May 2020	0066_SW015_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	19.4
	26 Nov 2020	0066_SW015_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	7.71
	30 Jun 2021	0066_SW015_210630	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	13.2
	30 Nov 2021	0066_SW015_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	7.59
	03 May 2022	0066_SW015_220503	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	<0.02	<0.05	<0.05	<0.05	15.2
	16 Nov 2022	0066_SW015_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.02	<0.05	<0.05	<0.05	4.34
	24 May 2023	0066_SW015_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	6.02
	05 Dec 2023	0066_SW015_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	6.28
SW016	21 Aug 2017	Q203_170821	Interlab_D	EM1711532	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.12	<0.02	<0.05	<0.05	<0.05	<0.05	9.61
		QC103_170821	Field_D	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	11.6
		SW016_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	10.22
	18 Nov 2019	0066_SW016_191118	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.75
	19 May 2020	0066_SW016_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.14	<0.02	<0.05	<0.05	<0.05	<0.05	17.0
	26 Nov 2020	0066_SW016_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.05	<0.02	<0.05	<0.05	<0.05	<0.05	7.82
	30 Jun 2021	0066_SW016_210630	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.06	<0.02	<0.05	<0.05	<0.05	<0.05	8.89
	30 Nov 2021	0066_SW016_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	6.45
	03 May 2022	0066_SW016_220503	Normal	EM2208151	<0.02	<0.02	<0.05	0.03	<0.05	<0.05	<0.05	<0.05	<0.05	0.64	0.06	<0.05	<0.05	<0.05	14.1
	15 Nov 2022	0066_QC203_221115	Interlab_D	943130	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	3.84
	16 Nov 2022	0066_QC103_221116	Field_D	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.04	<0.02	<0.05	<0.05	<0.05	<0.05	3.56
		0066_SW016_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	0.06	<0.02	<0.05	<0.05	<0.05	<0.05	3.92
	24 May 2023	0066_QC102_230524	Field_D	EM2309599	<0.02	<0.02</													

Table B2 - Surface Water Analytical Results

	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water															
PFAS NEMP 2.0 Table 1 Health Drinking Water															
PFAS NEMP 2.0 Table 5 Freshwater 99%															

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW017	21 Aug 2017	SW017_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	18 Nov 2019	0066_SW017_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.49
	19 May 2020	0066_SW017_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	26 Nov 2020	0066_SW017_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.04
	01 Jul 2021	0066_SW017_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15
	30 Nov 2021	0066_SW017_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31
	03 May 2022	0066_SW017_220503	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	16 Nov 2022	0066_SW017_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23
	24 May 2023	0066_QC103_230524	Field_D	EM2309599	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
		0066_QC203_230524	Interlab_D	993983	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.13
		0066_SW017_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11
	06 Dec 2023	0066_SW017_231206	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16
SW018	21 Aug 2017	SW018_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.97
	18 Nov 2019	0066_SW018_191118	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.64
	21 May 2020	0066_SW018_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	7.18
	27 Nov 2020	0066_SW018_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Jul 2021	0066_SW018_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW018_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 May 2022	0066_SW018_220505	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	16 Nov 2022	0066_SW018_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.14
	26 May 2023	0066_SW018_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 Dec 2023	0066_SW018_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
SW019	21 Aug 2017	Q205_170821	Interlab_D	EM1711532	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.23
		QC105_170821	Field_D	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	3.72
		SW019_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	3.82
	18 Nov 2019	0066_SW019_191118	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	8.25
	21 May 2020	0066_SW019_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	26 Nov 2020	0066_SW019_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16
	30 Jun 2021	0066_SW019_210630	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	30 Nov 2021	0066_SW019_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06
	04 May 2022	0066_SW019_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	16 Nov 2022	0066_SW019_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.33
	25 May 2023	0066_SW019_230525	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	04 Dec 2023	0066_SW019_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04
SW020	21 Aug 2017	SW020_170821	Normal	559967	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	18 Nov 2019	0066_SW020_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW020_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	27 Nov 2020	0066_SW020_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Jul 2021	0066_SW020_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_SW020_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	04 May 2022	0066_SW020_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	15 Nov 2022	0066_QC208_221115	Interlab_D	943130	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	18 Nov 2022	0066_QC108_221118	Field_D	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_SW020_221118	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 May 2023	0066_SW020_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02
	05 Dec 2023	0066_SW020_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01

Table B2 - Surface Water Analytical Results

	Perfluorodecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water															
PFAS NEMP 2.0 Table 1 Health Drinking Water															
PFAS NEMP 2.0 Table 5 Freshwater 99%															

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW021	24 Aug 2017	QC107_170824	Field_D	560227	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15
		QC207_170824	Interlab_D	EM1711508	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.12
		SW021_170824	Normal	560227	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15
	19 Nov 2019	0066_SW021_191119	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.12
	19 May 2020	0066_SW021_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.09
	25 Nov 2020	0066_SW021_201125	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.20
	01 Jul 2021	0066_SW021_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.05
	16 Nov 2022	0066_SW021_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.02
	23 May 2023	0066_SW021_230523	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.18
05 Dec 2023	0066_SW021_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.16	
SW022	24 Aug 2017	SW022_170824	Normal	560227	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	19 Nov 2019	0066_QC104_191119	Field_D	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
		0066_QC204_191119	Interlab_D	689174	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.1
		0066_SW022_191119	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_SW022_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	27 Nov 2020	0066_SW022_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	02 Jul 2021	0066_SW022_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	01 Dec 2021	0066_QC109_211201	Field_D	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.01
		0066_QC209_211201	Interlab_D	849156	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.1
		0066_SW022_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_QC105_220503	Field_D	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.10
		0066_QC205_220503	Interlab_D	886234	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.1
		0066_SW022_220503	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.09
	16 Nov 2022	0066_SW022_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	25 May 2023	0066_SW022_230525	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	06 Dec 2023	0066_SW022_231206	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	SW023	24 Aug 2017	SW023_170824	Normal	560227	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01
18 Nov 2019		0066_SW023_191118	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
19 May 2020		0066_SW023_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
25 Nov 2020		0066_SW023_201125	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
01 Jul 2021		0066_SW023_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
30 Nov 2021		0066_QC105_211130	Field_D	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.02
		0066_QC205_211130	Interlab_D	849156	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.1
		0066_SW023_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.03
03 May 2022		0066_QC106_220503	Field_D	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
		0066_QC206_220503	Interlab_D	886234	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.1
		0066_SW023_220503	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
16 Nov 2022		0066_SW023_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
25 May 2023		0066_SW023_230525	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
05 Dec 2023		0066_SW023_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.02
SW024		24 Aug 2017	SW024_170824	Normal	560227	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01
	19 Nov 2019	0066_SW024_191119	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	19 May 2020	0066_SW024_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_SW024_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	01 Jul 2021	0066_SW024_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01
	30 Nov 2021	0066_QC104_211130	Field_D	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.01
		0066_QC204_211130	Interlab_D	849156	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.1
		0066_SW024_211130	Normal	EM21242															

Table B2 - Surface Water Analytical Results

					Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer Sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer Sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water																			
PFAS NEMP 2.0 Table 1 Health Drinking Water																			
PFAS NEMP 2.0 Table 5 Freshwater 99%																			

Location Code	Date	Field ID	Sample Type	Lab Report Number															
SW027	28 Aug 2017	QC109_170828	Field_D	560833	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.38
		QC209_170828	Interlab_D	EM1711671	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	0.24
		SW027_170828	Normal	560833	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	0.34
	16 Feb 2018	SW027_180216	Normal	585592	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.03
	18 Nov 2019	0066_SW027_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	19 May 2020	0066_SW027_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.25
	26 Nov 2020	0066_SW027_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09
	01 Jul 2021	0066_SW027_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24
	30 Nov 2021	0066_SW027_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15
	04 May 2022	0066_SW027_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	18 Nov 2022	0066_SW027_221118	Normal	EM2223006	<0.02	Normal	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.19
	26 May 2023	0066_SW027_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28
05 Dec 2023	0066_SW027_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16	
SW028	28 Aug 2017	SW028_170828	Normal	560833	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.38
	18 Nov 2019	0066_SW028_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.29
	19 May 2020	0066_SW028_200519	Normal	EM2008583	<0.02	Normal	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.70
	26 Nov 2020	0066_QC105_201126	Field_D	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.26
		0066_QC205_201126	Interlab_D	760007	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.47
		0066_SW028_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28
	01 Jul 2021	0066_QC105_210701	Field_D	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31
		0066_QC205_210701	Interlab_D	807707	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.47
		0066_SW028_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29
	30 Nov 2021	0066_QC103_211130	Field_D	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
		0066_QC203_211130	Interlab_D	849156	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.11
		0066_SW028_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	04 May 2022	0066_SW028_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	18 Nov 2022	0066_SW028_221118	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16
	26 May 2023	0066_SW028_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.15
	05 Dec 2023	0066_SW028_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37
SW029	28 Aug 2017	SW029_170828	Normal	560833	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.28
	19 Nov 2019	0066_SW029_191119	Normal	EM1919718	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	2.08	0.28	<0.05	7.06
	19 May 2020	0066_SW029_200519	Normal	EM2008583	<0.02	<0.02	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	4.18	0.89	<0.05	29.9
	26 Nov 2020	0066_SW029_201126	Normal	EM2021043	<0.02	0.03	<0.05	0.04	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	1.34	0.20	0.05	7.13
	01 Jul 2021	0066_SW029_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	04 May 2022	0066_SW029_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16
	15 Nov 2022	0066_QC205_221115	Interlab_D	943130	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.06	<		

Table B2 - Surface Water Analytical Results

					Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water																			
PFAS NEMP 2.0 Table 1 Health Drinking Water																			
PFAS NEMP 2.0 Table 5 Freshwater 99%																			

Location Code	Date	Field ID	Sample Type	Lab Report Number	<0.001	<0.001	0.001	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	23.552
SW057	16 Mar 2018	0066_SW057_180316	Normal	589770	<0.001	<0.001	0.001	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	23.552
	18 Nov 2019	0066_SW057_191118	Normal	EM1919718	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	53.6
	19 May 2020	0066_SW057_200519	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	17.6
	26 Nov 2020	0066_QC103_201126	Field_D	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	8.84
		0066_QC203_201126	Interlab_D	760007	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	10.81
		0066_SW057_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	8.87
	30 Jun 2021	0066_SW057_210630	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	12.5
	30 Nov 2021	0066_SW057_211130	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	12.9
	03 May 2022	0066_SW057_220503	Normal	EM2208151	<0.03	<0.03	<0.08	<0.03	<0.08	<0.08	<0.08	<0.08	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	31.1
	16 Nov 2022	0066_SW057_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.2
	24 May 2023	0066_SW057_230524	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	13.2
	05 Dec 2023	066_QC209_231205	Interlab_D	1051767	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	13.56
		0066_QC109_231205	Field_D	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	9.84
		0066_SW057_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.5
SW071	21 Nov 2019	0066_DOCK_191121	Normal	EM1919885	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	21 May 2020	0066_SW071_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	26 Nov 2020	0066_SW071_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Jul 2021	0066_SW071_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	02 Dec 2021	0066_SW071_211202	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	03 May 2022	0066_QC208_220504	Interlab_D	886234	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1
	04 May 2022	0066_QC108_220504	Field_D	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
		0066_SW071_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	17 Nov 2022	0066_SW071_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	23 May 2023	0066_SW071_230523	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 Dec 2023	0066_SW071_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
SW072	21 May 2020	0066_SW072_200521	Normal	EM2008583	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.70
	18 Nov 2022	0066_SW072_221118	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.38
	26 May 2023	0066_SW072_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15
SW073	27 Nov 2020	0066_SW073_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
	02 Jul 2021	0066_SW073_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	01 Dec 2021	0066_SW073_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31
	03 May 2022	0066_QC207_220504	Interlab_D	886234	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	2.59
		0066_QC107_220504	Field_D	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.01
		0066_SW073_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.16
	16 Nov 2022	0066_SW073_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.21
	25 May 2023	0066_SW073_230525	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11
	04 Dec 2023	0066_SW073_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07

Table B2 - Surface Water Analytical Results

					Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOCAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOCAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	
					µg/L	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.001	0.005
PFAS NHMRC 2019 Health Recreational Water																				
PFAS NEMP 2.0 Table 1 Health Drinking Water																				
PFAS NEMP 2.0 Table 5 Freshwater 99%																				

Location Code	Date	Field ID	Sample Type	Lab Report Number	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29
SW074	26 Nov 2020	0066_SW074_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.33
	02 Jul 2021	0066_SW074_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.88
	01 Dec 2021	0066_SW074_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23
	04 May 2022	0066_SW074_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14
	16 Nov 2022	0066_SW074_221117	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.38
	25 May 2023	0066_SW074_230525	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	04 Dec 2023	0066_SW074_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08
SW075	27 Nov 2020	0066_SW075_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05
	02 Jul 2021	0066_SW075_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	01 Dec 2021	0066_SW075_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05
	04 May 2022	0066_SW075_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07
	16 Nov 2022	0066_SW075_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	26 May 2023	0066_SW075_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10
	05 Dec 2023	0066_QC107_231205	Field_D	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.1
	066_QC207_231205	Interlab_D	1051767	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.09	
	0066_SW075_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16	
SW076	27 Nov 2020	0066_SW076_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02
	01 Jul 2021	0066_SW076_210701	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.17
	01 Dec 2021	0066_SW076_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	04 May 2022	0066_SW076_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11
	16 Nov 2022	0066_SW076_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	26 May 2023	0066_SW076_230526	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01
	05 Dec 2023	0066_SW076_231205	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.29
SW077	27 Nov 2020	0066_SW077_201127	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.86
	02 Jul 2021	0066_SW077_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.12
	01 Dec 2021	0066_SW077_211201	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01
	04 May 2022	0066_SW077_220504	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.24
	16 Nov 2022	0066_SW077_221116	Normal	EM2223006	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.32
	25 May 2023	0066_SW077_230525	Normal	EM2309600	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14
	04 Dec 2023	0066_SW077_231204	Normal	EM2321752	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.19
SW078	26 Nov 2020	0066_SW078_201126	Normal	EM2021043	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23
	02 Jul 2021	0066_QC106_210702	Field_D	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29
		0066_QC206_210702	Interlab_D	807703	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.26
		0066_SW078_210702	Normal	EM2112638	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62
	02 Dec 2021	0066_SW078_211202	Normal	EM2124215	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03
	05 May 2022	0066_SW078_220505	Normal	EM2208151	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13
	15 Nov 2022	0066_QC204_221115	Interlab_D	943130	<0.01.															

Table B3 - RPDs

Lab Report Number	Unit	LOR	Date	04 Dec 2023			RPD	04 Dec 2023			RPD	04 Dec 2023			RPD
			Field ID	0066_MW064_231204		0066_QC100_231204		0066_MW064_231204		0066_QC200_231204		0066_MW062_231204		0066_QC102_231204	
			Matrix Type	Water		Water		Water		Water		Water		Water	
				EM2321752		EM2321752		EM2321752		1051767		EM2321752		EM2321752	
Perfluorocarbons															
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01		0.52	0.51	2		0.52	0.52	0		0.05	0.07	33	
Perfluorooctanoate (PFOA)	µg/L	0.01		0.01	0.01	0		0.01	0.01	0		0.03	0.03	0	
Sum of PFHxS and PFOS	µg/L	0.01		0.67	0.67	0		0.67	0.64	5		0.31	0.36	15	
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01		0.02	0.02	0		0.02	0.02	0		0.02	0.03	40	
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.03	0.03	0		0.03	0.02	40		0.02	0.03	40	
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		0.15	0.16	6		0.15	0.12	22		0.26	0.29	11	
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		<0.02	<0.02	0		<0.02	<0.01	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	
Perfluorobutanoic acid (PFBA)	µg/L	0.05		<0.1	<0.1	0		<0.1	<0.05	0		<0.1	<0.1	0	
Perfluoropentanoic acid (PFPeA)	µg/L	0.01		<0.02	<0.02	0		<0.02	<0.01	0		0.02	<0.02	0	
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		0.03	0.02	40		0.03	0.03	0		0.07	0.06	15	
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.01						<0.01							
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01		<0.02	<0.02	0		<0.02	<0.01	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	
Perfluorodecanoic acid (PFDA)	µg/L	0.01		<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	<0.02	0	
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01		<0.02	<0.02	0		<0.02	<0.01	0		<0.02	<0.02	0	
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01		<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	<0.05	0	
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	0		<0.02	<0.05	0		<0.02	<0.02	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	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	0.05		<0.05	<0.05	0		<0.05	<0.05	0		<0.05	<0.05	0	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	0		<0.05	<0.05	0		<0.05	<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	
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	
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	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	0		<0.05		0		<0.05	<0.05	0	
6:2 Fluorotelomer Sulfonate (6:2 FTS)	µg/L	0.05		<0.05	<0.05	0		<0.05	0.23	129		<0.05	<0.05	0	
8:2 Fluorotelomer sulfonate (8:2 FTS)	µg/L	0.01		<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	<0.05	0	
Sum of PFAS	µg/L	0.01		0.76	0.75	1		0.76	0.95	22		0.47	0.53	12	
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.01							0.53						
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	0.01						0.65							

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 81 (1 - 10 x LOR); 50 (10 - 30 x LOR); 30 (> 30 x LOR))
***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

Table B3 - RPDs

	Unit	04 Dec 2023			04 Dec 2023			04 Dec 2023			04 Dec 2023		
		0066_MW028_231204	0066_QC104_231204	RPD	0066_MW028_231204	0066_QC204_231204	RPD	0066_SW029_231204	0066_QC105_231204	RPD	0066_SW029_231204	0066_QC205_231204	RPD
		Water	Water		Water	Water		Water	Water		Water	Water	
		EM2321752	EM2321752		EM2321752	1051767		EM2321752	EM2321752		EM2321752	1051767	
Perfluorocarbons													
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.49	0.66	30	0.49	0.64	27	0.32	0.28	13	0.32	0.36	12
Perfluorooctanoate (PFOA)	µg/L	0.06	0.07	15	0.06	0.07	15	0.06	0.05	18	0.06	0.05	18
Sum of PFHxS and PFOS	µg/L	1.65	2.00	19	1.65	1.74	5	0.44	0.42	5	0.44	0.46	4
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.06	0.07	15	0.06	0.07	15	0.03	<0.02	40	0.03	0.01	100
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.10	0.11	10	0.10	0.14	33	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	1.16	1.34	14	1.16	1.1	5	0.12	0.14	15	0.12	0.10	18
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.06	0.07	15	0.06	0.07	15	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorobutanoic acid (PFBA)	µg/L	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.04	0.04	0	0.04	0.04	0	0.13	0.12	8	0.13	0.13	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.10	0.08	22	0.10	0.08	22	0.10	0.09	11	0.10	0.08	22
Perfluoropropanesulfonic acid (PFPrS)	mg/kg					0.02						<0.01	
Perfluoroheptanoic acid (PFHpA)	µg/L	<0.02	<0.02	0	<0.02	0.02	0	0.05	0.05	0	0.05	0.04	22
Perfluorononanoic acid (PFNA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorooctane sulfonamide (FOSA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	<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	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	<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	<0.05	<0.05	0	0.24	0.23	4	0.24	0.21	13
8:2 Fluorotelomer sulfonate (8:2 FTS)	µg/L	<0.05	<0.05	0	<0.05	<0.01	0	0.06	0.08	29	0.06	0.05	18
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Sum of PFAS	µg/L	2.07	2.44	16	2.07	2.25	8	1.11	1.04	7	1.11	1.03	7
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg					0.71						0.41	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L					1.81						0.51	

*RPDs have only been considered where a concentration is great
**Elevated RPDs are highlighted as per QAQC Profile settings (At
***Interlab Duplicates are matched on a per compound basis as r

Table B3 - RPDs

	Unit	04 Dec 2023			04 Dec 2023			04 Dec 2023			04 Dec 2023		
		0066_SW078_231204	0066_QC101_231204	RPD	0066_SW078_231204	0066_QC201_231204	RPD	0066_MW041_231204	0066_QC103_231204	RPD	0066_MW041_231204	0066_QC203_231204	RPD
		Water	Water		Water	Water		Water	Water		Water	Water	
		EM2321752	EM2321752		EM2321752	1051767		EM2321752	EM2321752		EM2321752	1051767	
Perfluorocarbons													
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.03	0.03	0	0.03	0.03	0	0.02	0.02	0	0.02	0.03	40
Perfluorooctanoate (PFOA)	µg/L	<0.01	<0.01	0	<0.01	<0.01	0	0.01	0.01	0	0.01	0.01	0
Sum of PFHxS and PFOS	µg/L	0.05	0.05	0	0.05	0.05	0	0.32	0.38	17	0.32	0.29	10
Perfluorobutane sulfonic acid (PFBS)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	0.03	0.04	29	0.03	0.03	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.02	0.02	0	0.02	0.02	0	0.30	0.36	18	0.30	0.26	14
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorobutanoic acid (PFBA)	µg/L	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	0.02	0
Perfluorohexanoic acid (PFHxA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.03	0.03	0	0.03	0.03	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg					<0.01						<0.01	
Perfluoroheptanoic acid (PFHpA)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorooctane sulfonamide (FOSA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	<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	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonate (8:2 FTS)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Sum of PFAS	µg/L	0.05	0.05	0	0.05	<0.1	0	0.39	0.46	16	0.39	0.39	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg					0.03						0.04	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L					0.05						0.3	

*RPDs have only been considered where a concentration is great
**Elevated RPDs are highlighted as per QAQC Profile settings (A/
***Interlab Duplicates are matched on a per compound basis as r

Table B3 - RPDs

		05 Dec 2023		RPD	05 Dec 2023		RPD	05 Dec 2023		RPD	05 Dec 2023		RPD
		0066_MW204_231205	0066_QC106_231205		0066_MW204_231205	0066_QC206_231205		0066_MW208_231205	0066_QC108_231205		0066_MW208_231205	0066_QC208_231205	
		Water	Water		Water	Water		Water	Water		Water	Water	
		EM2321752	EM2321752		EM2321752	1051767		EM2321752	EM2321752		EM2321752	1051767	
	Unit												
Perfluorocarbons													
Perfluorooctane sulfonic acid (PFOS)	µg/L	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluorooctanoate (PFOA)	µg/L	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Sum of PFHxS and PFOS	µg/L	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluorobutane sulfonic acid (PFBS)	µg/L	<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	<0.02	<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	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorobutanoic acid (PFBA)	µg/L	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg					<0.01						<0.01	
Perfluoroheptanoic acid (PFHpA)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorooctane sulfonamide (FOSA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	<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	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonate (8:2 FTS)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Sum of PFAS	µg/L	<0.01	<0.01	0	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg					<0.01						<0.01	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L					<0.01						<0.01	

*RPDs have only been considered where a concentration is greater than the RPD

**Elevated RPDs are highlighted as per QAQC Profile settings (A4)

***Interlab Duplicates are matched on a per compound basis as per QAQC Profile settings (A4)

Table B3 - RPDs

		05 Dec 2023		RPD	05 Dec 2023		RPD	06 Dec 2023		RPD	06 Dec 2023	05 Dec 2023	RPD
		0066_SW075_231205	0066_QC107_231205		0066_SW075_231205	0066_QC207_231205		0066_SW057_231206	0066_QC109_231206		0066_SW057_231206	0066_QC209_231205	
		Water	Water		Water	Water		Water	Water		Water	Water	
		EM2321752	EM2321752		EM2321752	1051767		EM2321752	EM2321752		EM2321752	1051767	
	Unit												
Perfluorocarbons													
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.06	0.07	15	0.06	0.06	0	2.90	2.82	3	2.90	3.9	29
Perfluorooctanoate (PFOA)	µg/L	<0.01	<0.01	0	<0.01	<0.01	0	0.79	0.76	4	0.79	0.87	10
Sum of PFHxS and PFOS	µg/L	0.09	0.10	11	0.09	0.08	12	5.23	5.18	1	5.23	6.9	28
Perfluorobutane sulfonic acid (PFBS)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.39	0.33	17	0.39	0.32	20
Perfluoropentane sulfonic acid (PFPeS)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.39	0.43	10	0.39	0.52	29
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.03	0.03	0	0.03	0.02	40	2.33	2.36	1	2.33	3.0	25
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.14	0.14	0	0.14	0.19	30
Perfluorodecanesulfonic acid (PFDS)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorobutanoic acid (PFBA)	µg/L	<0.1	<0.1	0	<0.1	<0.05	0	0.2	0.2	0	0.2	0.29	37
Perfluoropentanoic acid (PFPeA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.42	0.43	2	0.42	0.47	11
Perfluorohexanoic acid (PFHxA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	2.32	1.88	21	2.32	3.5	41
Perfluoropropanesulfonic acid (PFPrS)	mg/kg					<0.01						0.09	
Perfluoroheptanoic acid (PFHpA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.55	0.47	16	0.55	0.39	34
Perfluorononanoic acid (PFNA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	0.04	0.02	67	0.04	0.02	67
Perfluorodecanoic acid (PFDA)	µg/L	<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	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Perfluorooctane sulfonamide (FOSA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	<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	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	0	<0.02	<0.05	0
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonate (8:2 FTS)	µg/L	<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	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.05	0	<0.05	<0.01	0
Sum of PFAS	µg/L	0.09	0.10	11	0.09	<0.1	0	10.5	9.84	6	10.5	13.56	25
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg					0.06						4.77	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L					0.08						7.77	

*RPDs have only been considered where a concentration is greater than the detection limit
**Elevated RPDs are highlighted as per QA/QC Profile settings (Appendix 1)
***Interlab Duplicates are matched on a per compound basis as per the QA/QC Profile settings (Appendix 1)

Table B4: Blank Results

Lab Report Number			EM2321752						
Field ID			0066_QC301_231204	0066_QC302_231205	0066_QC304_231206	0066_QC500_231206	0066_QC501_231206	0066_QC502_231206	0066_QC503_231206
Date			04 Dec 2023	05 Dec 2023	06 Dec 2023	06 Dec 2023	06 Dec 2023	06 Dec 2023	06 Dec 2023
Sample Type			Rinsate	Rinsate	Rinsate	Trip_B	Trip_B	Trip_B	Trip_B
	Unit	EQL							
Perfluorocarbons									
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoate (PFOA)	µg/L	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
Perfluorobutane sulfonic acid (PFBS)	µg/L	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
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	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
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	µg/L	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
Perfluoroheptanoic acid (PFHpA)	µg/L	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
Perfluorodecanoic acid (PFDA)	µg/L	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
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTriDA)	µg/L	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
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
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 sulfonamidoethanol (EtFOSE)	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-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
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
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 sulfonate (8:2 FTS)	µg/L	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
Sum of PFAS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NA									
Sum of WA DWER PFAS (n=10)*	UG/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

APPENDIX

C

LABORATORY CERTIFICATES



Custody Document for Submissions via ALS Compass App

Project: VIC_0066_PFA501P23 Client: Starttec

Project Manager:

Phone:

ALS Compass COC Reference: 60825 # Samples: 99

Sampler:

Phone:

Turnaround Requirements: Standard 5 Urgent

Special Instructions:

ALS Use Only

Custody seal intact? YES NO N/A

Free ice / frozen ice bricks upon receipt? YES NO N/A

Random sample temperature on receipt? °C

Custody:

Relinquished by:



Date / Time:

7/12 9am

Received by:



Date / Time:

7/12/23, 1310.

Relinquished by:



Date / Time:

Received by:



Date / Time:



ALS Laboratory: EM Melbourne
Environmental

7/12/23. 1310

DATE TIME:

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	ANALYSIS NOT REQUIRED	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0066_MW003_231206		06/12/2023 10:57 AM	WATER	ALS: 2 Non ALS: 0	No		X		
002	0066_MW017_231208		06/12/2023 02:53 PM	WATER	ALS: 2 Non ALS: 0	No		X		
003	0066_MW018_231206		06/12/2023 02:52 PM	WATER	ALS: 2 Non ALS: 0	No		X		
004	0066_MW019_231204		04/12/2023 01:32 PM	WATER	ALS: 2 Non ALS: 0	No		X		
005	0066_MW025_231206		06/12/2023 09:39 AM	WATER	ALS: 2 Non ALS: 0	No		X		
006	0066_MW028_231204		04/12/2023 03:01 PM	WATER	ALS: 2 Non ALS: 0	No		X		
007	0066_MW029_231205		05/12/2023 03:08 PM	WATER	ALS: 2 Non ALS: 0	No		X		

CHAIN OF CUSTODY COC#: 60825 ALS Laboratory: EM Melbourne Environmental				RELINQUISHED BY: DATE TIME:		RECEIVED BY: DATE TIME: 7/12/23, 1310		RELINQUISHED BY: DATE TIME:		RECEIVED BY: DATE TIME:	
				CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD PROJECT: VIC_0066_PFASOMP_23 SITE: HMAS Cerberus ORDER NO: 304300114 PROJECT MANAGER: PRIMARY SAMPLER: EMAIL REPORTS TO: EMAIL INVOICES TO:				CONTACT PH: QUOTE NO: SY/139/19_Cerberus		SAMPLER MOBILE:	
TURNAROUND REQUIREMENTS: 5 Days						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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0066_MW030_231205		05/12/2023 03:26 PM	WATER	ALS: 2 Non ALS: 0	No		X		
009	0066_MW033_231204		04/12/2023 07:58 PM	WATER	ALS: 2 Non ALS: 0	No		X		
010	0066_MW034_231204		04/12/2023 08:02 PM	WATER	ALS: 2 Non ALS: 0	No		X		
011	0066_MW036_231204		04/12/2023 08:53 PM	WATER	ALS: 6 Non ALS: 0	No		X		Internal lab QC
012	0066_MW041_231204		04/12/2023 08:01 PM	WATER	ALS: 2 Non ALS: 0	No		X		
013	0066_MW043_231204		04/12/2023 12:06 PM	WATER	ALS: 2 Non ALS: 0	No		X		
014	0066_MW046_231204		04/12/2023 08:05 PM	WATER	ALS: 2 Non ALS: 0	No		X		



CHAIN OF CUSTODY

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 13:10

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLE NO:

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:

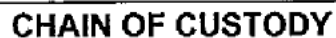
°C

Other comments:

SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0066_MW047_231204		04/12/2023 08:50 PM	WATER	ALS: 6 Non ALS: 0	No		X		Internal lab QC
016	0066_MW051_231204		04/12/2023 08:52 PM	WATER	ALS: 6 Non ALS: 0	No		X		Internal lab QC
017	0066_MW054_231204		04/12/2023 08:55 PM	WATER	ALS: 6 Non ALS: 0	No		X		Internal QC
018	0066_MW061_231204		04/12/2023 11:28 AM	WATER	ALS: 2 Non ALS: 0	No		X		
019	0066_MW062_231204		04/12/2023 11:52 AM	WATER	ALS: 2 Non ALS: 0	No		X		
020	0066_MW063_231206		06/12/2023 11:41 AM	WATER	ALS: 2 Non ALS: 0	No		X		
021	0066_MW064_231204		04/12/2023 10:51 AM	WATER	ALS: 2 Non ALS: 0	No		X		



ALS Laboratory: EM Melbourne
Environmental

DATE TIME:

Other comments:

·C

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	ANALYSIS NOT REQUIRED	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
022	0066_MW067_231206		06/12/2023 01:49 PM	WATER	ALS: 2 Non ALS: 0	No		X		
023	0066_MW068_231204		04/12/2023 07:58 PM	WATER	ALS: 2 Non ALS: 0	No		X		
024	0066_MW069_231204		04/12/2023 01:11 PM	WATER	ALS: 2 Non ALS: 0	No		X		
025	0066_MW070_231204		04/12/2023 02:10 PM	WATER	ALS: 2 Non ALS: 0	No		X		
026	0066_MW071_231206		06/12/2023 01:51 PM	WATER	ALS: 2 Non ALS: 0	No		X		
027	0066_MW074_231206		06/12/2023 12:40 PM	WATER	ALS: 2 Non ALS: 0	No		X		
028	0066_MW075_231206		06/12/2023 12:41 PM	WATER	ALS: 2 Non ALS: 0	No		X		



ALS COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 1310

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC 0066 PFASOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: SY/139/19 Cerberus

~~SAMPLER MOBILE.~~

EMAIL REPORTS TO:

EMAIL INVOICES TO:

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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
029	0066_MW102_231204		04/12/2023 08:55 PM	WATER	ALS: 6 Non ALS: 0	No		X		
030	0066_MW109_231204		04/12/2023 01:49 PM	WATER	ALS: 2 Non ALS: 0	No		X		
031	0066_MW110_231204		04/12/2023 07:53 PM	WATER	ALS: 2 Non ALS: 0	No		X		
032	0066_MW112_231204		04/12/2023 02:30 PM	WATER	ALS: 2 Non ALS: 0	No		X		
033	0066_MW117_231206		06/12/2023 02:50 PM	WATER	ALS: 2 Non ALS: 0	No		X		
034	0066_MW121_231204		04/12/2023 07:54 PM	WATER	ALS: 2 Non ALS: 0	No		X		
035	0066_MW122D_231204		04/12/2023 07:53 PM	WATER	ALS: 2 Non ALS: 0	No		X		



(ALS) COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY.

DATE TIME:

7/12/23, 1310

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC 0066 PFASOMP 23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: SY/139/19 Cerberus

~~SAMPLER MOBILE.~~

EMAIL REPORTS TO:

EMAIL INVOICES TO:

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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	0066_MW122S_231205		05/12/2023 11:17 AM	WATER	ALS: 2 Non ALS: 0	No		X		
037	0066_MW202_231205		05/12/2023 02:36 PM	WATER	ALS: 2 Non ALS: 0	No		X		
038	0066_MW204_231205		05/12/2023 02:19 PM	WATER	ALS: 2 Non ALS: 0	No		X		
039	0066_MW206_231204		05/12/2023 03:22 PM	WATER	ALS: 2 Non ALS: 0	No		X		
040	0066_MW207_231205		05/12/2023 03:22 PM	WATER	ALS: 2 Non ALS: 0	No		X		
041	0066_MW208_231205		05/12/2023 03:20 PM	WATER	ALS: 2 Non ALS: 0	No		X		
042	0066_MW209_231205		05/12/2023 03:26 PM	WATER	ALS: 2 Non ALS: 0	No		X		



ALS Laboratory: EM Melbourne
Environmental

DATE TIME:

EMAIL INVOICES TO

Biohazard info:

Other comments:

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0066_MW210_231206		06/12/2023 10:37 AM	WATER	ALS: 2 Non ALS: 0	No		X		
044	0066_MW212_231204		04/12/2023 08:03 PM	WATER	ALS: 2 Non ALS: 0	No		X		
045	0066_MW213_231204		04/12/2023 08:03 PM	WATER	ALS: 2 Non ALS: 0	No		X		
046	0066_MW214D_231206		06/12/2023 01:51 PM	WATER	ALS: 2 Non ALS: 0	No		X		
047	0066_MW215D_231206		06/12/2023 01:50 PM	WATER	ALS: 2 Non ALS: 0	No		X		
048	0066_MW215S_231206		06/12/2023 01:49 PM	WATER	ALS: 2 Non ALS: 0	No		X		
049	0066_MW217D_231205		05/12/2023 04:06 PM	WATER	ALS: 2 Non ALS: 0	No		X		



CHAIN OF CUSTODY

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 1310

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0066_MW218_231206		06/12/2023 01:52 PM	WATER	ALS: 6 Non ALS: 0	No		X		Extra bottles for lab internal QC
051	0066_SW001_231206		06/12/2023 01:52 PM	WATER	ALS: 2 Non ALS: 0	No		X		
052	0066_SW003_231204		04/12/2023 08:01 PM	WATER	ALS: 2 Non ALS: 0	No		X		
053	0066_SW004_231205		05/12/2023 03:23 PM	WATER	ALS: 2 Non ALS: 0	No		X		
054	0066_SW005_231206		06/12/2023 01:48 PM	WATER	ALS: 2 Non ALS: 0	No		X		
055	0066_SW007_231204		04/12/2023 07:57 PM	WATER	ALS: 2 Non ALS: 0	No		X		
056	0066_SW009_231205		05/12/2023 03:24 PM	WATER	ALS: 6 Non ALS: 0	No		X		Extra bottles for lab QC



CHAIN OF CUSTODY

ALS COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 13:10

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	Analysis NOT REQUIRED	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
057	0066_SW010_231205		05/12/2023 03:24 PM	WATER	ALS: 2 Non ALS: 0	No		X		
058	0066_SW014_231205		05/12/2023 03:53 PM	WATER	ALS: 2 Non ALS: 0	No		X		
059	0066_SW015_231205		05/12/2023 10:33 AM	WATER	ALS: 2 Non ALS: 0	No		X		
060	0066_SW016_231205		05/12/2023 11:08 AM	WATER	ALS: 6 Non ALS: 0	No		X		Extra bottles for internal lab QC
061	0066_SW017_231206		06/12/2023 01:50 PM	WATER	ALS: 2 Non ALS: 0	No		X		
062	0066_SW018_231204		04/12/2023 07:55 PM	WATER	ALS: 2 Non ALS: 0	No		X		
063	0066_SW019_231204		04/12/2023 07:57 PM	WATER	ALS: 2 Non ALS: 0	No		X		

**CHAIN OF CUSTODY**

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 1310

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0066_SW020_231205		05/12/2023 03:23 PM	WATER	ALS: 2 Non ALS: 0	No		X		
065	0066_SW021_231205		05/12/2023 03:21 PM	WATER	ALS: 2 Non ALS: 0	No		X		
066	0066_SW022_231206		06/12/2023 03:50 PM	WATER	ALS: 2 Non ALS: 0	No		X		
067	0066_SW023_231205		05/12/2023 11:07 AM	WATER	ALS: 2 Non ALS: 0	No		X		
068	0066_SW024_231206		06/12/2023 01:48 PM	WATER	ALS: 2 Non ALS: 0	No		X		
069	0066_SW027_231205		05/12/2023 11:07 AM	WATER	ALS: 2 Non ALS: 0	No		X		
070	0066_SW028_231205		05/12/2023 03:24 PM	WATER	ALS: 2 Non ALS: 0	No		X		

**CHAIN OF CUSTODY**

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

RECEIVED BY:

DATE TIME:

DATE TIME:

RELINQUISHED BY:

RECEIVED BY:

DATE TIME:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
071	0066_SW029_231204		04/12/2023 03:17 PM	WATER	ALS: 2 Non ALS: 0	No		X		
072	0066_SW057_231206		06/12/2023 01:47 PM	WATER	ALS: 2 Non ALS: 0	No		X		
073	0066_SW071_231204		04/12/2023 08:00 PM	WATER	ALS: 2 Non ALS: 0	No		X		
074	0066_SW073_231204		04/12/2023 11:17 AM	WATER	ALS: 2 Non ALS: 0	No		X		
075	0066_SW074_231204		04/12/2023 11:01 AM	WATER	ALS: 2 Non ALS: 0	No		X		
076	0066_SW075_231205		05/12/2023 03:21 PM	WATER	ALS: 2 Non ALS: 0	No		X		
077	0066_SW076_231205		05/12/2023 03:25 PM	WATER	ALS: 6 Non ALS: 0	No		X		Extra bottles for lab QC

**CHAIN OF CUSTODY**

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PASOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
078	0066_SW077_231204		04/12/2023 08:58 PM	WATER	ALS: 5 Non ALS: 0	No		X		Internal QC
079	0066_SW078_231204		04/12/2023 07:55 PM	WATER	ALS: 2 Non ALS: 0	No		X		
080	0066_QC100_231204		04/12/2023 10:52 AM	WATER	ALS: 2 Non ALS: 0	No		X		
081	0066_QC102_231204		04/12/2023 11:53 AM	WATER	ALS: 2 Non ALS: 0	No		X		
082	0066_QC104_231204		04/12/2023 03:01 PM	WATER	ALS: 2 Non ALS: 0	No		X		
083	0066_QC105_231204		04/12/2023 03:18 PM	WATER	ALS: 2 Non ALS: 0	No		X		
084	0066_QC300_231204		04/12/2023 08:07 PM	WATER	ALS: 2 Non ALS: 0	Yes				

**CHAIN OF CUSTODY**

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 18:00

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
085	0066_QC301_231204		04/12/2023 08:07 PM	WATER	ALS: 2 Non ALS: 0	No		X		
086	0066_QC101_231204		04/12/2023 08:08 PM	WATER	ALS: 2 Non ALS: 0	No		X		
087	0066_QC103_231204		04/12/2023 08:09 PM	WATER	ALS: 2 Non ALS: 0	No		X		
088	0066_QC302_231205		05/12/2023 11:18 AM	WATER	ALS: 2 Non ALS: 0	No		X		
089	0066_QC303_231205		05/12/2023 11:19 AM	WATER	ALS: 2 Non ALS: 0	Yes	-			
090	0066_QC106_231205		05/12/2023 02:20 PM	WATER	ALS: 2 Non ALS: 0	No		X		
091	0066_QC107_231205		05/12/2023 03:27 PM	WATER	ALS: 2 Non ALS: 0	No		X		

**CHAIN OF CUSTODY**

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

DATE TIME:

DATE TIME:

DATE TIME:

DATE TIME:

CLIENT: MWH AUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
092	0066_QC108_231205		05/12/2023 03:28 PM	WATER	ALS: 2 Non ALS: 0	No		X		
093	0066_QC109_231206		06/12/2023 01:53 PM	WATER	ALS: 2 Non ALS: 0	No		X		
094	0066_QC304_231206		06/12/2023 01:54 PM	WATER	ALS: 2 Non ALS: 0	No		X		
095	0066_QC305_231206		06/12/2023 01:55 PM	WATER	ALS: 2 Non ALS: 0	Yes				
096	0066_QC500_231206		06/12/2023 02:36 PM	WATER	ALS: 2 Non ALS: 0	No		X		
097	0066_QC501_231206		06/12/2023 02:37 PM	WATER	ALS: 2 Non ALS: 0	No		X		
098	0066_QC502_231206		06/12/2023 02:38 PM	WATER	ALS: 2 Non ALS: 0	No		X		



CHAIN OF CUSTODY

COC#: 60825

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

7/12/23, 1310

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_23

SITE: HMAS Cerberus

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH:

QUOTE NO: SY/139/19_Cerberus

SAMPLER MOBILE:

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	PFAS ONLY WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
069	0066_QC503_231206		06/12/2023 02:38 PM	WATER	ALS: 2 Non ALS: 0	No		X		

From:

Sent:

To:

Cc:

Subject:

Thursday, 7 December 2023 11:24 AM

COC Melbourne

FW: [EXTERNAL] - DEF19008: Cerberus sample pick up

Follow Up Flag:

Flag Status:

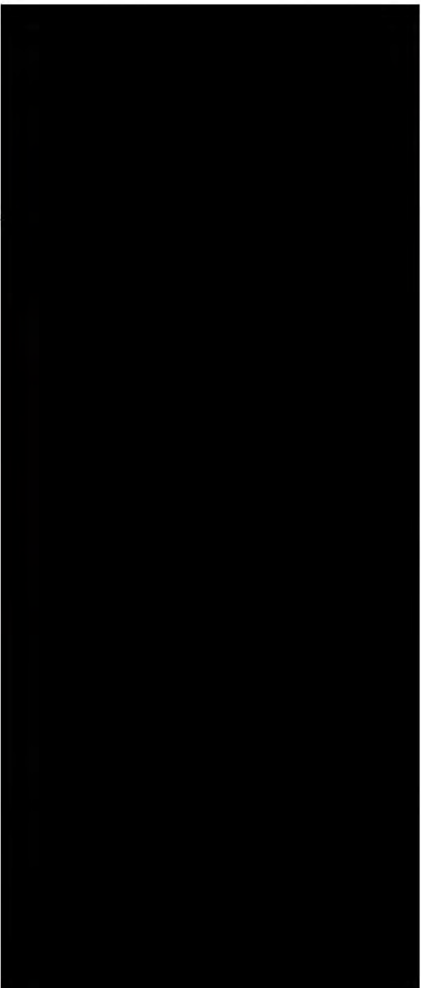
Follow up
Flagged

Receipt

Courier booked 11:20

Note instructions below

Kind Regards



Subscribe   



CLICK HERE TO SEE OUR FESTIVE OPENING TIMES

From: [REDACTED]
Sent: Thursday, 7 December 2023 10:27 AM
To: [REDACTED]
Subject: [EXTERNAL] - DEF19008: Cerberus sample pick up

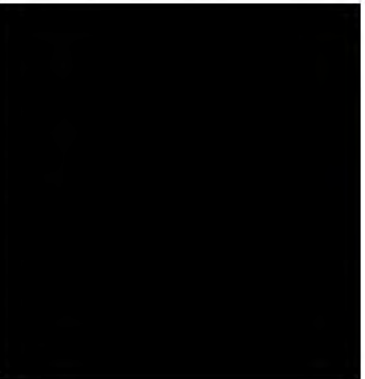
CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hey [REDACTED]

Can you please organize for 6 eskies (4 of samples, 2 empty) to be picked up from our Melbourne office?
Compass COC no. is 60825 (I have included this number in each esky).

I have already submitted the COC so couldn't make any changes but could you please place sample 0066_SW003_231204 on hold?

Cheers,



The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : EM2321752

Client : STANTEC AUSTRALIA PTY LTD

Contact : [REDACTED]

Address : [REDACTED]

E-mail : [REDACTED]

Telephone : ----

Facsimile : ----

Project : VIC_0066_PFASOMP_23

Order number : 304300114

C-O-C number : 60825

Site : HMAS Cerberus

Sampler : [REDACTED]

Laboratory : [REDACTED]

Contact : [REDACTED]

Address : [REDACTED]

E-mail : [REDACTED]

Telephone : [REDACTED]

Facsimile : [REDACTED]

Page : 1 of 5

Quote number : EM2022MWWHAUS0002

(SY/139/19_Cerberus)

QC Level : NEPM 2013 B3 & ALS QC Standard

Dates

Date Samples Received : 07-Dec-2023 13:10

Client Requested Due : 14-Dec-2023

Date

Issue Date : 11-Dec-2023

Scheduled Reporting Date : **14-Dec-2023**

Delivery Details

Mode of Delivery : Carrier

No. of coolers/boxes : 4

Receipt Detail :

Security Seal : Intact.

Temperature : 7.0 - Ice present

No. of samples received / analysed : 99 / 95

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 direct any queries related to sample condition / numbering / breakages to Client Services.**
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- **Analytical work for this work order will be conducted at ALS Springvale.**
- **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.

EM2321752-052 : 04-Dec-2023 20:01 : 0066_SW003_231204 - HOLD

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 PFAS - Full Suite (28 analytes)
EM2321752-001	06-Dec-2023 10:57	0066_MW003_231206		✓
EM2321752-002	06-Dec-2023 14:53	0066_MW017_231206		✓
EM2321752-003	06-Dec-2023 14:52	0066_MW018_231206		✓
EM2321752-004	04-Dec-2023 13:32	0066_MW019_231204		✓
EM2321752-005	06-Dec-2023 09:39	0066_MW025_231206		✓
EM2321752-006	04-Dec-2023 15:01	0066_MW028_231204		✓
EM2321752-007	05-Dec-2023 15:08	0066_MW029_231205		✓
EM2321752-008	05-Dec-2023 15:26	0066_MW030_231205		✓
EM2321752-009	04-Dec-2023 19:58	0066_MW033_231204		✓
EM2321752-010	04-Dec-2023 20:02	0066_MW034_231204		✓
EM2321752-011	04-Dec-2023 20:53	0066_MW036_231204		✓
EM2321752-012	04-Dec-2023 20:01	0066_MW041_231204		✓
EM2321752-013	04-Dec-2023 12:06	0066_MW043_231204		✓
EM2321752-014	04-Dec-2023 20:05	0066_MW046_231204		✓
EM2321752-015	04-Dec-2023 20:50	0066_MW047_231204		✓
EM2321752-016	04-Dec-2023 20:52	0066_MW051_231204		✓
EM2321752-017	04-Dec-2023 20:56	0066_MW054_231204		✓
EM2321752-018	04-Dec-2023 11:28	0066_MW061_231204		✓
EM2321752-019	04-Dec-2023 11:52	0066_MW062_231204		✓
EM2321752-020	06-Dec-2023 11:41	0066_MW063_231206		✓
EM2321752-021	04-Dec-2023 10:51	0066_MW064_231204		✓
EM2321752-022	06-Dec-2023 13:49	0066_MW067_231206		✓
EM2321752-023	04-Dec-2023 19:58	0066_MW068_231204		✓
EM2321752-024	04-Dec-2023 13:11	0066_MW069_231204		✓
EM2321752-025	04-Dec-2023 14:10	0066_MW070_231204		✓
EM2321752-026	06-Dec-2023 13:51	0066_MW071_231206		✓
EM2321752-027	06-Dec-2023 12:40	0066_MW074_231206		✓
EM2321752-028	06-Dec-2023 12:41	0066_MW075_231206		✓
EM2321752-029	04-Dec-2023 20:55	0066_MW102_231204		✓
EM2321752-030	04-Dec-2023 13:49	0066_MW109_231204		✓
EM2321752-031	04-Dec-2023 19:53	0066_MW110_231204		✓
EM2321752-032	04-Dec-2023 14:30	0066_MW112_231204		✓
EM2321752-033	06-Dec-2023 14:50	0066_MW117_231206		✓



			(On Hold) WATER No analysis requested	WATER - EP231X PFAS - Full Suite (28 analytes)
EM2321752-034	04-Dec-2023 19:54	0066_MW121_231204		✓
EM2321752-035	04-Dec-2023 19:53	0066_MW122D_231204		✓
EM2321752-036	05-Dec-2023 11:17	0066_MW122S_231205		✓
EM2321752-037	05-Dec-2023 14:38	0066_MW202_231205		✓
EM2321752-038	05-Dec-2023 14:19	0066_MW204_231205		✓
EM2321752-039	05-Dec-2023 15:22	0066_MW206_231205		✓
EM2321752-040	05-Dec-2023 15:22	0066_MW207_231205		✓
EM2321752-041	05-Dec-2023 15:20	0066_MW208_231205		✓
EM2321752-042	05-Dec-2023 15:26	0066_MW209_231205		✓
EM2321752-043	06-Dec-2023 10:37	0066_MW210_231206		✓
EM2321752-044	04-Dec-2023 20:03	0066_MW212_231204		✓
EM2321752-045	04-Dec-2023 20:03	0066_MW213_231204		✓
EM2321752-046	06-Dec-2023 13:51	0066_MW214D_231206		✓
EM2321752-047	06-Dec-2023 13:50	0066_MW215D_231206		✓
EM2321752-048	06-Dec-2023 13:49	0066_MW215S_231206		✓
EM2321752-049	05-Dec-2023 16:06	0066_MW217D_231205		✓
EM2321752-050	06-Dec-2023 13:52	0066_MW218_231206		✓
EM2321752-051	06-Dec-2023 13:52	0066_SW001_231206		✓
EM2321752-052	04-Dec-2023 20:01	0066_SW003_231204 H...	✓	
EM2321752-053	05-Dec-2023 15:23	0066_SW004_231205		✓
EM2321752-054	06-Dec-2023 13:48	0066_SW005_231206		✓
EM2321752-055	04-Dec-2023 19:57	0066_SW007_231204		✓
EM2321752-056	05-Dec-2023 15:24	0066_SW009_231205		✓
EM2321752-057	05-Dec-2023 15:24	0066_SW010_231205		✓
EM2321752-058	05-Dec-2023 15:53	0066_SW014_231205		✓
EM2321752-059	05-Dec-2023 10:33	0066_SW015_231205		✓
EM2321752-060	05-Dec-2023 11:08	0066_SW016_231205		✓
EM2321752-061	06-Dec-2023 13:50	0066_SW017_231206		✓
EM2321752-062	04-Dec-2023 19:55	0066_SW018_231204		✓
EM2321752-063	04-Dec-2023 19:57	0066_SW019_231204		✓
EM2321752-064	05-Dec-2023 15:23	0066_SW020_231205		✓
EM2321752-065	05-Dec-2023 15:21	0066_SW021_231205		✓
EM2321752-066	06-Dec-2023 15:50	0066_SW022_231206		✓
EM2321752-067	05-Dec-2023 11:07	0066_SW023_231205		✓
EM2321752-068	06-Dec-2023 13:48	0066_SW024_231206		✓
EM2321752-069	05-Dec-2023 11:07	0066_SW027_231205		✓
EM2321752-070	05-Dec-2023 15:24	0066_SW028_231205		✓
EM2321752-071	04-Dec-2023 15:17	0066_SW029_231204		✓
EM2321752-072	06-Dec-2023 13:47	0066_SW057_231206		✓
EM2321752-073	04-Dec-2023 20:00	0066_SW071_231204		✓
EM2321752-074	04-Dec-2023 11:17	0066_SW073_231204		✓



			(On Hold) WATER No analysis requested	WATER - EP231X PFAS - Full Suite (28 analytes)
EM2321752-075	04-Dec-2023 11:01	0066_SW074_231204		✓
EM2321752-076	05-Dec-2023 15:21	0066_SW075_231205		✓
EM2321752-077	05-Dec-2023 15:25	0066_SW076_231205		✓
EM2321752-078	04-Dec-2023 20:58	0066_SW077_231204		✓
EM2321752-079	04-Dec-2023 19:55	0066_SW078_231204		✓
EM2321752-080	04-Dec-2023 10:52	0066_QC100_231204		✓
EM2321752-081	04-Dec-2023 11:53	0066_QC102_231204		✓
EM2321752-082	04-Dec-2023 15:01	0066_QC104_231204		✓
EM2321752-083	04-Dec-2023 15:18	0066_QC105_231204		✓
EM2321752-084	04-Dec-2023 20:07	0066_QC300_231204	✓	
EM2321752-085	04-Dec-2023 20:07	0066_QC301_231204		✓
EM2321752-086	04-Dec-2023 20:08	0066_QC101_231204		✓
EM2321752-087	04-Dec-2023 20:09	0066_QC103_231204		✓
EM2321752-088	05-Dec-2023 11:18	0066_QC302_231205		✓
EM2321752-089	05-Dec-2023 11:19	0066_QC303_231205	✓	
EM2321752-090	05-Dec-2023 14:20	0066_QC106_231205		✓
EM2321752-091	05-Dec-2023 15:27	0066_QC107_231205		✓
EM2321752-092	05-Dec-2023 15:28	0066_QC108_231205		✓
EM2321752-093	06-Dec-2023 13:53	0066_QC109_231206		✓
EM2321752-094	06-Dec-2023 13:54	0066_QC304_231206		✓
EM2321752-095	06-Dec-2023 13:55	0066_QC305_231206	✓	
EM2321752-096	06-Dec-2023 14:36	0066_QC500_231206		✓
EM2321752-097	06-Dec-2023 14:37	0066_QC501_231206		✓
EM2321752-098	06-Dec-2023 14:38	0066_QC502_231206		✓
EM2321752-099	06-Dec-2023 14:38	0066_QC503_231206		✓

Proactive Holding Time Report

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



Requested Deliverables

ACCOUNTS ADDRESS

- A4 - AU Tax Invoice (INV) Email

ANKITA MAHANGADE

- *AU Certificate of Analysis - NATA (COA) Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- A4 - AU Tax Invoice (INV) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ESDAT (ESDAT) Email
- EDI Format - XTab (XTAB) Email

DERP LAB REPORTS

- *AU Certificate of Analysis - NATA (COA) Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ESDAT (ESDAT) Email
- EDI Format - XTab (XTAB) Email

Jeff Li

- *AU Certificate of Analysis - NATA (COA) Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ESDAT (ESDAT) Email
- EDI Format - XTab (XTAB) Email

Maya Brennan

- *AU Certificate of Analysis - NATA (COA) Email
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- A4 - AU Tax Invoice (INV) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ESDAT (ESDAT) Email
- EDI Format - XTab (XTAB) Email



QA/QC Compliance Assessment to assist with Quality Review

Work Order : EM2321752

Page : 1 of 14

Client : STANTEC AUSTRALIA PTY LTD
Contact :
Project : VIC_0066_PFASOMP_23
Site : HMAS Cerberus
Sampler :
Order number : 304300114

Laboratory :
Telephone :
Date Samples Received : 07-Dec-2023
Issue Date : 14-Dec-2023
No. of samples received : 99
No. of samples analysed : 95

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, **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
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	EM2321752--060	0066_SW016_231205	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	EM2321752--060	0066_SW016_231205	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	EM2321752--011	0066_MW036_231204	Perfluorobutanoic acid (PFBA)	375-22-4	44.6 %	73.0-129%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2321752--050	0066_MW218_231206	Perfluorobutanoic acid (PFBA)	375-22-4	48.0 %	73.0-129%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2321752--060	0066_SW016_231205	Perfluorobutanoic acid (PFBA)	375-22-4	66.0 %	73.0-129%	Recovery less than lower data quality objective
EP231B: Perfluoroalkyl Carboxylic Acids	EM2321752--060	0066_SW016_231205	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	EM2321752--060	0066_SW016_231205	Perfluorooctanoic acid (PFOA)	335-67-1	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.
EP231C: Perfluoroalkyl Sulfonamides	EM2321752--060	0066_SW016_231205	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	34.5 %	65.0-136%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2321752--060	0066_SW016_231205	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	61.0 %	67.0-138%	Recovery less than lower 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: **WATER**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

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



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X) 0066_MW019_231204, 0066_MW033_231204, 0066_MW036_231204, 0066_MW043_231204, 0066_MW047_231204, 0066_MW054_231204, 0066_MW062_231204, 0066_MW068_231204, 0066_MW070_231204, 0066_MW110_231204, 0066_MW121_231204,	0066_MW028_231204, 0066_MW034_231204, 0066_MW041_231204, 0066_MW046_231204, 0066_MW051_231204, 0066_MW061_231204, 0066_MW064_231204, 0066_MW069_231204, 0066_MW109_231204, 0066_MW112_231204, 0066_MW122D_231204	04-Dec-2023	09-Dec-2023	01-Jun-2024	✔	09-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW102_231204, 0066_MW213_231204,	0066_MW212_231204, 0066_SW007_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	11-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW018_231204, 0066_SW029_231204, 0066_SW073_231204, 0066_SW077_231204,	0066_SW019_231204, 0066_SW071_231204, 0066_SW074_231204, 0066_SW078_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	12-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_231204, 0066_QC104_231204, 0066_QC301_231204, 0066_QC103_231204	0066_QC102_231204, 0066_QC105_231204, 0066_QC101_231204,	04-Dec-2023	12-Dec-2023	01-Jun-2024	✔	13-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW029_231205, 0066_MW122S_231205, 0066_MW204_231205,	0066_MW030_231205, 0066_MW202_231205, 0066_MW206_231205	05-Dec-2023	09-Dec-2023	02-Jun-2024	✔	09-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW207_231205, 0066_MW209_231205, 0066_SW004_231205, 0066_SW014_231205,	0066_MW208_231205, 0066_MW217D_231205, 0066_SW010_231205, 0066_SW015_231205	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	11-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW016_231205, 0066_SW021_231205, 0066_SW027_231205, 0066_SW075_231205	0066_SW020_231205, 0066_SW023_231205, 0066_SW028_231205,	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	12-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW009_231205, 0066_QC302_231205, 0066_QC107_231205,	0066_SW076_231205, 0066_QC106_231205, 0066_QC108_231205	05-Dec-2023	12-Dec-2023	02-Jun-2024	✔	13-Dec-2023	02-Jun-2024	✔



Matrix: **WATER** Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids - Continued								
HDPE (no PTFE) (EP231X) 0066_MW003_231206, 0066_MW018_231206, 0066_MW063_231206, 0066_MW071_231206, 0066_MW075_231206,	0066_MW017_231206, 0066_MW025_231206, 0066_MW067_231206, 0066_MW074_231206, 0066_MW117_231206	06-Dec-2023	09-Dec-2023	03-Jun-2024	✓	09-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_MW210_231206, 0066_MW215D_231206, 0066_MW218_231206, 0066_SW005_231206	0066_MW214D_231206, 0066_MW215S_231206, 0066_SW001_231206,	06-Dec-2023	11-Dec-2023	03-Jun-2024	✓	11-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_SW017_231206, 0066_SW024_231206,	0066_SW022_231206, 0066_SW057_231206	06-Dec-2023	11-Dec-2023	03-Jun-2024	✓	12-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_QC109_231206, 0066_QC500_231206, 0066_QC502_231206,	0066_QC304_231206, 0066_QC501_231206, 0066_QC503_231206	06-Dec-2023	12-Dec-2023	03-Jun-2024	✓	13-Dec-2023	03-Jun-2024	✓



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X) 0066_MW019_231204, 0066_MW033_231204, 0066_MW036_231204, 0066_MW043_231204, 0066_MW047_231204, 0066_MW054_231204, 0066_MW062_231204, 0066_MW068_231204, 0066_MW070_231204, 0066_MW110_231204, 0066_MW121_231204,	0066_MW028_231204, 0066_MW034_231204, 0066_MW041_231204, 0066_MW046_231204, 0066_MW051_231204, 0066_MW061_231204, 0066_MW064_231204, 0066_MW069_231204, 0066_MW109_231204, 0066_MW112_231204, 0066_MW122D_231204	04-Dec-2023	09-Dec-2023	01-Jun-2024	✔	09-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW102_231204, 0066_MW213_231204,	0066_MW212_231204, 0066_SW007_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	11-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW018_231204, 0066_SW029_231204, 0066_SW073_231204, 0066_SW077_231204,	0066_SW019_231204, 0066_SW071_231204, 0066_SW074_231204, 0066_SW078_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	12-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_231204, 0066_QC104_231204, 0066_QC301_231204, 0066_QC103_231204	0066_QC102_231204, 0066_QC105_231204, 0066_QC101_231204,	04-Dec-2023	12-Dec-2023	01-Jun-2024	✔	13-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW029_231205, 0066_MW122S_231205, 0066_MW204_231205,	0066_MW030_231205, 0066_MW202_231205, 0066_MW206_231205	05-Dec-2023	09-Dec-2023	02-Jun-2024	✔	09-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW207_231205, 0066_MW209_231205, 0066_SW004_231205, 0066_SW014_231205,	0066_MW208_231205, 0066_MW217D_231205, 0066_SW010_231205, 0066_SW015_231205	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	11-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW016_231205, 0066_SW021_231205, 0066_SW027_231205, 0066_SW075_231205	0066_SW020_231205, 0066_SW023_231205, 0066_SW028_231205,	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	12-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW009_231205, 0066_QC302_231205, 0066_QC107_231205,	0066_SW076_231205, 0066_QC106_231205, 0066_QC108_231205	05-Dec-2023	12-Dec-2023	02-Jun-2024	✔	13-Dec-2023	02-Jun-2024	✔



Matrix: **WATER** Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
HDPE (no PTFE) (EP231X) 0066_MW003_231206, 0066_MW018_231206, 0066_MW063_231206, 0066_MW071_231206, 0066_MW075_231206,	0066_MW017_231206, 0066_MW025_231206, 0066_MW067_231206, 0066_MW074_231206, 0066_MW117_231206	06-Dec-2023	09-Dec-2023	03-Jun-2024	✔	09-Dec-2023	03-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW210_231206, 0066_MW215D_231206, 0066_MW218_231206, 0066_SW005_231206	0066_MW214D_231206, 0066_MW215S_231206, 0066_SW001_231206,	06-Dec-2023	11-Dec-2023	03-Jun-2024	✔	11-Dec-2023	03-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_231206, 0066_SW024_231206,	0066_SW022_231206, 0066_SW057_231206	06-Dec-2023	11-Dec-2023	03-Jun-2024	✔	12-Dec-2023	03-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC109_231206, 0066_QC500_231206, 0066_QC502_231206,	0066_QC304_231206, 0066_QC501_231206, 0066_QC503_231206	06-Dec-2023	12-Dec-2023	03-Jun-2024	✔	13-Dec-2023	03-Jun-2024	✔



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X) 0066_MW019_231204, 0066_MW033_231204, 0066_MW036_231204, 0066_MW043_231204, 0066_MW047_231204, 0066_MW054_231204, 0066_MW062_231204, 0066_MW068_231204, 0066_MW070_231204, 0066_MW110_231204, 0066_MW121_231204,	0066_MW028_231204, 0066_MW034_231204, 0066_MW041_231204, 0066_MW046_231204, 0066_MW051_231204, 0066_MW061_231204, 0066_MW064_231204, 0066_MW069_231204, 0066_MW109_231204, 0066_MW112_231204, 0066_MW122D_231204	04-Dec-2023	09-Dec-2023	01-Jun-2024	✔	09-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW102_231204, 0066_MW213_231204,	0066_MW212_231204, 0066_SW007_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	11-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW018_231204, 0066_SW029_231204, 0066_SW073_231204, 0066_SW077_231204,	0066_SW019_231204, 0066_SW071_231204, 0066_SW074_231204, 0066_SW078_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	12-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_231204, 0066_QC104_231204, 0066_QC301_231204, 0066_QC103_231204	0066_QC102_231204, 0066_QC105_231204, 0066_QC101_231204,	04-Dec-2023	12-Dec-2023	01-Jun-2024	✔	13-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW029_231205, 0066_MW122S_231205, 0066_MW204_231205,	0066_MW030_231205, 0066_MW202_231205, 0066_MW206_231205	05-Dec-2023	09-Dec-2023	02-Jun-2024	✔	09-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW207_231205, 0066_MW209_231205, 0066_SW004_231205, 0066_SW014_231205,	0066_MW208_231205, 0066_MW217D_231205, 0066_SW010_231205, 0066_SW015_231205	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	11-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW016_231205, 0066_SW021_231205, 0066_SW027_231205, 0066_SW075_231205	0066_SW020_231205, 0066_SW023_231205, 0066_SW028_231205,	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	12-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW009_231205, 0066_QC302_231205, 0066_QC107_231205,	0066_SW076_231205, 0066_QC106_231205, 0066_QC108_231205	05-Dec-2023	12-Dec-2023	02-Jun-2024	✔	13-Dec-2023	02-Jun-2024	✔



Matrix: **WATER** Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231C: Perfluoroalkyl Sulfonamides - Continued								
HDPE (no PTFE) (EP231X) 0066_MW003_231206, 0066_MW018_231206, 0066_MW063_231206, 0066_MW071_231206, 0066_MW075_231206,	0066_MW017_231206, 0066_MW025_231206, 0066_MW067_231206, 0066_MW074_231206, 0066_MW117_231206	06-Dec-2023	09-Dec-2023	03-Jun-2024	✓	09-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_MW210_231206, 0066_MW215D_231206, 0066_MW218_231206, 0066_SW005_231206	0066_MW214D_231206, 0066_MW215S_231206, 0066_SW001_231206,	06-Dec-2023	11-Dec-2023	03-Jun-2024	✓	11-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_SW017_231206, 0066_SW024_231206,	0066_SW022_231206, 0066_SW057_231206	06-Dec-2023	11-Dec-2023	03-Jun-2024	✓	12-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_QC109_231206, 0066_QC500_231206, 0066_QC502_231206,	0066_QC304_231206, 0066_QC501_231206, 0066_QC503_231206	06-Dec-2023	12-Dec-2023	03-Jun-2024	✓	13-Dec-2023	03-Jun-2024	✓



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X) 0066_MW019_231204, 0066_MW033_231204, 0066_MW036_231204, 0066_MW043_231204, 0066_MW047_231204, 0066_MW054_231204, 0066_MW062_231204, 0066_MW068_231204, 0066_MW070_231204, 0066_MW110_231204, 0066_MW121_231204,	0066_MW028_231204, 0066_MW034_231204, 0066_MW041_231204, 0066_MW046_231204, 0066_MW051_231204, 0066_MW061_231204, 0066_MW064_231204, 0066_MW069_231204, 0066_MW109_231204, 0066_MW112_231204, 0066_MW122D_231204	04-Dec-2023	09-Dec-2023	01-Jun-2024	✔	09-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW102_231204, 0066_MW213_231204,	0066_MW212_231204, 0066_SW007_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	11-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW018_231204, 0066_SW029_231204, 0066_SW073_231204, 0066_SW077_231204,	0066_SW019_231204, 0066_SW071_231204, 0066_SW074_231204, 0066_SW078_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	12-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_231204, 0066_QC104_231204, 0066_QC301_231204, 0066_QC103_231204	0066_QC102_231204, 0066_QC105_231204, 0066_QC101_231204,	04-Dec-2023	12-Dec-2023	01-Jun-2024	✔	13-Dec-2023	01-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW029_231205, 0066_MW122S_231205, 0066_MW204_231205,	0066_MW030_231205, 0066_MW202_231205, 0066_MW206_231205	05-Dec-2023	09-Dec-2023	02-Jun-2024	✔	09-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW207_231205, 0066_MW209_231205, 0066_SW004_231205, 0066_SW014_231205,	0066_MW208_231205, 0066_MW217D_231205, 0066_SW010_231205, 0066_SW015_231205	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	11-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW016_231205, 0066_SW021_231205, 0066_SW027_231205, 0066_SW075_231205	0066_SW020_231205, 0066_SW023_231205, 0066_SW028_231205,	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	12-Dec-2023	02-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW009_231205, 0066_QC302_231205, 0066_QC107_231205,	0066_SW076_231205, 0066_QC106_231205, 0066_QC108_231205	05-Dec-2023	12-Dec-2023	02-Jun-2024	✔	13-Dec-2023	02-Jun-2024	✔

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 Work Order : EM2321752
 Client : STANTEC AUSTRALIA PTY LTD
 Project : VIC_0066_PFASOMP_23



Matrix: **WATER** Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
HDPE (no PTFE) (EP231X) 0066_MW003_231206, 0066_MW018_231206, 0066_MW063_231206, 0066_MW071_231206, 0066_MW075_231206,	0066_MW017_231206, 0066_MW025_231206, 0066_MW067_231206, 0066_MW074_231206, 0066_MW117_231206	06-Dec-2023	09-Dec-2023	03-Jun-2024	✔	09-Dec-2023	03-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW210_231206, 0066_MW215D_231206, 0066_MW218_231206, 0066_SW005_231206	0066_MW214D_231206, 0066_MW215S_231206, 0066_SW001_231206,	06-Dec-2023	11-Dec-2023	03-Jun-2024	✔	11-Dec-2023	03-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_231206, 0066_SW024_231206,	0066_SW022_231206, 0066_SW057_231206	06-Dec-2023	11-Dec-2023	03-Jun-2024	✔	12-Dec-2023	03-Jun-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC109_231206, 0066_QC500_231206, 0066_QC502_231206,	0066_QC304_231206, 0066_QC501_231206, 0066_QC503_231206	06-Dec-2023	12-Dec-2023	03-Jun-2024	✔	13-Dec-2023	03-Jun-2024	✔



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X) 0066_MW019_231204, 0066_MW033_231204, 0066_MW036_231204, 0066_MW043_231204, 0066_MW047_231204, 0066_MW054_231204, 0066_MW062_231204, 0066_MW068_231204, 0066_MW070_231204, 0066_MW110_231204, 0066_MW121_231204, 0066_MW028_231204, 0066_MW034_231204, 0066_MW041_231204, 0066_MW046_231204, 0066_MW051_231204, 0066_MW061_231204, 0066_MW064_231204, 0066_MW069_231204, 0066_MW109_231204, 0066_MW112_231204, 0066_MW122D_231204	04-Dec-2023	09-Dec-2023	01-Jun-2024	✔	09-Dec-2023	01-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_MW102_231204, 0066_MW213_231204, 0066_MW212_231204, 0066_SW007_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	11-Dec-2023	01-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_SW018_231204, 0066_SW029_231204, 0066_SW073_231204, 0066_SW077_231204, 0066_SW019_231204, 0066_SW071_231204, 0066_SW074_231204, 0066_SW078_231204	04-Dec-2023	11-Dec-2023	01-Jun-2024	✔	12-Dec-2023	01-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_QC100_231204, 0066_QC104_231204, 0066_QC301_231204, 0066_QC103_231204, 0066_QC102_231204, 0066_QC105_231204, 0066_QC101_231204	04-Dec-2023	12-Dec-2023	01-Jun-2024	✔	13-Dec-2023	01-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_MW029_231205, 0066_MW122S_231205, 0066_MW204_231205, 0066_MW030_231205, 0066_MW202_231205, 0066_MW206_231205	05-Dec-2023	09-Dec-2023	02-Jun-2024	✔	09-Dec-2023	02-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_MW207_231205, 0066_MW209_231205, 0066_SW004_231205, 0066_SW014_231205, 0066_MW208_231205, 0066_MW217D_231205, 0066_SW010_231205, 0066_SW015_231205	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	11-Dec-2023	02-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_SW016_231205, 0066_SW021_231205, 0066_SW027_231205, 0066_SW075_231205, 0066_SW020_231205, 0066_SW023_231205, 0066_SW028_231205	05-Dec-2023	11-Dec-2023	02-Jun-2024	✔	12-Dec-2023	02-Jun-2024	✔	
HDPE (no PTFE) (EP231X) 0066_SW009_231205, 0066_QC302_231205, 0066_QC107_231205, 0066_SW076_231205, 0066_QC106_231205, 0066_QC108_231205	05-Dec-2023	12-Dec-2023	02-Jun-2024	✔	13-Dec-2023	02-Jun-2024	✔	

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 Work Order : EM2321752
 Client : STANTEC AUSTRALIA PTY LTD
 Project : VIC_0066_PFASOMP_23



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

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231P: PFAS Sums - Continued								
HDPE (no PTFE) (EP231X) 0066_MW003_231206, 0066_MW018_231206, 0066_MW063_231206, 0066_MW071_231206, 0066_MW075_231206,	0066_MW017_231206, 0066_MW025_231206, 0066_MW067_231206, 0066_MW074_231206, 0066_MW117_231206	06-Dec-2023	09-Dec-2023	03-Jun-2024	✓	09-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_MW210_231206, 0066_MW215D_231206, 0066_MW218_231206, 0066_SW005_231206	0066_MW214D_231206, 0066_MW215S_231206, 0066_SW001_231206,	06-Dec-2023	11-Dec-2023	03-Jun-2024	✓	11-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_SW017_231206, 0066_SW024_231206,	0066_SW022_231206, 0066_SW057_231206	06-Dec-2023	11-Dec-2023	03-Jun-2024	✓	12-Dec-2023	03-Jun-2024	✓
HDPE (no PTFE) (EP231X) 0066_QC109_231206, 0066_QC500_231206, 0066_QC502_231206,	0066_QC304_231206, 0066_QC501_231206, 0066_QC503_231206	06-Dec-2023	12-Dec-2023	03-Jun-2024	✓	13-Dec-2023	03-Jun-2024	✓



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	10	95	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	95	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	95	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	95	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
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 5.3, 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 : EM2321752

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Client : STANTEC AUSTRALIA PTY LTD

Contact : [REDACTED]

Address : [REDACTED]

Telephone : [REDACTED]

Project : VIC_0066_PFASOMP_23

Order number : 304300114

C-O-C number : 60825

Sampler : [REDACTED]

Site : HMAS Cerberus

Quote number : SY/139/19_Cerberus

No. of samples received : 99

No. of samples analysed : 95

Laboratory : [REDACTED]

Contact : [REDACTED]

Address : [REDACTED]

Telephone : [REDACTED]

Date Samples Received : 07-Dec-2023

Date Analysis Commenced : 09-Dec-2023

Issue Date : 14-Dec-2023



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]

Senior Organic Chemist

[REDACTED]



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**

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: 5481004)									
EM2321752-015	0066_MW047_231204	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.10	0.10	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.10	0.11	13.4	0% - 50%
		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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2321752-011	0066_MW036_231204	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.04	0.05	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: 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: 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: 5481005)									
EM2321752-016	0066_MW051_231204	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763 23 1	0 01	µg/L	0 06	0 06	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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2321752-017	0066_MW054_231204	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.25	0.26	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	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 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: 5481005) - continued									
EM2321752-017	0066_MW054_231204	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.02	0.03	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: 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: 5481770)									
EM2321752-029	0066_MW102_231204	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.34	0.31	9.3	0% - 20%
		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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2321752-050	0066_MW218_231206	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: 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: 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: 5481771)									
EM2321752-060	0066_SW016_231205	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.41	1.35	4.4	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763 23 1	0 01	µg/L	3 28	2 97	10 0	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.19	0.18	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.19	0.17	9.1	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.15	0.13	15.2	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2321752-078	0066_SW077_231204	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.08	0.08	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: 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: 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 5484773)									
EM2321752-056	0066_SW009_231205	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: 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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2321752-077	0066_SW076_231205	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5484773) - continued									
EM2321752-077	0066_SW076_231205	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	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: 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: 5481004)									
EM2321752-015	0066_MW047_231204	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.02	0.02	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: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EM2321752-011	0066_MW036_231204	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: 5481005)									
EM2321752-016	0066_MW051_231204	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: 5481005) - continued									
EM2321752-016	0066_MW051_231204	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
EM2321752-017	0066_MW054_231204	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: 5481770)							
EM2321752-029	0066_MW102_231204	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
EM2321752-050	0066_MW218_231206	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



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: 5481771)									
EM2321752-060	0066_SW016_231205	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.75	0.75	0.0	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.13	0.13	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.76	0.74	2.4	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.21	0.19	8.4	0% - 50%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.06	0.07	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
EM2321752-078	0066_SW077_231204	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: 5484773)									
EM2321752-056	0066_SW009_231205	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
EM2321752-077	0066_SW076_231205	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 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: 5484773) - continued									
EM2321752-077	0066_SW076_231205	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: 5481004)									
EM2321752-015	0066_MW047_231204	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
EM2321752-011	0066_MW036_231204	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: 5481005)									
EM2321752-016	0066_MW051_231204	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 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: 5481005) - continued									
EM2321752-016	0066_MW051_231204	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
EM2321752-017	0066_MW054_231204	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: 5481770)									
EM2321752-029	0066_MW102_231204	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
EM2321752-050	0066_MW218_231206	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 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: 5481770) - continued									
EM2321752-050	0066_MW218_231206	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: 5481771)									
EM2321752-060	0066_SW016_231205	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	0.12	0.12	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
EM2321752-078	0066_SW077_231204	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: 5484773)									
EM2321752-056	0066_SW009_231205	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 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: 5484773) - continued									
EM2321752-056	0066_SW009_231205	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
EM2321752-077	0066_SW076_231205	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: 5481004)									
EM2321752-015	0066_MW047_231204	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
EM2321752-011	0066_MW036_231204	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: 5481005)									
EM2321752-016	0066_MW051_231204	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: 5481005) - continued									
EM2321752-016	0066_MW051_231204	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
EM2321752-017	0066_MW054_231204	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: 5481770)									
EM2321752-029	0066_MW102_231204	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
EM2321752-050	0066_MW218_231206	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: 5481771)									
EM2321752-060	0066_SW016_231205	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: 5481771) - continued									
EM2321752-078	0066_SW077_231204	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: 5484773)									
EM2321752-056	0066_SW009_231205	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
EM2321752-077	0066_SW076_231205	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: 5481004)									
EM2321752-015	0066_MW047_231204	EP231X: Sum of PFAS	----	0.01	µg/L	0.25	0.26	3.9	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.20	0.21	4.9	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.25	0.26	3.9	0% - 20%
EM2321752-011	0066_MW036_231204	EP231X: Sum of PFAS	----	0.01	µg/L	0.04	0.05	22.2	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.04	0.05	22.2	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.04	0.05	22.2	No Limit
EP231P: PFAS Sums (QC Lot: 5481005)									
EM2321752-016	0066_MW051_231204	EP231X: Sum of PFAS	----	0.01	µg/L	0.10	0.10	0.0	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.10	0.10	0.0	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.10	0.10	0.0	0% - 50%
EM2321752-017	0066_MW054_231204	EP231X: Sum of PFAS	----	0.01	µg/L	0.29	0.31	6.7	0% - 20%

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 Work Order : EM2321752
 Client : STANTEC AUSTRALIA PTY LTD
 Project : VIC_0066_PFASOMP_23



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: 5481005) - continued									
EM2321752-017	0066_MW054_231204	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.25	0.26	3.9	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.27	0.28	3.6	0% - 20%
EP231P: PFAS Sums (QC Lot: 5481770)									
EM2321752-029	0066_MW102_231204	EP231X: Sum of PFAS	----	0.01	µg/L	0.41	0.38	7.6	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.40	0.37	7.8	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.41	0.38	7.6	0% - 20%
EM2321752-050	0066_MW218_231206	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: 5481771)									
EM2321752-060	0066_SW016_231205	EP231X: Sum of PFAS	----	0.01	µg/L	7.27	6.82	6.4	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	4.69	4.32	8.2	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	6.73	6.31	6.4	0% - 20%
EM2321752-078	0066_SW077_231204	EP231X: Sum of PFAS	----	0.01	µg/L	0.14	0.14	0.0	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.10	0.10	0.0	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.14	0.14	0.0	0% - 50%
EP231P: PFAS Sums (QC Lot: 5484773)									
EM2321752-056	0066_SW009_231205	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
EM2321752-077	0066_SW076_231205	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**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481004)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	86.5	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	92.7	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	89.7	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	94.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	96.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481005)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	85.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	91.1	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	81.3	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	95.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	78.5	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	82.3	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481770)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	88.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	85.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	88.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	100.0	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	88.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	87.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481771)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	96.5	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	99.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	100	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	112	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	94.3	65.0	140
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: 5484773)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	87.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	98.1	71.0	127



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5484773) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	102	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	115	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	87.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	96.7	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481004)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	87.5	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	89.3	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	88.7	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.0	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	91.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.5	72.0	134
EP231X: Perfluorotridecanoic acid (PFTriDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	99.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481005)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	80.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	79.7	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	82.7	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	84.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	85.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	84.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	86.9	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.9	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	87.3	72.0	134
EP231X: Perfluorotridecanoic acid (PFTriDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	75.1	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	95.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481770)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	84.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	80.5	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	91.1	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	87.7	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	89.8	71.0	133



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481770) - continued								
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	88.1	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	86.9	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	86.6	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	88.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	82.9	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481771)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	88.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	75.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	83.7	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	95.9	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	90.1	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	77.7	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	85.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	85.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5484773)								
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	78.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	84.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	89.1	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	93.3	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	84.1	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	104	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	93.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	89.0	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481004)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.1	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	119	70.0	130



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481004) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	89.5	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	92.0	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.8	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	94.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481005)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	86.1	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	97.4	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	78.5	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	93.4	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	90.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	89.7	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481770)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.5	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	107	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	91.6	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	101	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	92.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	85.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481771)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	78.4	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	88.1	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	81.6	70.0	130



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481771) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	92.7	70.0	130
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	87.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5484773)								
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	104	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.2	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	88.5	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	89.7	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481004)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 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	0.238 µg/L	94.5	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	107	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	76.8	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481005)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	90.5	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	92.0	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	98.9	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	70.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481770)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	97.1	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	86.3	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	98.1	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	86.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481771)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 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	0.238 µg/L	90.6	64.0	140



Sub-Matrix: **WATER**

Method: Compound				Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
CAS Number	LOR	Unit					Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481771) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	85.2	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	85.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5484773)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	91.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 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	118	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	84.4	70.0	130
EP231P: PFAS Sums (QCLot: 5481004)								
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: 5481005)								
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: 5481770)								
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: 5481771)								
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: 5484773)								
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**

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: 5481004)							
EM2321752-011	0066_MW036_231204	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	93.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	88.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	88.9	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	97.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	83.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	78.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481005)							
EM2321752-017	0066_MW054_231204	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	88.9	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	101	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	93.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	106	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	84.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	84.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481770)							
EM2321752-050	0066_MW218_231206	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	89.5	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	97.1	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	84.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	96.1	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	83.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	82.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5481771)							
EM2321752-060	0066_SW016_231205	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	96.9	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	85.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	98.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	79.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5484773)							
EM2321752-056	0066_SW009_231205	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	87.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	106	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	103	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	117	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	109	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	91.7	53.0	142



Sub-Matrix: **WATER**

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: 5481004)							
EM2321752-011	0066_MW036_231204	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	# 44.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	78.4	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	87.7	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	82.9	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	86.9	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	86.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	81.3	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	83.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	84.3	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	96.1	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481005)							
EM2321752-017	0066_MW054_231204	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	73.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	79.1	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	82.1	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	83.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	88.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	87.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	87.8	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	87.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	84.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	69.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	86.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481770)							
EM2321752-050	0066_MW218_231206	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	# 48.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	78.3	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	83.3	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	82.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	89.7	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	86.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	81.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	85.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	85.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.25 µg/L	71.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	88.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5481771)							
EM2321752-060	0066_SW016_231205	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	# 66.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	97.0	72.0	129



Sub-Matrix: **WATER**

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: 5481771) - continued							
EM2321752-060	0066_SW016_231205	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	94.8	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	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	86.5	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	82.3	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	81.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	75.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	79.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5484773)							
EM2321752-056	0066_SW009_231205	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	78.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	86.4	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	75.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	94.5	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	97.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	89.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	95.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	72.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	87.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	87.9	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	75.2	71.0	132
		EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481004)					
EM2321752-011	0066_MW036_231204	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	89.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	80.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	75.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	81.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	87.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	83.3	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	79.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481005)							
EM2321752-017	0066_MW054_231204	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	86.9	67.0	137



Sub-Matrix: **WATER**

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: 5481005) - continued							
EM2321752-017	0066_MW054_231204	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	93.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	83.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	84.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	91.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	84.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	82.1	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481770)							
EM2321752-050	0066_MW218_231206	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	90.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	77.8	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	83.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	80.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	95.9	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	87.1	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	83.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5481771)							
EM2321752-060	0066_SW016_231205	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	77.0	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	91.4	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	75.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	82.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	71.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	# 34.5	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	104	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5484773)							
EM2321752-056	0066_SW009_231205	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	87.2	67.0	137



Sub-Matrix: **WATER**

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: 5484773) - continued							
EM2321752-056	0066_SW009_231205	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	74.4	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	74.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	77.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	75.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	69.9	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481004)							
EM2321752-011	0066_MW036_231204	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	90.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	92.7	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	91.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	70.4	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481005)							
EM2321752-017	0066_MW054_231204	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	93.7	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	92.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	93.7	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	70.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481770)							
EM2321752-050	0066_MW218_231206	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	93.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	100	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	93.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	71.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5481771)							
EM2321752-060	0066_SW016_231205	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	91.5	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	88.4	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	# 61.0	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	72.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5484773)							
EM2321752-056	0066_SW009_231205	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	97.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	88.4	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	88.5	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	76.6	70.0	130



CERTIFICATE OF ANALYSIS

Work Order : **EM2321752**
Client : **STANTEC AUSTRALIA PTY LTD**
Contact : **[REDACTED]**
Address : **[REDACTED]**
Telephone : **[REDACTED]**
Project : **VIC_0066_PFASOMP_23**
Order number : **304300114**
C-O-C number : **60825**
Sampler : **[REDACTED]**
Site : **HMAS Cerberus**
Quote number : **SY/139/19_Cerberus**
No. of samples received : **99**
No. of samples analysed : **95**

Page : 1 of 45
Laboratory : **[REDACTED]**
Contact : **[REDACTED]**
Address : **[REDACTED]**
Telephone : **[REDACTED]**
Date Samples Received : 07-Dec-2023 13:10
Date Analysis Commenced : 09-Dec-2023
Issue Date : 14-Dec-2023 10:29



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]

Senior Organic Chemist

[REDACTED]



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: Poor matrix spike recovery for sample EM2321752-011, 060 due to sample matrix interference.
- 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: Poor matrix spike recovery for sample EM2321752-050 due to sample 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. 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 (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW003_231206	0066_MW017_231206	0066_MW018_231206	0066_MW019_231204	0066_MW025_231206
Sampling date / time				06-Dec-2023 10:57	06-Dec-2023 14:53	06-Dec-2023 14:52	04-Dec-2023 13:32	06-Dec-2023 09:39	
Compound	CAS Number	LOR	Unit	EM2321752-001	EM2321752-002	EM2321752-003	EM2321752-004	EM2321752-005	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.44	<0.02	<0.02	0.05	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.73	<0.02	<0.02	0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	11.3	0.08	<0.01	0.69	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.36	<0.02	<0.02	0.10	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	1.89	0.01	<0.01	3.56	
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	0.22	<0.02	<0.02	<0.02	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.62	<0.02	<0.02	0.09	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.14	<0.02	<0.02	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.44	<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	
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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW003_231206	0066_MW017_231206	0066_MW018_231206	0066_MW019_231204	0066_MW025_231206
Sampling date / time				06-Dec-2023 10:57	06-Dec-2023 14:53	06-Dec-2023 14:52	04-Dec-2023 13:32	06-Dec-2023 09:39	
Compound	CAS Number	LOR	Unit	EM2321752-001	EM2321752-002	EM2321752-003	EM2321752-004	EM2321752-005	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.04	
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	16.2	0.09	<0.01	4.63	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	13.2	0.09	<0.01	4.25	
Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	15.2	0.09	<0.01	4.45	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	93.4	101	105	107	102	
13C8-PFOA	---	0.02	%	100	97.4	98.9	99.6	95.8	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW028_231204	0066_MW029_231205	0066_MW030_231205	0066_MW033_231204	0066_MW034_231204
Sampling date / time				04-Dec-2023 15:01	05-Dec-2023 15:08	05-Dec-2023 15:26	04-Dec-2023 19:58	04-Dec-2023 20:02	
Compound	CAS Number	LOR	Unit	EM2321752-006	EM2321752-007	EM2321752-008	EM2321752-009	EM2321752-010	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	0.10	<0.02	<0.02	<0.02	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.16	0.04	0.02	0.02	<0.01	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.06	<0.02	<0.02	<0.02	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.49	0.01	0.03	0.01	<0.01	
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	0.10	<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	0.06	<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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW028_231204	0066_MW029_231205	0066_MW030_231205	0066_MW033_231204	0066_MW034_231204
Sampling date / time				04-Dec-2023 15:01	05-Dec-2023 15:08	05-Dec-2023 15:26	04-Dec-2023 19:58	04-Dec-2023 20:02	
Compound	CAS Number	LOR	Unit	EM2321752-006	EM2321752-007	EM2321752-008	EM2321752-009	EM2321752-010	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	2.07	0.05	0.05	0.03	<0.01	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	1.65	0.05	0.05	0.03	<0.01	
Sum of PFAS (WA DER List)	---	0.01	µg/L	1.91	0.05	0.05	0.03	<0.01	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	98.0	99.7	103	99.8	99.2	
13C8-PFOA	---	0.02	%	98.4	96.8	96.0	98.7	100	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW036_231204	0066_MW041_231204	0066_MW043_231204	0066_MW046_231204	0066_MW047_231204
Sampling date / time				04-Dec-2023 20:53	04-Dec-2023 20:01	04-Dec-2023 12:06	04-Dec-2023 20:05	04-Dec-2023 20:50	
Compound	CAS Number	LOR	Unit	EM2321752-011	EM2321752-012	EM2321752-013	EM2321752-014	EM2321752-015	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	0.03	<0.02	<0.02	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.04	0.30	<0.01	0.03	0.10	
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	0.04	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	<0.1	<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	0.03	<0.02	<0.02	0.03	
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									
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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW036_231204	0066_MW041_231204	0066_MW043_231204	0066_MW046_231204	0066_MW047_231204
Sampling date / time				04-Dec-2023 20:53	04-Dec-2023 20:01	04-Dec-2023 12:06	04-Dec-2023 20:05	04-Dec-2023 20:50	
Compound	CAS Number	LOR	Unit	EM2321752-011	EM2321752-012	EM2321752-013	EM2321752-014	EM2321752-015	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.39	<0.01	0.07	0.25	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.04	0.32	<0.01	0.07	0.20	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.04	0.36	<0.01	0.07	0.25	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	98.8	102	94.7	108	101	
13C8-PFOA	---	0.02	%	96.5	98.1	98.2	98.7	99.5	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW051_231204	0066_MW054_231204	0066_MW061_231204	0066_MW062_231204	0066_MW063_231206
Sampling date / time				04-Dec-2023 20:52	04-Dec-2023 20:56	04-Dec-2023 11:28	04-Dec-2023 11:52	06-Dec-2023 11:41	
Compound	CAS Number	LOR	Unit	EM2321752-016	EM2321752-017	EM2321752-018	EM2321752-019	EM2321752-020	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	0.25	0.24	0.26	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	0.06	<0.01	0.06	0.05	<0.01	
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	0.04	0.07	<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	0.02	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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW051_231204	0066_MW054_231204	0066_MW061_231204	0066_MW062_231204	0066_MW063_231206
Sampling date / time				04-Dec-2023 20:52	04-Dec-2023 20:56	04-Dec-2023 11:28	04-Dec-2023 11:52	06-Dec-2023 11:41	
Compound	CAS Number	LOR	Unit	EM2321752-016	EM2321752-017	EM2321752-018	EM2321752-019	EM2321752-020	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.10	0.29	0.36	0.47	0.03	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.10	0.25	0.30	0.31	0.03	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.10	0.27	0.36	0.45	0.03	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	108	102	99.9	95.3	96.6	
13C8-PFOA	---	0.02	%	100	100	97.1	98.2	97.3	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW064_231204	0066_MW067_231206	0066_MW068_231204	0066_MW069_231204	0066_MW070_231204
Sampling date / time				04-Dec-2023 10:51	06-Dec-2023 13:49	04-Dec-2023 19:58	04-Dec-2023 13:11	04-Dec-2023 14:10	
Compound	CAS Number	LOR	Unit	EM2321752-021	EM2321752-022	EM2321752-023	EM2321752-024	EM2321752-025	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	2.32	<0.02	<0.02	0.09	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.03	5.02	0.02	<0.02	0.24	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.15	62.5	0.23	<0.01	4.27	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.87	<0.02	<0.02	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.52	4.09	0.15	<0.01	0.01	
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	0.8	<0.1	<0.1	<0.1	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	2.17	0.04	<0.02	0.04	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	11.6	0.07	<0.02	0.18	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	1.46	<0.02	<0.02	0.08	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	2.06	0.01	<0.01	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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW064_231204	0066_MW067_231206	0066_MW068_231204	0066_MW069_231204	0066_MW070_231204
Sampling date / time				04-Dec-2023 10:51	06-Dec-2023 13:49	04-Dec-2023 19:58	04-Dec-2023 13:11	04-Dec-2023 14:10	
Compound	CAS Number	LOR	Unit	EM2321752-021	EM2321752-022	EM2321752-023	EM2321752-024	EM2321752-025	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.76	92.9	0.52	<0.01	4.99	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.67	66.6	0.38	<0.01	4.28	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.73	87.0	0.50	<0.01	4.75	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	97.1	105	102	105	103	
13C8-PFOA	---	0.02	%	99.5	99.1	100.0	97.9	99.2	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW071_231206	0066_MW074_231206	0066_MW075_231206	0066_MW102_231204	0066_MW109_231204
Sampling date / time				06-Dec-2023 13:51	06-Dec-2023 12:40	06-Dec-2023 12:41	04-Dec-2023 20:55	04-Dec-2023 13:49	
Compound	CAS Number	LOR	Unit	EM2321752-026	EM2321752-027	EM2321752-028	EM2321752-029	EM2321752-030	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.68	8.28	<0.02	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.06	0.66	3.22	<0.02	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.38	3.27	1.65	0.06	0.04	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.09	0.11	<0.02	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.57	1.22	0.34	0.06	
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	1.6	<0.1	<0.1	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.22	2.85	<0.02	<0.02	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.09	0.97	9.69	<0.02	<0.02	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.12	0.23	<0.02	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.15	0.09	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									
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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW071_231206	0066_MW074_231206	0066_MW075_231206	0066_MW102_231204	0066_MW109_231204
Sampling date / time				06-Dec-2023 13:51	06-Dec-2023 12:40	06-Dec-2023 12:41	04-Dec-2023 20:55	04-Dec-2023 13:49	
Compound	CAS Number	LOR	Unit	EM2321752-026	EM2321752-027	EM2321752-028	EM2321752-029	EM2321752-030	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.58	6.83	28.9	0.41	0.12	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.39	3.84	2.87	0.40	0.10	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.52	6.08	25.6	0.41	0.12	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	108	106	103	90.5	100	
13C8-PFOA	---	0.02	%	98.7	101	98.0	99.6	101	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW110_231204	0066_MW112_231204	0066_MW117_231206	0066_MW121_231204	0066_MW122D_231204
Sampling date / time				04-Dec-2023 19:53	04-Dec-2023 14:30	06-Dec-2023 14:50	04-Dec-2023 19:54	04-Dec-2023 19:53	
Compound	CAS Number	LOR	Unit	EM2321752-031	EM2321752-032	EM2321752-033	EM2321752-034	EM2321752-035	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.14	<0.02	<0.02	0.14	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.15	<0.02	<0.02	0.17	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.48	<0.01	0.01	1.25	<0.01	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	0.10	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	<0.01	<0.01	2.65	<0.01	
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	0.13	<0.02	
Perfluorohexanoic acid (PFHxA)	307 24 4	0.02	µg/L	0.24	<0.02	<0.02	0.46	<0.02	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.05	<0.02	<0.02	0.08	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.04	<0.01	<0.01	0.12	<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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW110_231204	0066_MW112_231204	0066_MW117_231206	0066_MW121_231204	0066_MW122D_231204
Sampling date / time				04-Dec-2023 19:53	04-Dec-2023 14:30	06-Dec-2023 14:50	04-Dec-2023 19:54	04-Dec-2023 19:53
Compound	CAS Number	LOR	Unit	EM2321752-031	EM2321752-032	EM2321752-033	EM2321752-034	EM2321752-035
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	1.16	<0.01	0.01	5.12	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.50	<0.01	0.01	3.90	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	1.01	<0.01	0.01	4.83	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	104	96.1	101	95.5	99.2
13C8-PFOA	----	0.02	%	101	97.7	97.8	100	100



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW122S_23120 5	0066_MW202_231205	0066_MW204_231205	0066_MW206_231205	0066_MW207_231205
Sampling date / time				05-Dec-2023 11:17	05-Dec-2023 14:38	05-Dec-2023 14:19	05-Dec-2023 15:22	05-Dec-2023 15:22
Compound	CAS Number	LOR	Unit	EM2321752-036	EM2321752-037	EM2321752-038	EM2321752-039	EM2321752-040
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.15	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.10	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.54	<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	0.26	<0.01	<0.01	<0.01	<0.01
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	0.16	<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	0.02	<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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW122S_23120 5	0066_MW202_231205	0066_MW204_231205	0066_MW206_231205	0066_MW207_231205
Sampling date / time				05-Dec-2023 11:17	05-Dec-2023 14:38	05-Dec-2023 14:19	05-Dec-2023 15:22	05-Dec-2023 15:22
Compound	CAS Number	LOR	Unit	EM2321752-036	EM2321752-037	EM2321752-038	EM2321752-039	EM2321752-040
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	1.27	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.80	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	1.17	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	99.1	107	98.6	100	99.1
13C8-PFOA	----	0.02	%	99.0	98.9	99.7	102	98.8



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW208_231205	0066_MW209_231205	0066_MW210_231206	0066_MW212_231204	0066_MW213_231204
Sampling date / time				05-Dec-2023 15:20	05-Dec-2023 15:26	06-Dec-2023 10:37	04-Dec-2023 20:03	04-Dec-2023 20:03	
Compound	CAS Number	LOR	Unit	EM2321752-041	EM2321752-042	EM2321752-043	EM2321752-044	EM2321752-045	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	0.35	1.00	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	0.61	1.25	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	7.02	11.0	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	1.04	0.22	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	27.5	0.63	
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	0.19	0.31	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	0.71	1.36	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	0.17	0.31	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	0.69	0.75	
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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW208_231205	0066_MW209_231205	0066_MW210_231206	0066_MW212_231204	0066_MW213_231204
Sampling date / time				05-Dec-2023 15:20	05-Dec-2023 15:26	06-Dec-2023 10:37	04-Dec-2023 20:03	04-Dec-2023 20:03	
Compound	CAS Number	LOR	Unit	EM2321752-041	EM2321752-042	EM2321752-043	EM2321752-044	EM2321752-045	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	38.3	16.8	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	34.5	11.6	
Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	<0.01	<0.01	36.6	15.4	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	87.5	84.6	95.6	93.3	86.0	
13C8-PFOA	---	0.02	%	102	101	100	98.3	92.7	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0066_MW214D_23120 6	0066_MW215D_23120 6	0066_MW215S_23120 6	0066_MW217D_23120 5	0066_MW218_231206
Sampling date / time				06-Dec-2023 13:51	06-Dec-2023 13:50	06-Dec-2023 13:49	05-Dec-2023 16:06	06-Dec-2023 13:52
Compound	CAS Number	LOR	Unit	EM2321752-046	EM2321752-047	EM2321752-048	EM2321752-049	EM2321752-050
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.29	7.99	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.38	8.97	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.08	2.33	48.2	0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.09	2.53	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.23	0.49	36.3	0.02	<0.01
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	1.0	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.05	2.83	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.32	14.2	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.06	1.76	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.09	2.51	<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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW214D_23120 6	0066_MW215D_23120 6	0066_MW215S_23120 6	0066_MW217D_23120 5	0066_MW218_231206
Sampling date / time					06-Dec-2023 13:51	06-Dec-2023 13:50	06-Dec-2023 13:49	05-Dec-2023 16:06	06-Dec-2023 13:52
Compound	CAS Number	LOR	Unit	EM2321752-046	EM2321752-047	EM2321752-048	EM2321752-049	EM2321752-050	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	<0.05	
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	0.31	4.10	126	0.03	<0.01	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.31	2.82	84.5	0.03	<0.01	
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.31	3.63	115	0.03	<0.01	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	98.5	100.0	105	102	93.1	
13C8-PFOA	----	0.02	%	101	101	102	99.6	98.2	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_QC100_231204	0066_QC102_231204	0066_QC104_231204	0066_QC103_231204	0066_QC106_231205
Sampling date / time				04-Dec-2023 10:52	04-Dec-2023 11:53	04-Dec-2023 15:01	04-Dec-2023 20:09	05-Dec-2023 14:20	
Compound	CAS Number	LOR	Unit	EM2321752-080	EM2321752-081	EM2321752-082	EM2321752-087	EM2321752-090	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.03	0.07	<0.02	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.03	0.03	0.11	0.04	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.16	0.29	1.34	0.36	<0.01	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.07	<0.02	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.51	0.07	0.66	0.02	<0.01	
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	0.04	<0.02	<0.02	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.02	0.06	0.08	0.03	<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	0.03	0.07	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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_QC100_231204	0066_QC102_231204	0066_QC104_231204	0066_QC103_231204	0066_QC106_231205
Sampling date / time				04-Dec-2023 10:52	04-Dec-2023 11:53	04-Dec-2023 15:01	04-Dec-2023 20:09	05-Dec-2023 14:20	
Compound	CAS Number	LOR	Unit	EM2321752-080	EM2321752-081	EM2321752-082	EM2321752-087	EM2321752-090	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.75	0.53	2.44	0.46	<0.01	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.67	0.36	2.00	0.38	<0.01	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.72	0.50	2.26	0.42	<0.01	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	89.0	113	117	115	95.2	
13C8-PFOA	---	0.02	%	84.9	92.1	91.6	91.1	84.2	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_QC108_231205	0066_QC109_231206	----	----	----
Sampling date / time				05-Dec-2023 15:28	06-Dec-2023 13:53	----	----	----
Compound	CAS Number	LOR	Unit	EM2321752-092	EM2321752-093	-----	-----	-----
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.33	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.43	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	2.36	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.14	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	2.82	----	----	----
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	0.2	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.43	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	1.88	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.47	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.76	----	----	----
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	----	----	----



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_QC108_231205	0066_QC109_231206	----	----	----
Sampling date / time				05-Dec-2023 15:28	06-Dec-2023 13:53	----	----	----
Compound	CAS Number	LOR	Unit	EM2321752-092	EM2321752-093	-----	-----	-----
				Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	9.84	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	5.18	----	----	----
Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	9.25	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	---	0.02	%	104	112	----	----	----
13C8-PFOA	---	0.02	%	84.7	86.2	----	----	----



Analytical Results

Sub-Matrix: RINSATE
 (Matrix: WATER)

Sample ID

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0066_QC301_231204	0066_QC302_231205	0066_QC304_231206	0066_QC500_231206	0066_QC501_231206
Sampling date / time					04-Dec-2023 20:07	05-Dec-2023 11:18	06-Dec-2023 13:54	06-Dec-2023 14:36	06-Dec-2023 14:37
Compound	CAS Number	LOR	Unit	EM2321752-085	EM2321752-088	EM2321752-094	EM2321752-096	EM2321752-097	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	
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	



Analytical Results

Sub-Matrix: RINSATE
 (Matrix: WATER)

Sample ID

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0066_QC301_231204	0066_QC302_231205	0066_QC304_231206	0066_QC500_231206	0066_QC501_231206
Sampling date / time					04-Dec-2023 20:07	05-Dec-2023 11:18	06-Dec-2023 13:54	06-Dec-2023 14:36	06-Dec-2023 14:37
Compound	CAS Number	LOR	Unit	EM2321752-085	EM2321752-088	EM2321752-094	EM2321752-096	EM2321752-097	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	%	108	100	98.1	104	105	
13C8-PFOA	---	0.02	%	91.7	88.7	95.3	81.4	88.7	



Analytical Results

Sub-Matrix: RINSATE
 (Matrix: WATER)

Sample ID

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0066_QC502_231206	0066_QC503_231206	----	----	----
Sampling date / time				06-Dec-2023 14:38	06-Dec-2023 14:38	----	----	----
Compound	CAS Number	LOR	Unit	EM2321752-098	EM2321752-099	-----	-----	-----
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
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	----	----	----
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	----	----	----



Analytical Results

Sub-Matrix: RINSATE
 (Matrix: WATER)

Sample ID

				0066_QC502_231206	0066_QC503_231206	----	----	----
Sampling date / time				06-Dec-2023 14:38	06-Dec-2023 14:38	----	----	----
Compound	CAS Number	LOR	Unit	EM2321752-098	EM2321752-099	-----	-----	-----
				Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	%	95.2	99.8	----	----	----
13C8-PFOA	---	0.02	%	84.2	89.8	----	----	----



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW001_231206	0066_SW004_231205	0066_SW005_231206	0066_SW007_231204	0066_SW009_231205
Sampling date / time					06-Dec-2023 13:52	05-Dec-2023 15:23	06-Dec-2023 13:48	04-Dec-2023 19:57	05-Dec-2023 15:24
Compound	CAS Number	LOR	Unit	EM2321752-051	EM2321752-053	EM2321752-054	EM2321752-055	EM2321752-056	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.04	<0.02	<0.02	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.06	<0.02	<0.02	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.49	0.04	<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	0.39	0.30	<0.01	<0.01	
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	0.07	<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	0.06	<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	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW001_231206	0066_SW004_231205	0066_SW005_231206	0066_SW007_231204	0066_SW009_231205
Sampling date / time				06-Dec-2023 13:52	05-Dec-2023 15:23	06-Dec-2023 13:48	04-Dec-2023 19:57	05-Dec-2023 15:24	
Compound	CAS Number	LOR	Unit	EM2321752-051	EM2321752-053	EM2321752-054	EM2321752-055	EM2321752-056	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.03	1.13	0.34	<0.01	<0.01	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.03	0.88	0.34	<0.01	<0.01	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.03	1.05	0.34	<0.01	<0.01	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	96.8	101	108	96.8	86.7	
13C8-PFOA	---	0.02	%	97.5	93.1	101	95.9	86.5	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW010_231205	0066_SW014_231205	0066_SW015_231205	0066_SW016_231205	0066_SW017_231206
Sampling date / time				05-Dec-2023 15:24	05-Dec-2023 15:53	05-Dec-2023 10:33	05-Dec-2023 11:08	06-Dec-2023 13:50	
Compound	CAS Number	LOR	Unit	EM2321752-057	EM2321752-058	EM2321752-059	EM2321752-060	EM2321752-061	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.40	0.18	0.19	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.38	0.20	0.19	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.09	2.50	1.35	1.41	0.05	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.16	0.08	0.15	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.26	7.56	2.44	3.28	0.06	
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	0.50	0.20	0.13	<0.02	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	2.70	1.02	0.76	0.04	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.49	0.20	0.21	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.96	0.58	0.75	0.01	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.06	0.03	0.06	<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	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW010_231205	0066_SW014_231205	0066_SW015_231205	0066_SW016_231205	0066_SW017_231206
Sampling date / time				05-Dec-2023 15:24	05-Dec-2023 15:53	05-Dec-2023 10:33	05-Dec-2023 11:08	06-Dec-2023 13:50	
Compound	CAS Number	LOR	Unit	EM2321752-057	EM2321752-058	EM2321752-059	EM2321752-060	EM2321752-061	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.12	<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	0.38	16.0	6.28	7.27	0.16	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.35	10.1	3.79	4.69	0.11	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.38	15.3	5.97	6.73	0.16	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	108	90.0	93.7	136	107	
13C8-PFOA	---	0.02	%	96.4	102	97.1	104	101	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW018_231204	0066_SW019_231204	0066_SW020_231205	0066_SW021_231205	0066_SW022_231206
Sampling date / time				04-Dec-2023 19:55	04-Dec-2023 19:57	05-Dec-2023 15:23	05-Dec-2023 15:21	06-Dec-2023 15:50	
Compound	CAS Number	LOR	Unit	EM2321752-062	EM2321752-063	EM2321752-064	EM2321752-065	EM2321752-066	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	0.07	0.02	<0.01	0.10	<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	0.01	0.06	<0.01	
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	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW018_231204	0066_SW019_231204	0066_SW020_231205	0066_SW021_231205	0066_SW022_231206
Sampling date / time					04-Dec-2023 19:55	04-Dec-2023 19:57	05-Dec-2023 15:23	05-Dec-2023 15:21	06-Dec-2023 15:50
Compound	CAS Number	LOR	Unit	EM2321752-062	EM2321752-063	EM2321752-064	EM2321752-065	EM2321752-066	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.10	0.04	0.01	0.16	<0.01	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.10	0.04	0.01	0.16	<0.01	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.10	0.04	0.01	0.16	<0.01	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	116	111	110	113	117	
13C8-PFOA	---	0.02	%	97.9	97.8	95.2	97.4	99.2	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW023_231205	0066_SW024_231206	0066_SW027_231205	0066_SW028_231205	0066_SW029_231204
Sampling date / time				05-Dec-2023 11:07	06-Dec-2023 13:48	05-Dec-2023 11:07	05-Dec-2023 15:24	04-Dec-2023 15:17	
Compound	CAS Number	LOR	Unit	EM2321752-067	EM2321752-068	EM2321752-069	EM2321752-070	EM2321752-071	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.03	0.04	0.12	
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	0.13	0.33	0.32	
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	0.13	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<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	0.05	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<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	
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	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW023_231205	0066_SW024_231206	0066_SW027_231205	0066_SW028_231205	0066_SW029_231204
Sampling date / time				05-Dec-2023 11:07	06-Dec-2023 13:48	05-Dec-2023 11:07	05-Dec-2023 15:24	04-Dec-2023 15:17	
Compound	CAS Number	LOR	Unit	EM2321752-067	EM2321752-068	EM2321752-069	EM2321752-070	EM2321752-071	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.24	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	0.06	
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	0.16	0.37	1.11	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.02	<0.01	0.16	0.37	0.44	
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.02	<0.01	0.16	0.37	1.11	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	109	132	104	116	116	
13C8-PFOA	---	0.02	%	102	103	97.6	101	94.5	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW057_231206	0066_SW071_231204	0066_SW073_231204	0066_SW074_231204	0066_SW075_231205
Sampling date / time				06-Dec-2023 13:47	04-Dec-2023 20:00	04-Dec-2023 11:17	04-Dec-2023 11:01	05-Dec-2023 15:21	
Compound	CAS Number	LOR	Unit	EM2321752-072	EM2321752-073	EM2321752-074	EM2321752-075	EM2321752-076	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.39	<0.02	<0.02	<0.02	<0.02	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.39	<0.02	<0.02	<0.02	<0.02	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	2.33	<0.01	0.02	0.09	0.03	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.14	<0.02	<0.02	<0.02	<0.02	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	2.90	<0.01	0.05	0.04	0.06	
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	0.2	<0.1	<0.1	<0.1	<0.1	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.42	<0.02	<0.02	<0.02	<0.02	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	2.32	<0.02	<0.02	<0.02	<0.02	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.55	<0.02	<0.02	<0.02	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.79	<0.01	<0.01	<0.01	<0.01	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.04	<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	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW057_231206	0066_SW071_231204	0066_SW073_231204	0066_SW074_231204	0066_SW075_231205
Sampling date / time					06-Dec-2023 13:47	04-Dec-2023 20:00	04-Dec-2023 11:17	04-Dec-2023 11:01	05-Dec-2023 15:21
Compound	CAS Number	LOR	Unit	EM2321752-072	EM2321752-073	EM2321752-074	EM2321752-075	EM2321752-076	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	10.5	<0.01	0.07	0.13	0.09	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	5.23	<0.01	0.07	0.13	0.09	
Sum of PFAS (WA DER List)	---	0.01	µg/L	9.90	<0.01	0.07	0.13	0.09	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	134	104	125	104	113	
13C8-PFOA	---	0.02	%	99.0	95.2	95.5	93.6	93.1	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW076_231205	0066_SW077_231204	0066_SW078_231204	0066_QC105_231204	0066_QC101_231204
Sampling date / time				05-Dec-2023 15:25	04-Dec-2023 20:58	04-Dec-2023 19:55	04-Dec-2023 15:18	04-Dec-2023 20:08	
Compound	CAS Number	LOR	Unit	EM2321752-077	EM2321752-078	EM2321752-079	EM2321752-083	EM2321752-086	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
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	0.08	0.02	0.14	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	0.02	0.03	0.28	0.03	
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	0.12	<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	0.05	<0.02	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	0.05	<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	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0066_SW076_231205	0066_SW077_231204	0066_SW078_231204	0066_QC105_231204	0066_QC101_231204
Sampling date / time					05-Dec-2023 15:25	04-Dec-2023 20:58	04-Dec-2023 19:55	04-Dec-2023 15:18	04-Dec-2023 20:08
Compound	CAS Number	LOR	Unit	EM2321752-077	EM2321752-078	EM2321752-079	EM2321752-083	EM2321752-086	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.23	<0.05	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	0.08	<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	0.14	0.05	1.04	0.05	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	0.10	0.05	0.42	0.05	
Sum of PFAS (WA DER List)	---	0.01	µg/L	<0.01	0.14	0.05	1.04	0.05	
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.02	%	117	103	108	86.1	105	
13C8-PFOA	---	0.02	%	95.2	92.2	93.6	88.6	90.4	



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

0066_QC107_231205

Sampling date / time

05-Dec-2023 15:27

Compound	CAS Number	LOR	Unit	Result				
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.03	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.07	----	----	----	----
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	----	----	----	----



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

0066_QC107_231205

Sampling date / time

05-Dec-2023 15:27

Compound

CAS Number

LOR

Unit

EM2321752-091

Result

EP231C: Perfluoroalkyl Sulfonamides - Continued

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	0.10	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.10	---	---	---	---
Sum of PFAS (WA DER List)	---	0.01	µg/L	0.10	---	---	---	---

EP231S: PFAS Surrogate

13C4-PFOS	---	0.02	%	114	---	---	---	---
13C8-PFOA	---	0.02	%	95.3	---	---	---	---



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

Sample Receipt Advice

Company name: Stantec Australia Pty Ltd (VIC)
Contact name: [REDACTED]
Project name: Not provided
Project ID: VIC_0066_PFASOMP_23
Turnaround time: 5 Day
Date/Time received: Dec 7, 2023 5:35 PM
Eurofins reference: 1051767

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ 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.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Results will be delivered electronically via email to [REDACTED]

Note: A copy of these results will also be delivered to the general Stantec Australia Pty Ltd (VIC) email address.

Company Name: Stantec Australia Pty Ltd (VIC)
Address: [REDACTED]

Order No.:
Report #: 1051767
Phone:
Fax:

Received: Dec 7, 2023 5:35 PM
Due: Dec 14, 2023
Priority: 5 Day
Contact Name: [REDACTED]

Project Name:
Project ID: VIC_0066_PFASOMP_23

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail

Per- and Polyfluoroalkyl Substances (PFASs)

Melbourne Laboratory - NATA # 1261 Site # 1254

X

External Laboratory

No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	0066_QC200_231204	Dec 04, 2023		Water	M23-De0016391	X
2	0066_QC201_231204	Dec 04, 2023		Water	M23-De0016392	X
3	0066_QC202_231204	Dec 04, 2023		Water	M23-De0016393	X
4	0066_QC203_231204	Dec 04, 2023		Water	M23-De0016394	X
5	0066_QC204_231204	Dec 04, 2023		Water	M23-De0016395	X
6	0066_QC205_231204	Dec 04, 2023		Water	M23-De0016396	X
7	0066_QC206_231205	Dec 05, 2023		Water	M23-De0016397	X
8	0066_QC207_231205	Dec 05, 2023		Water	M23-De0016398	X

Company Name:	Stantec Australia Pty Ltd (VIC)	Order No.:		Received:	Dec 7, 2023 5:35 PM
Address:		Report #:	1051767	Due:	Dec 14, 2023
		Phone:		Priority:	5 Day
		Fax:		Contact Name:	
Project Name:					
Project ID:	VIC_0066_PFASOMP_23				
Eurofins Analytical Services Manager :					

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
9	0066_QC208_231205	Dec 05, 2023		Water	M23-De0016399	X
10	0066_QC209_231205	Dec 05, 2023		Water	M23-De0016400	X
Test Counts						10

Stantec Australia Pty Ltd
 [REDACTED]
 [REDACTED]
 [REDACTED]

NATA Accredited
Accreditation Number 1261
Site Number 1254

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.

Report **1051767-W**
 Project name
 Project ID **VIC_0066_PFASOMP_23**
 Received Date Dec 07, 2023

Client Sample ID			066_QC200_23 1204	066_QC201_23 1204	066_QC202_23 1204	066_QC203_23 1204
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M23-De0016391	M23-De0016392	M23-De0016393	M23-De0016394
Date Sampled			Dec 04, 2023	Dec 04, 2023	Dec 04, 2023	Dec 04, 2023
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	0.02
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.03	< 0.01	0.06	0.03
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	0.01	< 0.01	0.04	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	%	103	108	127	101
13C5-PFPeA (surr.)	1	%	111	118	127	109
13C5-PFHxA (surr.)	1	%	89	97	142	101
13C4-PFHpA (surr.)	1	%	92	100	146	110
13C8-PFOA (surr.)	1	%	89	110	132	109
13C5-PFNA (surr.)	1	%	107	125	129	118
13C6-PFDA (surr.)	1	%	95	171	127	143
13C2-PFUnDA (surr.)	1	%	95	188	112	139
13C2-PFDoDA (surr.)	1	%	78	181	78	116
13C2-PFTeDA (surr.)	1	%	66	186	67	98
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-ethylperfluorooctanesulfonamidoacetic 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	%	119	89	99	130
D3-N-MeFOSA (surr.)	1	%	25	72	17	116

Client Sample ID			066_QC200_23 1204	066_QC201_23 1204	066_QC202_23 1204	066_QC203_23 1204
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M23- De0016391	M23- De0016392	M23- De0016393	M23- De0016394
Date Sampled			Dec 04, 2023	Dec 04, 2023	Dec 04, 2023	Dec 04, 2023
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	22	71	15	119
D7-N-MeFOSE (surr.)	1	%	66	115	67	88
D9-N-EtFOSE (surr.)	1	%	93	191	115	160
D5-N-EtFOSAA (surr.)	1	%	61	183	58	99
D3-N-MeFOSAA (surr.)	1	%	82	126	78	106
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.02	< 0.01	0.02	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	0.02	< 0.01	0.02	0.03
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	^{N09} 0.12	^{N09} 0.04	0.20	^{N09} 0.26
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	0.05	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	^{N09} 0.52	^{N09} 0.53	^{N09} 0.05	^{N09} 0.03
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	96	101	106	95
18O2-PFHxS (surr.)	1	%	104	113	121	110
13C8-PFOS (surr.)	1	%	93	114	128	133
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	0.23	< 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	140	118	153
13C2-6:2 FTSA (surr.)	1	%	78	127	115	125
13C2-8:2 FTSA (surr.)	1	%	94	108	91	99
13C2-10:2 FTSA (surr.)	1	%	90	191	85	125
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.64	0.57	0.25	0.29
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.53	0.53	0.09	0.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.65	0.57	0.29	0.3
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.93	0.57	0.41	0.36
Sum of PFASs (n=30)*	0.1	ug/L	0.95	0.62	0.44	0.39

Client Sample ID			066_QC204_23 1204	066_QC205_23 1204	066_QC206_23 1205	066_QC207_23 1205
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M23- De0016395	M23- De0016396	M23- De0016397	M23- De0016398
Date Sampled			Dec 04, 2023	Dec 04, 2023	Dec 05, 2023	Dec 05, 2023
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	0.04	0.13	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.08	0.08	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.02	0.04	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	0.07	0.05	< 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	%	103	76	99	72
13C5-PFPeA (surr.)	1	%	103	93	96	96
13C5-PFHxA (surr.)	1	%	84	73	73	79
13C4-PFHpA (surr.)	1	%	93	82	67	82
13C8-PFOA (surr.)	1	%	74	78	67	80
13C5-PFNA (surr.)	1	%	101	96	85	106
13C6-PFDA (surr.)	1	%	90	79	97	104
13C2-PFUnDA (surr.)	1	%	106	62	90	98
13C2-PFDoDA (surr.)	1	%	84	40	71	65
13C2-PFTeDA (surr.)	1	%	51	31	59	53
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	%	126	108	106	115
D3-N-MeFOSA (surr.)	1	%	53	31	47	43
D5-N-EtFOSA (surr.)	1	%	55	24	46	38
D7-N-MeFOSE (surr.)	1	%	75	32	67	55
D9-N-EtFOSE (surr.)	1	%	144	60	116	93
D5-N-EtFOSAA (surr.)	1	%	64	42	56	55
D3-N-MeFOSAA (surr.)	1	%	80	61	73	76
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.07	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	0.02	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.14	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	^{N09} 1.1	^{N09} 0.10	< 0.01	0.02
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.07	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	^{N09} 0.64	^{N09} 0.36	< 0.01	0.06
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			066_QC204_23 1204	066_QC205_23 1204	066_QC206_23 1205	066_QC207_23 1205
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M23- De0016395	M23- De0016396	M23- De0016397	M23- De0016398
Date Sampled			Dec 04, 2023	Dec 04, 2023	Dec 05, 2023	Dec 05, 2023
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	95	88	88	91
18O2-PFHxS (surr.)	1	%	64	105	101	107
13C8-PFOS (surr.)	1	%	103	88	109	118
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	0.21	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	0.05	< 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	%	104	106	78	92
13C2-6:2 FTSA (surr.)	1	%	94	76	60	80
13C2-8:2 FTSA (surr.)	1	%	87	72	76	96
13C2-10:2 FTSA (surr.)	1	%	81	48	80	80
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	1.74	0.46	< 0.01	0.08
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.71	0.41	< 0.01	0.06
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	1.81	0.51	< 0.01	0.08
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	2.02	1.03	< 0.05	0.08
Sum of PFASs (n=30)*	0.1	ug/L	2.25	1.03	< 0.1	< 0.1

Client Sample ID			066_QC208_23 1205	066_QC209_23 1205
Sample Matrix			Water	Water
Eurofins Sample No.			M23- De0016399	M23- De0016400
Date Sampled			Dec 05, 2023	Dec 05, 2023
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	0.29
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	0.47
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	^{N09} 3.5
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	0.39
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	0.87
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	0.02
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 (PFTeDA) ^{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	%	78	109
13C5-PFPeA (surr.)	1	%	94	99
13C5-PFHxA (surr.)	1	%	68	97
13C4-PFHpA (surr.)	1	%	68	101
13C8-PFOA (surr.)	1	%	69	81
13C5-PFNA (surr.)	1	%	100	104
13C6-PFDA (surr.)	1	%	106	61

Client Sample ID			066_QC208_23 1205	066_QC209_23 1205
Sample Matrix			Water	Water
Eurofins Sample No.			M23- De0016399	M23- De0016400
Date Sampled			Dec 05, 2023	Dec 05, 2023
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
13C2-PFUnDA (surr.)	1	%	98	71
13C2-PFDoDA (surr.)	1	%	73	59
13C2-PFTeDA (surr.)	1	%	50	81
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	%	125	104
D3-N-MeFOSA (surr.)	1	%	67	47
D5-N-EtFOSA (surr.)	1	%	63	42
D7-N-MeFOSE (surr.)	1	%	98	36
D9-N-EtFOSE (surr.)	1	%	142	59
D5-N-EtFOSAA (surr.)	1	%	64	54
D3-N-MeFOSAA (surr.)	1	%	81	65
Perfluoroalkyl sulfonic acids (PFSA)				
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	0.32
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	0.09
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	0.52
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	^{N09} 3.0
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	0.19
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	^{N09} 3.9
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	88	75
18O2-PFHxS (surr.)	1	%	106	116
13C8-PFOS (surr.)	1	%	122	117
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				
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	%	80	147
13C2-6:2 FTSA (surr.)	1	%	67	123
13C2-8:2 FTSA (surr.)	1	%	90	77
13C2-10:2 FTSA (surr.)	1	%	73	52

Client Sample ID			066_QC208_23 1205	066_QC209_23 1205
Sample Matrix			Water	Water
Eurofins Sample No.			M23- De0016399	M23- De0016400
Date Sampled			Dec 05, 2023	Dec 05, 2023
Test/Reference	LOR	Unit		
PFASs Summations				
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	6.9
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	4.77
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	7.77
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	12.74
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	13.56

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
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	Dec 07, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Dec 07, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Dec 07, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Dec 07, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Dec 07, 2023	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name:

Address:

Project Name:

Project ID:

Stantec Australia Pty Ltd (VIC)

VIC_0066_PFASOMP_23

VIC_0066_PFASOMP_23

Order No.:

Report #:

Phone:

Fax:

1051767

Received:

Due:

Priority:

Contact Name:

Dec 7, 2023 5:35 PM

Dec 15, 2023

5 Day

Eurofins Analytical Services Manager :

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	066_QC200_2 31204	Dec 04, 2023		Water	M23-De0016391	X
2	066_QC201_2 31204	Dec 04, 2023		Water	M23-De0016392	X
3	066_QC202_2 31204	Dec 04, 2023		Water	M23-De0016393	X
4	066_QC203_2 31204	Dec 04, 2023		Water	M23-De0016394	X
5	066_QC204_2 31204	Dec 04, 2023		Water	M23-De0016395	X
6	066_QC205_2 31204	Dec 04, 2023		Water	M23-De0016396	X
7	066_QC206_2 31205	Dec 05, 2023		Water	M23-De0016397	X
8	066_QC207_2 31205	Dec 05, 2023		Water	M23-De0016398	X

Company Name: Stantec Australia Pty Ltd (VIC)
Address: [REDACTED]
[REDACTED]
[REDACTED]

Order No.:
Report #: 1051767
Phone:
Fax:

Received: Dec 7, 2023 5:35 PM
Due: Dec 15, 2023
Priority: 5 Day
Contact Name: [REDACTED]

Project Name:
Project ID: VIC_0066_PFASOMP_23

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail

Per- and Polyfluoroalkyl Substances (PFASs)

Melbourne Laboratory - NATA # 1261 Site # 1254

9	066_QC208_2 31205	Dec 05, 2023		Water	M23-De0016399	X
10	066_QC209_2 31205	Dec 05, 2023		Water	M23-De0016400	X
Test Counts						10

Internal Quality Control Review and Glossary

General

- 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.
- All soil/sediment/solid results are reported on a dry weight basis unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion unless otherwise stated.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
- 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 date of sampling; 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 7 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	

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 (<i>bis</i> -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 5.4
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 70 – 130%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 5.4, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "NT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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	< 0.01			0.01	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 (PFTriDA)	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							
Perfluoroalkyl sulfonic acids (PFASs)							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
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							
PFASs Summations							
Sum (PFHxS + PFOS)*	ug/L	-			0.01	N/A	
Sum of US EPA PFAS (PFOS + PFOA)*	ug/L	-			0.01	N/A	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	-			0.01	N/A	
Sum of WA DWER PFAS (n=10)*	ug/L	-			0.05	N/A	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	75			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	78			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	67			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	70			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	83			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanoic acid (PFNA)			%	79			50-150	Pass	
Perfluorodecanoic acid (PFDA)			%	74			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)			%	73			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)			%	72			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)			%	56			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)			%	71			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)			%	78			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)			%	71			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)			%	98			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)			%	62			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)			%	77			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)			%	65			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)			%	63			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)									
Perfluorobutanesulfonic acid (PFBS)			%	74			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)			%	76			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	87			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	71			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)			%	70			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	95			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)			%	71			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	50			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	67			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)			%	71			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	76			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)	M23-De0015461	NCP	%	74			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M23-De0015461	NCP	%	82			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M23-De0015461	NCP	%	67			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M23-De0015461	NCP	%	71			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M23-De0015461	NCP	%	84			50-150	Pass	
Perfluorononanoic acid (PFNA)	M23-De0015461	NCP	%	83			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M23-De0015461	NCP	%	72			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M23-De0015461	NCP	%	77			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M23-De0015461	NCP	%	76			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M23-De0009887	NCP	%	49			50-150	Fail	Q08
Perfluorotetradecanoic acid (PFTeDA)	M23-De0015461	NCP	%	65			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances									
				Result 1					
Perfluorooctane sulfonamide (FOSA)	M23-De0015461	NCP	%	76			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M23-De0015461	NCP	%	68			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M23-De0015461	NCP	%	93			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M23-De0015461	NCP	%	86			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M23-De0015461	NCP	%	82			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M23-De0015461	NCP	%	69			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M23-De0015461	NCP	%	62			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M23-De0015461	NCP	%	76			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M23-De0015461	NCP	%	77			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M23-De0015461	NCP	%	78			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M23-De0015461	NCP	%	61			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M23-De0015461	NCP	%	66			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M23-De0015461	NCP	%	93			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M23-De0015461	NCP	%	74			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M23-De0015461	NCP	%	52			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M23-De0015461	NCP	%	66			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M23-De0015461	NCP	%	70			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M23-De0015461	NCP	%	73			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M23-De0015461	NCP	%	69			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)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M23-De0011198	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M23-De0011198	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M23-De0011198	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
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).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:



Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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APPENDIX

D

FIELD RECORDS AND CALIBRATION
CERTIFICATES

Table D1: Groundwater Field Records

Event	Monitoring Well Status	Monitoring Well ID	Alternative ID	Date	Easting	Northing	Top of Well Casing Elevation (mAHD)	Depth to Base of Monitoring Well (mbtoc)	Depth to Groundwater (mbtoc)	Corrected Water Elevation (mAHD)	Observations	Turbidity	Temp (Co)	DO (mg/L)	EC (us/Cm)	TDS=	pH	Eh (mV)
E9	Gauge Only	MW001	-	30/11/2023	340957.936	5751023.442	3.387	6.128	0.515	2.872	-	-	-	-	-	-	-	-
E9	Gauge Only	MW002	-	30/11/2023	340957.36	5751020.823	3.199	7.032	0.3	2.899	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW003	-	5/12/2023	340726.925	5750917.992	3.199	6.174	1.556	1.643	Clear	Low	16	1.16	9573	6222.45	6.53	-64.7
E9	Gauge and Sample	MW009	GW03-VT0001	5/12/2023	344422.407	5750966.336	NS	15.063	dry	-	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW017	GW08-VT0069	6/12/2023	341084.09	5751939.43	8.52	6.7	5.183	3.337	Cloudy	Low	16.6	1.5	333.6	216.84	5.38	113.2
E9	Gauge and Sample	MW018	GW09-VT0067	6/12/2023	341051.07	5751979.43	10.82	8.57	7.433	3.387	Cloudy	Low	18.6	0.94	649	421.85	5.58	-8.9
E9	Gauge and Sample	MW019	GW01-VT0191	4/12/2023	341617.818	5751865.986	9.442	9.4	8.26	1.182	Clear	No	23.8	4.73	225.2	146.38	6.12	100.3
E9	Gauge and Sample	MW025	GW02-VT0363	5/12/2023	343011.535	5751202.034	5.182	4.2	3.47	1.712	Black	High	16.5	0.4	18419	11972.35	8.51	-270.3
E9	Gauge and Sample	MW027	GW04-VT0363	5/12/2023	343060.329	5751353.957	10.431	10.25	Dry	-	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW028	GW01-VT0365	4/12/2023	341369.89	5751555.48	4.34	4.352	2.224	2.116	Clear	No	22.6	0.85	1941	1261.65	6.71	-87.2
E9	Gauge and Sample	MW029	GW02-VT0365	5/12/2023	341229.44	5751511.41	2.93	4.437	1.889	1.041	Clear, sediment particles suspended in sleeve	Medium	18.8	2.15	15888	10327.2	6.53	77.4
E9	Gauge and Sample	MW030	GW03-VT0365	5/12/2023	341230.09	5751593.79	2.51	4.45	1.431	1.079	Clear, with suspended black particles	Low	18.4	0.58	33362	21685.3	6.6	-60.4
E9	Gauge Only	MW031	GW04-VT0365	30/11/2023	341360.92	5751663.39	5.59	8.115	3.869	1.721	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW033	GW02-VT0366	4/12/2023	341777.324	5751318.385	2.949	3.09	1.871	1.078	Cloudy	No	18.9	0.78	807	524.55	6.57	-39.5
E9	Gauge and Sample	MW034	GW01-VT0367	4/12/2023	342099.405	5751506.437	3.099	8.7	2.925	0.174	Cloudy	Low	18	0.71	29452	19143.8	6.49	-17.5
E9	Gauge and Sample	MW036	GW03-VT0367	4/12/2023	342094.859	5751740.642	2.378	6.05	1.528	0.850	Clear	Low	16.8	0.84	19715	12814.75	6.94	-66.7
E9	Gauge Only	MW040	GW01-VT0369	30/11/2023	342016.951	5751690.692	3.385	8.8	2.545	0.840	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW041	GW02-VT0369	4/12/2023	341950.006	5751689.404	3.554	3.98	0.885	2.669	Brown	High	20.1	0.63	851	553.15	6.68	-51.9
E9	Gauge and Sample	MW043	GW01-VT0370	4/12/2023	341594.131	5752133.435	6.988	8.8	4.765	2.223	Clear	No	18.9	0.93	3933	2556.45	5.43	48.2
E9	Gauge and Sample	MW046	GW01-VT0371	4/12/2023	341975.8	5751417	3.116	5.83	2.585	0.531	Cloudy	Low	20.9	3.19	1226	796.9	5.83	15.5
E9	Gauge and Sample	MW047	GW02-VT0371	4/12/2023	341985.4	5751412	3.204	5.72	2.595	0.609	Cloudy	Low	20.4	1.81	380	247	5.32	57.1
E9	Gauge and Sample	MW051	GW01-VT0372	4/12/2023	341850.1	5751484	3.493	4.95	1.935	1.558	Clear	No	20.8	0.93	351.4	228.41	5.33	41
E9	Gauge Only	MW052	GW02-VT0372	30/11/2023	341851.757	5751438.003	3.493	4	1.795	1.698	-	-	-	-	-	-	-	-
E9	Gauge Only	MW053	GW03-VT0372	30/11/2023	341919.355	5751437.169	3.498	5	2.05	1.448	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW054	GW01-VT0373	4/12/2023	341777.114	5751477.348	8.507	12.16	7.498	1.009	Clear	No	18.2	3.43	4337	2819.05	4.87	88.4
E9	Gauge Only	MW056	GW03-VT0373	30/11/2023	341746.479	5751463.449	7.999	12.15	6.956	1.043	-	-	-	-	-	-	-	-
E9	Gauge Only	MW057	GW01-VT0375	30/11/2023	340826.96	5751184.764	8.1807	7.14	4.876	3.305	-	-	-	-	-	-	-	-
E9	Gauge Only	MW058	GW02-VT0375	30/11/2023	340835.469	5751120.059	8.403	7.115	5.037	3.366	-	-	-	-	-	-	-	-
E9	Gauge Only	MW060	GW01-VT0366	30/11/2023	341828.997	5751299	0.7	2.94	1.45	-0.750	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW061	MW44R	4/12/2023	341585.18	5752145.83	7	8.9	4.155	2.845	Clear	No	19	0.98	790	513.5	5.16	127.1
E9	Gauge and Sample	MW062	MW045R	4/12/2023	341585.32	5752140.89	7.02	8.921	4.14	2.880	Clear	No	19.6	1.29	995	646.75	4.92	210.3
E9	Gauge and Sample	MW063	MW0115R	6/12/2023	341247.76	5751928.05	10.95	10.63	7.665	3.285	cloudy	No	17.8	1.37	2549	1656.85	5.38	35.3
E9	Gauge and Sample	MW064	MW100R	3/12/2023	341205.06	5752201.31	10.5	7.77	6.913	3.587	Clear	No	19	2.85	681	442.65	6.49	107.4
E9	Gauge Only	MW065	MW101R	30/11/2023	341204.41	5752189.82	10.86	8.826	7.369	3.491	-	-	-	-	-	-	-	-

Event	Monitoring Well Status	Monitoring Well ID	Alternative ID	Date	Easting	Northing	Top of Well Casing Elevation (mAHD)	Depth to Base of Monitoring Well (mbtoc)	Depth to Groundwater (mbtoc)	Corrected Water Elevation (mAHD)	Observations	Turbidity	Temp (Co)	DO (mg/L)	EC (us/Cm)	TDS=	pH	Eh (mV)
E9	Gauge and Sample	MW066	MW021R	3/12/2023	341151.17	5752286.81	9.294	-	Unable to sample - buried under concrete driveway	-	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW067	-	6/12/2023	341108.33	5751942.47	9.31	9.5	5.715	3.595	Clear	No	16.8	3.3	418.3	271.895	5.45	10.7
E9	Gauge and Sample	MW068	-	4/12/2023	342077.93	5751585.78	0.949	6.85	2.233	-1.284	Clear	No	18.5	0.9	9766	6347.9	6.85	-26.1
E9	Gauge and Sample	MW069	-	4/12/2023	341607.99	5751816.86	9.53	8.925	dry, touching top of hydrasleeve	-	Clear	No	15.3	7.4	2735	1777.75	6.71	35.7
E9	Gauge and Sample	MW070	-	4/12/2023	341586.74	5751784.65	9.67	8.61	8.236	1.434	Slightly cloudy	No	21.5	4.38	638	414.7	5.75	164.3
E9	Gauge and Sample	MW071	-	6/12/2023	341604.26	5751807.18	9.55	11.08	8.204	1.346	Brown	High	18.5	6.93	732	475.8	6.93	20.6
E9	Gauge Only	MW073	-	30/11/2023	341072.495	5751964.519	9.799	9.81	6.466	3.333	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW074	-	6/12/2023	341165.898	5751947.962	11.614	9.91	8.348	3.266	Brown	High	17.4	2.6	9889	6427.85	4.81	173.5
E9	Gauge and Sample	MW075	-	6/12/2023	341147.945	5752029.658	12.92	12.902	9.573	3.347	Cloudy to brown	Medium	19.8	1.39	3923	2549.95	4.5	233.7
E9	Gauge and Sample	MW102	-	4/12/2023	342017.194	5751693.494	3.394	4.49	1.03	2.364	Clear	No	20.9	0.71	745	484.25	7	-49.5
E9	Gauge Only	MW103	-	30/11/2023	341024.49	5751715.895	-	-	Could not locate	-	-	-	-	-	-	-	-	-
E9	Gauge Only	MW104	-	30/11/2023	341983.227	5751663.853	-	-	Destroyed, paved over carpark	-	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW109	-	-	341535.165	5751847.19	10.377	10	8.692	1.685	Clear	No	20.9	3.77	435	282.75	6.5	89.7
E9	Gauge and Sample	MW110	-	3/12/2023	342066.016	5752093.768	2.89	5.41	1.396	1.494	Clear	Low	17.7	1.15	11985	7790.25	6.75	-58.2
E9	Gauge and Sample	MW111	-	-	342002.139	5751955.021	3.143	-	Unable to locate	-	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW112	-	4/12/2023	341456.313	5751682.434	10.569	11	8.91	1.659	Slightly cloudy	Low	20.5	4.91	261.5	169.975	6.59	118
E9	Gauge and Sample	MW117	-	6/12/2023	340960.544	5752067.852	11.779	10.045	8.141	3.638	Cloudy	Low	20.3	5.09	228.3	148.395	5.2	176.4
E9	Gauge Only	MW119	-	30/11/2023	340728.18	5751523.642	2.965	8.132	2.115	0.850	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW121	-	3/12/2023	341073.706	5751796.553	2.908	5.5	2.836	0.072	Cloudy	Low	16.7	196	3016	1960.4	5.92	1.4
E9	Gauge and Sample	MW122D	-	3/12/2023	341111.103	5751691.256	1.904	6.863	0.236	1.668	Clear	No	16.6	1.24	1844	1198.6	5.65	29.3
E9	Gauge and Sample	MW122S	-	4/12/2023	341111.278	5751690.46	1.431	1	0.05	1.381	Brown	High	17.7	1.93	28474	18508.1	6.26	12.7
E9	Gauge Only	MW201	-	30/11/2023	341981.08	5752296.14	1.104	9.772	0.388	0.716	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW202	-	5/12/2023	340258.242	5752526.204	12.39	11.15	7.18	5.210	Cloudy	Low	17.7	2.67	4895	3181.75	4.86	244.8
E9	Gauge Only	MW203	-	30/11/2023	339998.62	5752724.87	16.5	11.76	10.17	6.330	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW204	-	5/12/2023	339777.39	5753343.23	13.74	11.245	4.416	9.324	Clear	No	19	1.3	5066	3292.9	5.27	234.3
E9	Gauge Only	MW205	-	30/11/2023	340197.57	5753349.37	7.69	10.631	0.707	6.983	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW206	-	5/12/2023	340868.24	5753364.79	4.752	12.07	0.979	3.773	Clear	Low	20.3	1.24	1533	996.45	5.76	15.5
E9	Gauge and Sample	MW207	-	5/12/2023	342279.48	5752784.17	8.2	11.79	5.729	2.471	Clear	Low	17.1	1.51	594	386.1	5.7	41.6
E9	Gauge and Sample	MW208	-	5/12/2023	342053.22	5753004.39	7.69	11.96	4.808	2.882	Clear	No	16.4	5.2	1470	955.5	6.08	37.3
E9	Gauge and Sample	MW209	-	5/12/2023	341589.27	5753229.03	13.44	11.68	9.457	3.983	Greeny black	High	16.4	0.78	2973	1932.45	5.57	-22.7
E9	Gauge and Sample	MW210	-	5/12/2023	340288.85	5752002.53	2.26	8.21	0.504	1.756	Clear, brown at bottom of sleeve	Low	17.8	1.43	3442	2237.3	5.48	173.1
E9	Gauge Only	MW211	-	30/11/2023	340546.77	5751337.35	9.02	11.872	5.814	3.206	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW212	-	3/12/2023	341024.49	5751715.895	1.36	3.12	0.856	0.504	Cloudy brown	Medium	19.5	4.87	22330	14514.5	6.82	-9.7
E9	Gauge and Sample	MW213	-	3/12/2023	341053.863	5751701.31	1.377	3.146	0.89	0.487	Brown	High	18.1	1.63	47534	30897.1		6.1
E9	Gauge and Sample	MW214D	-	6/12/2023	341178.496	5751864.728	8.361	7.19	5.155	3.206	Cloudy	Medium	15.7	3.64	604	392.6	7.05	3.9
E9	Gauge Only	MW214S	-	30/11/2023	341177.442	5751865.375	8.458	7.81	5.274	3.184	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW215D	-	6/12/2023	341122.982	5751920.368	9.248	12.38	6.156	3.092	Clear	No	16.7	4.73	1511	982.15	4.94	23
E9	Gauge and Sample	MW215S	-	6/12/2023	341121.908	5751920.498	9.261	8.88	6.021	3.240	Clear	No	16	2.67	974	633.1	4.62	31.9
E9	Gauge and Sample	MW217D	-	5/12/2023	340887.749	5750873.248	4.731	9.136	1.733	2.998	Clear	No	17.2	0.77	11870	7715.5	6.48	24.3
E9	Gauge Only	MW217S	-	30/11/2023	340887.527	5750874.208	4.763	9	2.729	2.034	-	-	-	-	-	-	-	-
E9	Gauge and Sample	MW218	-	5/12/2023	340948.59	5750947.27	4.948	10.63	1.934	3.014	Clear	No	16.4	0.86	7962	5175.3	6.44	-79.5

Table D2: Surface Water Field Records

Event	Location ID	Date	Easting	Northing	Survey Point Height (mAHD)	Sample depth (m)	Water Depth (m)	Corrected Water Elevation (mAHD)	Flow	Flow (m/s)	Dissolved Oxygen (DO- mg/L)	Electrical Conductivity (EC- µS/Cm)	TDS	pH	Redox Potential (Eh-m/V)	Temperature (°C)	Turbidity	Observations
E9	SW001	6/12/2023	341795.31	5751273.54	0.595	0.1	0.8	0.495	No	0	6.53	1834	1192.1	8.18	-14.4	17.6	No	Drain outlet clogged by sand. Sampled from pit immediately north.
E9	SW002	-	341820.33	5751287.95	1.757	-	-	-	-	-	-	-	-	-	-	-	-	Location dry
E9	SW003	4/12/2023	342117.80	5751490.97	1.884	-	-	-	-	-	-	-	-	-	-	-	-	Pipe Dry
E9	SW004	5/12/2023	341709.41	5751301.80	1.72	0.1	0.2	1.62	No	0	2.49	54684	35544.6	7.37	-8.3	26.2	Low	
E9	SW005	6/12/2023	341921.37	5751285.18	1.412	0.1	0.15	1.312	No	0	8.03	335.1	217.815	7.46	8.2	18.2	No	Rubbish around pipe outlet
E9	SW006	-	341975.87	5751276.80	1.032	-	-	-	-	-	-	-	-	-	-	-	-	Unable to sample. Drain outlet clogged with sand/sediment.
E9	SW007	4/12/2023	342113.02	5751592.46	1.384	0.05	0.05	1.334	No	0	4.16	33413	21718.45	7.17	-13.3	23.5	Low	Sampled at slack tide
E9	SW009	5/12/2023	342078.94	5752219.91	1.256	0.1	0.15	1.156	No	0	5.92	55723	36219.95	7.53	3.8	28.8	Medium	Sampled at slack tide
E9	SW010	5/12/2023	341954.77	5752301.61	1.573	0.1	0.4	1.473	Low	0.01	3.54	757	492.05	6.69	-12.2	18.6	Medium	Sheen on surface of water body
E9	SW014	5/12/2023	340882.39	5750823.97	2.607	0.1	1.5	2.507	No	0	9.59	7655	4975.75	9.56	-32.1	25.6	Low	Sheen and foaming on surface of pond
E9	SW015	4/12/2023	340866.88	5750870.41	2.868	0.1	1	2.768	No	0	0.25	4200	2730	7.15	-25.4	22.6	Low	Plant matter on surface
E9	SW016	4/12/2023	340889.22	5750890.82	2.833	0.1	0.6	2.733	No	0	0.01	1833	1191.45	7.86	-30.9	22.1	Low	
E9	SW017	5/12/2023	340892.42	5750858.35	0.975	0.1	0.2	0.875	No	0	3.13	40979	26636.35	7.25	-128.6	18.2	Low	Sampled on outgoing/slack tide
E9	SW018	3/12/2023	342077.37	5752015.08	1.551	0.1	0.15	1.451	Low	0.3	5.81	8491	5519.15	6.8	4.6	20.6	Low	
E9	SW019	3/12/2023	342017.44	5752072.52	2.289	0.1	0.2	2.189	No	0	4.73	385.2	250.38	6.32	-8.6	18.5	High	Algae and plant/reed matter throughout water
E9	SW020	5/12/2023	342148.44	5752180.09	1.921	0.1	0.3	1.821	High	0.8	5.31	24353	15829.45	7.21	1.8	22.6	Medium	Foaming near rocks
E9	SW021	5/12/2023	340880.62	5753367.50	6.115	0.1	0.2	6.015	No	0	3.1	1864	1211.6	7.28	-56.2	18.7	No	
E9	SW022	6/12/2023	340205.87	5753356.15	9.152	0.1	0.2	9.052	No	0	3.59	5030	3269.5	5.99	95.9	22	Medium	Overgrown with reeds, stagnant water body
E9	SW023	4/12/2023	340766.68	5750735.72	2.357	0.1	0.2	2.257	No	0	4.31	5779	3756.35	6.46	23.8	21.5	Medium	Organic matter in water body
E9	SW024	6/12/2023	340247.33	5752084.87	2.956	0.2	0.5	2.756	No	0	4.82	1279	831.35	6.57	25.4	16.9	Low	Reeds and algae on surface
E9	SW027	4/12/2023	341262.39	5751455.81	1.989	0.1	0.5	1.889	Low	0.05	4.76	25746	16734.9	6.99	5.4	20.3	Medium	Sampled on outgoing/slack tide
E9	SW028	5/12/2023	341169.77	5751564.58	1.417	0.1	0.15	1.317	Low	0.3	4.74	12630	8209.5	6.98	94.3	24.3	Low	Streams running at low water level
E9	SW029	4/12/2023	341348.30	5751660.62	NS	0.08	0.1	-		0.1	4.42	432.9	281.385	7.53	51.7	25.2	No	Open surface water drain
E9	SW030	-	341348.30	5751660.62	4.525	-	-	-	-	-	-	-	-	-	-	-	-	Dry
E9	SW057	5/12/2023	340919.49	5750735.22	2.992	0.1	1	2.892	No	0	7.33	5621	3653.65	9.11	-186.6	19.5	Low	Reeds and organic matter on surface of water
E9	SW071	4/12/2023	-	-	NS	0.1	2	-	No	0	4.36	50160	32604	8.03	-15.2	21.8	No	Sampled at slack tide
E9	SW072	-	-	-	NS	-	-	-	-	-	-	-	-	-	-	-	-	Dry
E9	SW073	4/12/2023	-	-	NS	0.1	0.15	-	No	0	1.83	383	248.95	6.82	60.9	18.9	No	Overgrown with vegetation/reeds
E9	SW074	4/12/2023	-	-	NS	0.1	0.3	-	No	0	5.51	457	297.05	6.81	77.3	21.5	No	Area overgrown with vegetation, algae on water surface
E9	SW075	5/12/2023	-	-	NS	0.1	0.1	-	No	0	6.73	412.4	268.06	7.28	-17.9	18.7	No	Plants and reeds in water
E9	SW076	5/12/2023	-	-	NS	0.1	0.3	-	No	0	4.95	41491	26969.15	6.92	-3.9	26.5	Low	
E9	SW077	3/12/2023	-	-	NS	0.1	0.2	-	No	0	4.34	593	385.45	6.1	-22	18.8	Low	Algae throughout water
E9	SW078	4/12/2023	-	-	NS	0.1	0.5	-	Medium	0.4	0.84	707	459.55	6.71	-46.9	19.7	No	Sampled on outgoing/slack tide

F3.01 – Quality Control Sample Register

Project Details

Project Name: Cerberus PFAS OMP	Job Number: DEF19008
Site Address: HMAS Cerberus	PP/PM: AM
Client Company/Contact: Cardno	Date: 07/12/2023
Persons Present: MB+JL	Notes By: MB

Quality Control Requirements

Standard QC Sample Requirements (see Proposal for project specific details)

Rinsate Blank:	1/day (even if only placed on hold)
DI Water Blank:	1/day (even if only placed on hold)
Trip Blank:	1/day or 1/esky (if volatiles are suspected or present at site)
Blind Replicate (Primary List):	1 in 20 primary samples
Split Replicate (Secondary List):	1 in 20 primary samples

Labelling

Samples to be labelled **QC##_date** where “##” is a numerical sequence commencing at **01** for each field event and **date** is the date of sampling in ddmmyyyy format (e.g. **QC01_03112010**)

QC Sample e.g. QC01_03112010	Primary Sample	Description
QC100/200	MW064	
QC101/201	SW078	
QC102/202	MW062	
QC103/203	MW041	
QC104/204	MW028	
QC105/205	SW029	
QC106/206	MW204	
QC107/207	SW075	
QC108/208	MW208	
QC109/209	SW057	
QC300	Rinsate – IP	A1413105
QC301	Rinsate – IP	A1413105
QC302	Rinsate – Pole	A1413105
QC303	Rinsate – IP	A1413105
QC304	Rinsate – Pole	A1413105
QC305	Rinsate – IP	A1413105
QC500	Trip blank	
QC501	Trip blank	
QC502	Trip blank	
QC503	Trip blank	

F3.01 Equipment Calibration Report

YSI ProPlus Water Quality Meter

This YSI ProPlus Water Quality Meter has been performance checked as per the manufacturer's guidelines¹.

Unit Type: YSI ProPlus
Serial Number: 19H102165

4/12/23

The unit has been checked for and comprises of the following items:

Item	Present	Damaged or Absent?
Carry case	✓	☐
Attached sensors (x4)	✓	☐
Spare Batteries	✓	☐
Connector Cable	✓	☐
Instruction Manual	✓	☐

The following tests and operational checks have been conducted on the unit:

Item	Test Completed	Test Passed
WQM unit electrodes cleaned and checked	✓	✓
Operations check (screen functions)	✓	✓
Temperature check	✓	✓

Calibration:

Sensor	Cal. Solution	Value	Reading
pH	pH: Buffer Solution 4.00	4.00	3.98
pH	pH: Buffer Solution 7.00	7.00	7.03
pH	pH: Buffer Solution 10.00	10.00	—
Redox	Standard ORP solution	2.76mV @ 20°C	2.80mV @ 20°C
O ₂	Ambient Air for 100% Dissolved Oxygen	100%	✓
O ₂	Sodium Sulphite for 0% Dissolved Oxygen	0%	✓
Conductivity	Standard Conductivity Solution	251 µS/cm @ 20°C	247 mV @ 20°C

Checked/ Calibrated by: [REDACTED]

Signed: [REDACTED]

Date: 4/12/23

¹ YSI Professional Plus – Calibration Tips; Rev A, December 2010.



Equipment Bump Test Record

YSI ProPlus Water Quality Meter

Project Management
YSI Bump Test Record

Date of Bump Test	Job Number	Unit No. Brand/Model	Ambient Air Oxygen Calibration	Zero % Oxygen Solution Calibration	Standard Concentrations (Y if present)	Ambient Temperature (°C)	Bump Test Readings	Bump Test Readings within 15%?	Comment	Test by (Name)	(Signature)
5/12	01E9008 LEAPPLUS	YSI Pro Plus (Cordless 15 second number: 35002185)	100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: 251 µS/cm @ 20 °C ORP: 251 mV @ 20 °C	20.1	pH 4.00: 4.06 pH 7.00: 7.02 pH 10.00: 10.00 EC: 251 µS/cm @ 20 °C ORP: 246 mV @ 20 °C	pH 4.00: Y/N pH 7.00: Y/N pH 10.00: Y/N EC: Y/N ORP: Y/N Temp: Y/N			
6/12	"	"	100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: 251 µS/cm @ 20 °C ORP: 251 mV @ 20 °C	17.5	pH 4.00: 4.21 pH 7.00: 7.08 pH 10.00: 10.00 EC: 251 µS/cm @ 18 °C ORP: 235 mV @ 18 °C	pH 4.00: Y/N pH 7.00: Y/N pH 10.00: Y/N EC: Y/N ORP: Y/N Temp: Y/N	PH 4 recal		
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			
			100% Saturation? Y/N	0% Calibration Y/N	pH 4.00 pH 7.00 pH 10.00 EC: µS/cm @ °C ORP: mV @ °C		pH 4.00: pH 0.2 pH 7.00: pH 0.2 pH 10.00: pH 0.2 EC: µS/cm @ °C ORP: mV @ °C	Y/N Y/N Y/N Y/N Y/N Y/N			

Instrument Quality Report

Interface Meter



Enqip #: 21121
Company: Stantec Australia Pty Ltd
Consultant: [REDACTED]
PO #: 304300114
Certificate #: 31081

INSTRUMENT IDENTIFICATION

Instrument Type: Solinst Interface Meter
Model Number: 122
Serial Number: 311998

INSPECTION RECORD

Battery:	PASS	Water Tone:	PASS
Tape Condition:	PASS	Hydrocarbon Tone:	PASS

Tested By: [REDACTED]

Test Date: 29/11/2023



116 Thistlethwaite St, South Melbourne 3205
P 1300 218 987

E info@enqip.com.au | W www.enqip.com.au

Equipment Calibration Form

YSI ProPlus



Enqip #: 21121
Company: Stantec Australia Pty Ltd
Consultant: [REDACTED]
PO #: 304300114
Certificate #: 31082

INSTRUMENT IDENTIFICATION

Model Number: 6050000
Serial Number: 18L100379
Instrument Type: YSI ProPlus

INSPECTION RECORD

Batteries Checked: PASS **Date & Time:** PASS
Electrodes Cleaned/Checked: PASS **Temperature:** PASS

CALIBRATION DETAILS

Sensor	Cal Solution	Value	Reading
pH	Buffer 4.00	4.00 pH	4.00 pH
	Buffer 7.00	7.00 pH	7.00 pH
Redox	Standard ORP	234.5 mV @ 20.0 °C	234.5 mV
O ₂	Zero Dissolved Oxygen	0.0 %	0.0 %
	Air	100.0 %	100.0 %
Conductivity	Standard Conductivity	2.76 mS/cm	2.76 mS/cm

Calibration Successful: YES

Calibrated By: [REDACTED]

Test Date: 29/11/2023



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Date of Bump Test	Ambient Air Oxygen Calibration	Zero % Oxygen Solution Calibration	Standard Concentrations	Bump Test Reading	Bump Test Readings Accepted?	Test by (Name)	(Signature)
5/12	100% Saturation? ☒ N	0% Calibration? ☒ N	pH 4.00 ☒ Y/N pH 7.00 ☒ Y/N pH 10.00 ☒ Y/N EC: $\mu\text{S/cm}$ @ 25°C ☒ Y/N Redox: mV @ 25°C ☒ Y/N	pH 4.00: 4.06 pH 7.00: 7.01 pH 10.00: 10.00 EC: 11670 Redox: 235 @ 20	☒ N ☒ N ☒ N ☒ N ☒ N		
6/12	100% Saturation? ☒ N	0% Calibration? ☒ N	pH 4.00 ☒ Y/N pH 7.00 ☒ Y/N pH 10.00 ☒ Y/N EC: $\mu\text{S/cm}$ @ 25°C ☒ Y/N Redox: mV @ 25°C ☒ Y/N	pH 4.00: 4.18 pH 7.00: 7.15 pH 10.00: 10.00 EC: 10953 Redox: 248 @ 17.5	☒ N ☒ N ☒ N ☒ N ☒ N		
	100% Saturation? ☐ Y ☐ N	0% Calibration? ☐ Y ☐ N	pH 4.00 ☐ Y/N pH 7.00 ☐ Y/N pH 10.00 ☐ Y/N EC: $\mu\text{S/cm}$ @ 25°C ☐ Y/N Redox: mV @ 25°C ☐ Y/N	pH 4.00: pH 7.00: pH 10.00: EC: Redox:	Y/N Y/N Y/N Y/N Y/N		
	100% Saturation? ☐ Y ☐ N	0% Calibration? ☐ Y ☐ N	pH 4.00 ☐ Y/N pH 7.00 ☐ Y/N pH 10.00 ☐ Y/N EC: $\mu\text{S/cm}$ @ 25°C ☐ Y/N Redox: mV @ 25°C ☐ Y/N	pH 4.00: pH 7.00: pH 10.00: EC: Redox:	Y/N Y/N Y/N Y/N Y/N		
	100% Saturation? ☐ Y ☐ N	0% Calibration? ☐ Y ☐ N	pH 4.00 ☐ Y/N pH 7.00 ☐ Y/N pH 10.00 ☐ Y/N EC: $\mu\text{S/cm}$ @ 25°C ☐ Y/N Redox: mV @ 25°C ☐ Y/N	pH 4.00: pH 7.00: pH 10.00: EC: Redox:	Y/N Y/N Y/N Y/N Y/N		

APPENDIX

E

DATA QUALITY REVIEW

Data Quality Review

HMAS Cerberus, VIC, 3920

This Appendix reviews the Quality Assurance (QA) and Quality Control (QC) documentation. Quality assurance encompasses the actions, procedures, checks and decisions undertaken to ensure sample integrity and representativeness, and the reliability and accuracy of analysis results. The QA documentation should also include an indication of the Data Quality Objectives sought in relation to each significant action, test or process involved in the Assessment.

QC activities measure the effectiveness of the QA procedures by undertaking testing, and then comparing results to previously established objectives. QC work will include the internal laboratory testing as well as results of QC samples submitted such as trip blanks and duplicates. The quality of the information and/or data is deemed satisfactory when the QC results demonstrate that agreed objectives have been met.

Cardno, now Stantec undertook a review of its QA/QC as part of the data validation exercise. The findings are summarised below.

QA/QC Aspects	Evidence and Evaluation
QA Documentation	
Sampling and Analysis Quality Plan and Data Quality Objectives	Cardno, now Stantec was engaged by Department of Defence (Defence) to carry out the PFAS Ongoing Monitoring Plan (OMP) of HMAS Cerberus, VIC, 3920 (the Site). The monitoring event commenced on 30 November 2023 until 6 December 2023 and is in general accordance with the scope and limitations presented in Cardno, now Stantec's Sampling and Analysis Quality Plan (SAQP) of 23 January 2024 (Our Ref: 20231130_OMP002.6.2_Cerberus_SAQP_Rev9). The assessment was carried out in general compliance with the following: ▪ Australian Standard (2005), AS 4482-2005 Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 - Non-volatile and semi-volatile compounds. Withdrawn, but referred to for state of knowledge. ▪ Department of Defence (2021), Contamination Management Manual (DCMM), Annex L – Data Management, August 2019, Amended June 2021. ▪ Department of Defence (2019b), Pollution Prevention Management Manual – Annex 1L: Pollution Prevention Guidance - Routine Water Quality Monitoring. ▪ Department of Defence, Department of Energy (2018), Quality System Manual Schedule B15 USEPA DQO Process. ▪ EPA Victoria (2009), Industrial Waste Resources Guidelines, Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication 701. ▪ Heads of Environmental Protection Authority's Australia and New Zealand (HEPA) (2020), PFAS National Environmental Management Plan (NEMP) Version 2.0, January 2020. ▪ National Environment Protection Council (NEPC) (1999) National Environmental Protection (Assessment of Site Contamination) Measure (as amended 2013) (ASC NEPM). ▪ National Health and Medical Research Council (NHMRC) (2019), Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water, August 2019. ▪ USEPA (2006), Guidance for the Data Quality Objectives Process (EPA QA/G-4).

QA/QC Aspects	Evidence and Evaluation
	A quality control program was implemented during the investigation and the quality assurance procedures used have been reiterated in the report. The investigation was carried out in accordance with the Safe Work method Statements (SWMS) and Health, Safety and Environmental Management Plan (HSEMP) for the site. Detailed work plans were also provided for each phase of investigation and are outlined in the SAQP. The Data Quality Objectives were expressed in terms of the purpose of the assessment and the relevant assessment criteria.
Data Validation Report	This review constitutes a data validation review. This was supported by an Esdat generated "QAQC Checker" excel report, summarised in Table B3, Appendix B.
Data Representativeness	
Holding Times	Groundwater and surface water sample analysis holding times were in conformance with EPA Publication IWRG701 2009 ' <i>Sampling and Analysis of Waters, Wastewaters, Soils and Wastes</i> '.
Background Samples	No background samples were collected as part of this assessment.
Equipment Decontamination	The decontamination methodology conducted during this investigation is documented in the body of the report, and was in general conformance with the SAQP. Reusable equipment (e.g. interface meter, water quality meter, telescopic pole) was rinsed with Liquinox® and deionised water after use between each location.
Laboratory Re-analysis	Laboratory re-analysis was requested to confirm order of magnitude increases/and or significant changes in results at the following locations: MW019, MW069, MW122S, MW121, SW005, SW010, SW023, SW018 and QC201. All reanalysis results were found to be consistent with the original results with the following exception: Reanalysis of QC201 confirmed the initial analysis was incorrect and reanalysis results were consistent with the primary and duplicate sample.
Data Precision and Accuracy	
QC Testing – Blind Replicates (Primary Lab)	Groundwater - Acceptance Criteria: RPD < 30% - Groundwater Samples Analysed: 49 - Blind Replicate Samples Analysed: 6 - Blind Replicate Analyte Pairs: 168 (excludes 'analytes' that are a summation of other analytes) - Number of Analyte Pairs Exceeding Criteria: 5 - Percentage of Analyte Pairs Exceeding Criteria: 2.98% The RPD exceedances observed were generally minor and likely attributed to the low concentration of analyte pairs. This is not considered to impact the results of the investigation. The RPD results are presented in Table B3, Appendix B.
	Surface water - Acceptance Criteria: RPD < 30 % - Surface water Samples Analysed: 28 - Blind Replicate Samples Analysed: 4 - Blind Replicate Analyte Pairs: 112 (excludes 'analytes' that are a summation of other analytes) - Number of Analyte Pairs Exceeding Criteria: 2 - Percentage of Analyte Pairs Exceeding Criteria: 1.78% The RPD exceedances observed were generally minor and likely attributed to the low concentration of analyte pairs. This is not considered to impact the results of the investigation. The RPD results are presented in Table B3, Appendix B.

QA/QC Aspects	Evidence and Evaluation
QC Testing – Field Splits (Secondary Lab)	Groundwater - Acceptance Criteria: RPD < 30% - Groundwater Samples Analysed: 49 - Blind Replicate Samples Analysed: 6 - Blind Replicate Analyte Pairs: 168 (excludes 'analytes' that are a summation of other analytes) - Number of Analyte Pairs Exceeding Criteria: 5 - Percentage of Analyte Pairs Exceeding Criteria: 2.98% The RPD exceedances observed were generally minor and likely attributed to the low concentration of analyte pairs. This is not considered to impact the results of the investigation. RPD results are presented in Table B3, Appendix B. Surface water - Acceptance Criteria: RPD < 30 % - Surface water Samples Analysed: 28 - Blind Replicate Samples Analysed: 4 - Blind Replicate Analyte Pairs: 112 (excludes 'analytes' that are a summation of other analytes) - Number of Analyte Pairs Exceeding Criteria: 7 - Percentage of Analyte Pairs Exceeding Criteria: 6.25% The RPD exceedances observed were generally minor and likely attributed to the low concentration of analyte pairs. This is not considered to impact the results of the investigation. RPD results are presented in Table B3, Appendix B.
Trip Blanks	Four trip blanks were collected, and laboratory tested for PFAS. All analytes were reported below the limit of reporting (LOR). Trip blank results are presented in Table B4, Appendix B.
Laboratory Internal QC	Evidence of the laboratories internal QC testing is present and complete. Both ALS (the primary laboratory) and Eurofins-mgt performed internal QC with adequate testing and mostly satisfactory results for matrix spikes, method blanks and laboratory duplicates.
Laboratory Method Detection Limit	Laboratory reports indicate the method detection limits were generally lower than the respective assessment criteria.
NATA endorsement of laboratory reports	Laboratory reports were stamped with the NATA endorsement stamp and signature. Laboratory reports are included in Appendix C of this report.
Calibration of Field Equipment	All field equipment used was calibrated by the field personnel. Certificates are included in Appendix D of this report. Additionally, daily bump tests were performed of the water quality meter throughout the monitoring event.
Decontamination and Equipment Blanks	Three rinsate blanks were collected during the investigation. Rinsate blank samples were tested for PFAS which all reported a concentration below the laboratory LOR. Results are shown in Table B4, Appendix B.
Data Comparability	
Full Review of Data	Once all results have been received, Cardno, now Stantec undertake a full review of the data for any anomalies in consideration of historical data at each location (where available), such as first-time detections or new exceedances being reported at locations which have not had detections or exceedances previously. Where potentially anomalous data is identified or suspected, further confirmatory measures were undertaken such as re-extraction and reanalysis of the sample by the laboratory and/or additional data quality review. A total of 9 samples were requested for re-extraction and reanalysis as listed above.

QA/QC Aspects	Evidence and Evaluation
	The instrument runs were reviewed by the laboratory and the results reconfirmed by reanalysis from a second sample bottle. All reanalysis results were found to be consistent with the original results with the following exception: Reanalysis of QC201 confirmed the initial analysis was incorrect and reanalysis results were consistent with the primary and duplicate sample.
Standard Procedures	Fieldwork procedures are detailed in the report and followed the work methods outlined in the SAQP.
Qualified Personnel	Staff involved in managing and reviewing the project and those involved in fieldwork are qualified personnel.
Volatile Losses	Volatile losses are not applicable to PFAS.
Sample Integrity	Field Chain of Custody forms are included in Appendix C of this report and demonstrate sample integrity.
Data Completeness	
Completeness of Test Program	The scope of work undertaken was generally consistent with that set out in the SAQP. Variations to the SAQP are detailed in the Factual Report.
Validity of Data Set	The data quality review indicates no significant systematic errors in the data collection process for surface water and groundwater and therefore, the data set used as the basis for the assessment is considered valid and complete.

APPENDIX

F

INFORMATION ABOUT ENVIRONMENTAL REPORTS

About Site Environmental Assessment Reports

1. Introduction

This document explains the Environmental Site Assessment (ESA) process and the context that applies to the use of Environmental Reports issued by Cardno now Stantec.

2. What is an ESA?

Environmental Site Assessments (ESA) are undertaken for a range of purposes, specific to the brief issued by the client in each case. The scope may include one or a combination of any of the following:

- ☐ A factual report of the condition of a portion of the site or one aspect of an entire site.
- ☐ Assessment of the contamination levels in soil to be removed from a site – a waste classification assessment.
- ☐ Validation of the success of remediation of a site or a portion of a site.
- ☐ Provision of a professional opinion about the suitability of a site for one or more uses, in terms of its contamination status.

The scope of any ESA needs to be defined at the outset.

An ESA is not an Environmental Audit. Such audits are undertaken in accordance with the provisions of regulations enacted in various states of Australia, and are referred to as Site Audits in some jurisdictions. Statutory audits provide certification by EPA accredited auditors that a site is suitable for one or more uses. An ESA may provide similar advice but cannot be used in place of an audit if the latter is required by regulation in any instance. However in some circumstances and jurisdictions an ESA is sufficient to provide “environmental sign-off” of a site.

An ESA may be undertaken for due diligence purposes, to establish whether the site has been impacted to the extent that some beneficial uses of the site may be precluded. Due diligence audits in many cases may be completed as non-statutory Audits, although in some jurisdictions they can also be statutory audits, if defined as such at the outset.

3. The ESA Process

The Client generally initiates the ESA process by specifying a brief which identifies the specific objectives of the assessment. If not, it is the consultants' duty to so specify the ESA

In the case of an ESA to provide an opinion about the suitability of the site for use, it would be conducted in accordance with NEPM (Site Assessment). Such ESA would not commence until a thorough site history assessment (Phase 1 Assessment: to identify the potential for significant contamination at a site) is conducted. However, where the history is unclear, a broad screening of chemical parameters can be used to test environmental media. This normally includes a broad range of organic and inorganic compounds and elements, often referred to as an Environmental Screen.

(In the case of an ESA for a purpose other than to provide an opinion about the suitability of the site for use, it is not always necessary to undertake a Phase 1 assessment.)

The ESA requires sampling of soil at representative locations across the site. A NATA accredited laboratory performs the analysis of soil. It is impractical for all of the soil to be assessed. The ESA is often based on a statistical method of grid or random sampling, augmented by targeted sampling at locations known or suspected to be contaminated. Guidance on sampling strategy and density is provided in Australian Standard AS4482.1–2005. However, some considerable degree of judgement is still required in the application of any sampling and testing strategy. For example the blanket application of the “hot spot” method presented in this standard is often inappropriate given its limitations.

The field program also investigates the likelihood of contamination below the site surface. Field investigations must sample and test fill as well as the natural soils. If contamination is found then it is common for further work to be undertaken to characterise, to the extent practical, its vertical and horizontal extent. However, where fill is encountered and testing shows it to be uncontaminated, it must be realised that the heterogeneous nature of the material might mean that not all pockets of contaminated material can be detected using normal sampling regimes.

EPA guidelines for auditors, that may be relevant for an ESA, indicate the need in all cases to consider the potential for groundwater contamination in any site. This does not mean all sites need to be drilled to sample groundwater, but it is most often the case. Most hydrogeological settings and groundwater conditions are complex and vary in space and time. The condition of groundwater is investigated to identify if any beneficial use or environmental value of groundwater is precluded due to contamination.

As previously stated for soil, all groundwater at the site cannot be tested. The environmental investigations are conducted in accordance with industry standards and guidelines (e.g. EPA Vic Pub 668). This provides a level of confidence that a sufficiently comprehensive assessment of the groundwater at the site is achieved.

Where an investigation shows that groundwater is polluted, consideration should be given to assessing the risks and the need for and practicality of any clean up.

4. Environmental Assessment Report

The ESA Report details the findings of the ESA. It provides summary information on the site definition, the reasons for the assessment and other relevant facts. It reviews the scope and quality of the site investigations, laboratory testing and data analyses undertaken. These reports also present a review of the contamination status of the site, the need for any further clean up, and an opinion on the suitability of the site for a range of beneficial uses and land uses such as “residential – low density”, “commercial” etc, as appropriate.

However, as noted above, some ESA have a narrow scope such as for classification of waste soil for removal from site, and do not make conclusions on suitability of site for use.

The ESA Report generally includes copies of other documents and reports, necessary to support the assessment findings, presented as appendices. These can contain more detailed information than the body of the ESA Report. Care should be taken to also read the appended documents and the ESA report in full.

Cardno now Stantec generally issues reports in electronic form (e-Report) on CD ROM. ESA Reports are issued in this format as Adobe Acrobat™ PDF files. However, a paper copy of the executive summary of the ESA Report is generally issued to the client, and others as required by the brief or by regulation.

5. Limitations of Environmental Assessment Report

The ESA Report is prepared in a manner that can be easily read by a lay person with a legitimate interest in the contamination status of the site, such as the site owner or occupier, EPA and Local Planning Authority. The ESA report is not intended for use by other parties or for other purposes. Anyone who uses the assessment report for purposes other than specified in the report, does so at their own risk.

The site should only be used for one or more of the beneficial uses and land uses identified in the ESA as suitable.

The conditions and qualifications may apply to the suitability of the site for use, and it is the responsibility of the Client to be cognizant of and accept these in accepting the report. Cardno now Stantec are only responsible for the issuing of the ESA report but accepts no liability for the costs incurred in the implementation of ESA findings.

The ESA provides a “snapshot” of the site conditions at the time of the site investigation. Consequently, the report may not be valid at a later time if there has been any change to the contamination status of the site in that time. Verification of the status of the site may be required in cases where a significant time has elapsed, or site conditions have changed since the assessment and audit.

The ESA is necessarily limited by constraints such as time, cost and available information; although normal professional practice at the time has been applied with all due care to prepare the report. A necessary requirement of this process is the horizontal and vertical interpolation of data from discrete locations. However, site conditions are generally not homogenous and some discrepancies will occur between the actual and predicted results at locations not directly sampled. There is a risk that contamination may occur at the site and not be identified by a competent investigation and assessment. The approach adopted in sampling (a combination of statistically based grid and judgmental sampling) seeks to reduce, but cannot eliminate, this risk.

Where unexpected occurrences of contamination arise, subsequent to the issue of the ESA Report, Cardno now Stantec should be permitted to make an interpretation of these facts in relation to the ESA Report findings. Consequently, the Client should inform Cardno now Stantec and seek their opinion. Cardno now Stantec accepts no liability for costs incurred due to such unexpected

occurrences, given the inherent uncertainties in the assessment process.

Cardno now Stantec uses information provided by other parties as the basis for the ESA, and reliance on this information is at the discretion of Cardno now Stantec. However, however Cardno now Stantec cannot guarantee any of the facts, findings or conclusions presented by other parties. Cardno now Stantec will not be liable for the use of information, provided by others that is subsequently found to be intentionally misleading.

The ESA Report is not and does not purport to be anything other than a contaminated land ESA. It is not a geotechnical report and bore logs reproduced are for interpretation of the likely distribution of contamination. They are not intended for geotechnical interpretations and may not be adequate for this purpose.

The ESA Report is not intended to be a comprehensive analysis of the presence and associated risk of asbestos in buildings and services. Where asbestos in buildings and services is known or likely, the report may only caution that an appropriately qualified person be engaged to undertake demolition to avoid contamination of the site.

Cardno now Stantec

19 August 2022

Appendix D Stantec OMP sampling event report – May 2024 (Stantec 2024b)

PFAS OMP Factual Report

Biannual Sampling Event May 2024

HMAS Cerberus

DEF19008



Prepared for
Department of Defence
30 July 2024

 **Cardno**

now

 **Stantec**

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Our report is based on information made available by the client. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to Cardno is both complete and accurate. Whilst, to the best of our knowledge, the information contained in this report is accurate at the date of issue, changes may occur to the site conditions, the site context or the applicable planning framework. This report should not be used after any such changes without consulting the provider of the report or a suitably qualified person.

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Chemical Names

DOC	Dissolved Organic Carbon
DO	Dissolved Oxygen
PFAS	Per- and Poly-fluoroalkyl Substances
PFHxS	Perfluorohexane Sulfonate
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate
TDS	Total Dissolved Solids (salinity of water)
TSS	Total Suspended Solids

Technical Terms

AFFF	Aqueous Film-Forming Foam
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ANZG	Australia and New Zealand Guidelines
AS	Australian Standard
AST	Above-ground Storage Tank
COC	Chain of Custody
DCMM	Defence Contamination Management Manual
DSI	Detailed Site Investigation
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EPA	Environment Protection Authority
HEPA	Heads of Environmental Protection Authority
IA	Investigation Area
LOR	Limit of Reporting
N/A	Not Applicable
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
MA	Management Area
QA	Quality Assurance
QC	Quality Control
RPD	Relative Percentage Difference
SAQP	Sampling and Analysis Quality Plan
SWL	Standing Water Level
UXO	Unexploded Ordnance

Units

ha	Hectares
mAHD	Metres Australian Height Datum
mBGL	Metres Below Ground Level
mbTOC	Metres below Top of Casing
mg/kg	Milligram per Kilogram (approximately equivalent to ppm)
mg/L	Milligram per Litre
ppm	Parts per Million
µg/L	Micrograms per Litre
µS/cm	Micro Siemens per Centimetre (Electrical Conductivity - Water)

Site Specific

OMP	Ongoing Monitoring Plan
FTG	Fire Training Ground
EDMS	Environmental Data Management Software
WTP	Water Treatment Plant

1 Introduction

1.1 Background

Cardno now Stantec (Cardno) was engaged by the Australian Department of Defence (“Defence”) to carry out the Per- and Poly-Fluoroalkyl Substances (PFAS) Ongoing Monitoring Plan (OMP) at HMAS Cerberus, VIC 3920 (“the Site”). The location and layout of the Site are shown on Figure 1, presented in Appendix A.

The OMP was carried out in accordance with the scope and limitations presented in Cardno’s Sampling and Analysis Quality Plan (SAQP):

- > Cardno, 31 May 2024, Reference: DEF19008, ‘*PFAS Ongoing Monitoring Plan Sampling and Analysis Quality Plan (SAQP) HMAS Cerberus, Rev 10*’.

For the purposes of this report:

- > “The Site” is defined as HMAS Cerberus, Victoria, and includes the channel and intertidal zone within Hanns Inlet, as shown by the yellow polygon on Figure 1, Appendix A.
- > The “management area” (MA) is defined as comprising Hanns Inlet and the northern half of the Site, thus coinciding with the investigation area (IA) for the intrusive component of the Detailed Site Investigation (DSI) works, as shown by the blue polygon on Figure 1, Appendix A. It should be noted that the southern portion of the Site was excluded from the DSI works due to the presence of unexploded ordnance (UXO), however it was not considered to affect the completeness of the DSI as there are no known or suspected Aqueous Film Forming Foam (AFFF) sources or pathways within this portion of the Site (Aurecon 2018c).

1.2 Purpose & Objectives

The objective of the OMP is to assess the changes in the nature and extent of PFAS within the environment, specifically where there is an identified potentially elevated risk to a receptor, or a potential future risk to a receptor, associated with Defence’s historical use of legacy AFFF.

The purpose of this PFAS OMP factual report is to provide an up-to-date status of the condition of the Site as it is currently understood in relation to the most recent sampling event.

The objectives of the report are:

- > To provide a succinct summary of the tenth sampling event of the OMP (E10) conducted in May 2024 sampling event and provision of analytical results with supporting tables and figures.
- > To provide confirmation of the current understanding of risk.
- > To provide supporting data for the assessment of management actions, where relevant.

1.3 Relevant Guidelines

This assessment has been undertaken in general accordance with applicable industry standards for a site investigation for the purpose, objectives and scope identified in this report. These standards are set out in:

- > Australian and New Zealand Guidelines, 2018, Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- > Australian Standard AS 4482-2005, 2005, Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 – Non-volatile and semi-volatile compounds (withdrawn as pending revision, referred to for ‘state of knowledge’).
- > Department of Defence, Department of Energy, 2018, Quality System Manual Schedule B15.
- > Heads of Environmental Protection Authority’s Australia and New Zealand (HEPA), 2020, PFAS National Environmental Management Plan (NEMP), Version 2.0, January 2020.
- > National Environment Protection Council (NEPC), 2013, National Environmental Protection (Assessment of Site Contamination) Measure (as amended 2013) (ASC NEPM).

- > National Health and Medical Research Council (NHMRC), 2019, Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water, August 2019.
- > Standards Australia, 1998, AS/NZ 5667:1998 Water quality – sampling.
- > U.S. Environmental Protection Agency (USEPA), 2006, Guidance for the Data Quality Objectives Process (EPA QA/G-4).
- > USEPA, 2002, Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8).

2 Scope of Work

Cardno carried out the following tasks in order to satisfy the purpose and objectives of this assessment.

2.1 Review / Revision of the SAQP

Cardno undertook a review and update of the SAQP prior to commencement of sampling, and a new surface water location to monitor the bioretention basin was included. The SAQP will be reviewed and revised (as required) prior to the next monitoring event scheduled for November 2024.

2.2 Groundwater Monitoring

Sampling of selected groundwater bores was performed in general accordance with the SAQP, applying methods set out in Section 3 of this report. The groundwater bores monitored as part of the OMP are presented in Table 2-1, and are shown on Figures 2 and 3, Appendix A.

Table 2-1 Groundwater Monitoring Locations

Monitoring Area	Location ID
On-site – Sampled (50)	MW003, MW017, MW018, MW019, MW025, MW028, MW029, MW030, MW033, MW034, MW036, MW041, MW043, MW046, MW047, MW051, MW054, MW061, MW062, MW063, MW064, MW067, MW068, MW069, MW070, MW071, MW074, MW075, MW102, MW109, MW110, MW112, MW117, MW121, MW122D, MW122S, MW202, MW204, MW206, MW207, MW208, MW209, MW210, MW212, MW213, MW214D, MW215D, MW215S, MW217D, MW218.
On-site – Gauge only (19)	MW001, MW002, MW031, MW040, MW052, MW053, MW056, MW057, MW058, MW060, MW065, MW073, MW119, MW201, MW203, MW205, MW211, MW214S, MW217S.

2.3 Surface Water Monitoring

The surface water sampling locations monitored as part of the OMP are presented in Table 2-2, and are shown on Figure 4, Appendix A.

Table 2-2 Surface Water Monitoring Locations

Monitoring Area	Location ID
On-site (34)	SW001, SW002, SW003, SW004, SW005, SW006, SW007, SW009, SW010, SW014, SW015, SW016, SW017, SW018, SW019, SW020, SW021, SW022, SW023, SW024, SW027, SW028, SW029, SW030, SW057, SW071, SW072, SW073, SW074, SW075, SW076, SW077, SW078, SW090*.
*New Location (as of May 2024) to be sampled to monitor outflow from bioretention basin 5 as agreed with Defence. As the water level was significantly below the discharge level to generate an outflow during sampling event E10, water sample was collected from stagnant water within the bioretention basin.	

2.4 Data Management

All the data included in the report have been collected, uploaded to the ESdat database and reviewed according to the data management requirements of the Defence Contamination Management Manual (DCMM) Annex L (Defence, 2021).

3 Methodology

3.1 Groundwater Sampling Methodology

Groundwater monitoring was undertaken using the HydraSleeve™ method as detailed in Table 3-1.

Table 3-1 Groundwater Sampling Method

Activity	Details
Date of Field Activity	6 May 2024 to 10 May 2024
Well Gauging	Standing Water Level (SWL) was gauged using an interface probe, and measured against a specified mark at the top of the well casing. A consolidated groundwater gauging event (initial gauging round) was undertaken across the first two days of the monitoring event to the extent practicable. Wells which had specific or difficult access constraints were not included.
Groundwater Field Parameters	Groundwater water quality field parameters were recorded with a water quality meter after sample collection using extra sample water from within the deployed HydraSleeve™ decanted into a clean jar. The following field parameters were recorded using a water quality meter: - pH - Electrical conductivity (EC). - Oxidation reduction potential (ORP). - Dissolved oxygen (DO). - Temperature. Field parameters measured by the water quality meter were recorded on field data records. All field instruments (e.g. water quality meter) were calibrated by the equipment supplier to optimise the accuracy of the measurements taken. Bump tests were also completed daily by field staff during the monitoring event. Calibration certificates are provided in Appendix D. Field observations such as colour, presence of suspended solids, turbidity, and the presence of odours, sheen, oily film, nuisance organisms, floating debris or frothing were also recorded on field sampling sheets, if relevant.
Deployment of HydraSleeves™	HydraSleeves™ were deployed near the base of wells (approximately 0.5 to 0.8 m above the base), or a minimum of 2.5 m within the screen interval. A top weight was utilised if water depth of screen required compression of the HydraSleeve™
Retrieval of HydraSleeves™ (Sample Collection)	Samples were collected using a continuous pull method at a rate of approximately 30 cm per second, allowing the water to pass through the check valve into the sample sleeve. Samples were discharged immediately (to minimise changes in chemistry) via a discharge tube. All HydraSleeves™ were removed from all the wells after sampling.
Decontamination procedure	New HydraSleeves™ were used at each groundwater monitoring well, thus removing the need for decontamination. All re-usable sampling equipment was thoroughly washed using PFAS & phosphate-free detergent, then double rinsed with clean water before the sample collection.
Sample identification, preservation transport and holding times	Each sample was labelled with the sample location, date, project identification number and sampler's initials. Samples were collected directly into appropriately preserved laboratory supplied bottles (Teflon-free) and packed in chilled containers for delivery to the laboratory under Chain of Custody (COC) documentation.

Activity	Details
	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 and AS 4482.1 as appropriate).
Laboratory Testing	All groundwater samples were analysed for the full PFAS analytical suite (see SAQP for full list of analytes). The primary laboratory was ALS Global Laboratories (Springvale), and the secondary laboratory (quality control) was Eurofins (Dandenong South). Both laboratories are NATA-accredited for the parameters tested. Copies of the NATA stamped laboratory reports and COC documentation are included in Appendix C.
Laboratory Testing – Quality Control	Groundwater quality control samples were collected as set out in the SAQP and analysed for the full PFAS analytical suite. - Field duplicate (intra-laboratory) samples at one per 10 water samples (five samples). - Field triplicate (inter-laboratory) samples at one per 10 water samples (five samples). - Rinsate blank samples at one per day [collected off re-used sampling equipment (e.g. interface probe)] (five samples total). - Trip blank samples of one per shipment included in the chilled sample containers upon transport to the laboratory (three samples total).

3.2 Surface Water Sampling Methodology

The surface water monitoring methods and activities are summarised in Table 3-2

Table 3-2 Surface Water Sampling Method

Item	Details
Dates of Field Activity	6 to 10 May 2024
Water Levels	Water depths were measured where accessible and referenced against the survey reference marks.
Flow measurement	Qualitative flow was measured at surface water monitoring locations where accessible and where flow was occurring using the float method (except at Hanns Inlet locations and biobasin outlet locations – SW001 to SW008, SW071 to SW078 and SW090).
Field parameters	Surface water quality parameter field measurements (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 colour, presence of suspended solids, flow, turbidity, and the presence of odours, sheen, oily film, nuisance organisms, floating debris or frothing were also recorded on field sampling sheets, if relevant.
Sampling Method	Where possible, the samples were collected directly into sample containers. Where depth permits, the sample bottles were positioned at least 10 cm below the surface water level and above the sediment bed and orientated with the opening facing downwards to avoid the collection of surface films. Where access to surface water was difficult, the samples were collected by attaching the sample bottles to a long-handled sampling device (telescopic pole) which was directly filled by lowering the sample bottle into the surface water body. The sample bottle was attached so that the telescopic pole was not in direct contact with the opening of the sample bottle. 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' and in accordance with Industrial Waste Resources Guidelines (IWRG), <i>Sampling and Analysis of Waters, Wastewaters, Soils and Wastes</i> , Publication 701.
Decontamination	All re-usable sampling equipment (e.g., telescopic pole) were thoroughly washed using phosphate-free detergent (Liquinox), and subsequently double rinsed with clean water before the sample collection.
Sample identification, preservation, transport and holding times.	Each sample was labelled with the sample location, date, project identification number and sampler's initials. Sample labelling and naming was in accordance with Annex L of the DCMM (Defence, 2021).

Item	Details
	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 and AS 4482.1 as appropriate).
Laboratory Testing	All surface water samples were analysed for the full PFAS analytical suite (see SAQP for full list of analytes). The primary laboratory was ALS Global Laboratories (Springvale), and the secondary laboratory (quality control) was Eurofins (Dandenong South). Both laboratories are NATA-accredited for the parameters tested. Copies of the NATA stamped laboratory reports and COC documentation are included in Appendix C.
Laboratory Testing – Quality Control	Surface water quality control samples were collected as set out in the SAQP and analysed for the full PFAS analytical suite. - Field duplicate (intra-laboratory) samples at one per 10 water samples (three samples). - Field triplicate (inter-laboratory) samples at one per 10 water samples (three samples). - Rinsate blank samples at one per day [collected off re-used sampling equipment (e.g. telescopic pole)] (five samples total). - Trip blank samples of one per shipment included in the chilled sample containers upon transport to the laboratory (three samples total).

3.3 Quality Control / Quality Assurance

A critical aspect of site assessments is the demonstration of the quality of the data used as the basis for the assessment. This is achieved through a Data Validation process which includes a review of the following data quality indicators, as described in the SAQP:

- > QA documentation.
- > Bias.
- > Data Representativeness.
- > Data Precision & Accuracy.
- > Laboratory Performance.
- > Data Comparability.
- > Data Set Completeness.

A detailed review of these aspects has been undertaken, the results of which are presented in Appendix E. A summary of the data validation from the QA/QC review is included in Section 4.5.

3.4 Assessment Criteria

3.4.1 Groundwater

The adopted assessment criteria for groundwater are detailed in Table 3-3

Table 3-3 Criteria for Groundwater

Exposure Scenario	Adopted Assessment Criteria		Guidance
	PFHxS + PFOS	PFOA	
	µg/L		
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	HEPA 2020
Ecological	0.00023 ³	19	HEPA 2020

1. Drinking Water screening guidelines have been adopted for screening purposes for Industrial Water use, Stock Water use and Agriculture/Parks/Gardens Water use.
2. Where the guideline value refers to the sum of PFOS and PFHxS, this includes PFOS only, PFHxS only, and the sum of the two.
3. PFOS only; The criterion of 0.00023 µg/L is lower than the laboratory limit of reporting (LOR), however, the PFAS NEMP 2020 allows for the adoption of the laboratory LOR (0.01 µg/L) as a detect threshold rather than a quantified measurement.

3.4.2 Surface Water

The adopted assessment criteria for surface water are detailed in Table 3-4

Table 3-4 Criteria for Surface Water

Exposure Scenario	Adopted Assessment Criteria		Guidance
	PFHxS + PFOS	PFOA	
	µg/L		
Human Health - Surface Water Recreational	2 ²	10	HEPA 2020
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	HEPA 2020
Ecological	0.00023 ³	19	HEPA 2020
1. Drinking Water screening guidelines have been adopted for screening purposes for Industrial Water use, Stock Water use and Agriculture/Parks/Gardens Water use. 2. Where the guideline value refers to the sum of PFOS and PFHxS, this includes PFOS only, PFHxS only, and the sum of the two. 3. PFOS only; The criterion of 0.00023 µg/L is lower than the laboratory level of reporting (LOR), however, the PFAS NEMP 2020 allows for the adoption of the laboratory LOR (0.01 µg/L) as a detect threshold rather than a quantified measurement			

3.5 Deviations from the OMP SAQP

Deviations from the SAQP are summarised in Table 3-5 below. A summary of the event is as follows:

- > Sampling was undertaken at 48 groundwater monitoring wells. An additional 19 wells were gauged only.
- > 30 surface water locations were sampled.
- > Two groundwater monitoring wells could not be sampled, the reasons of which are discussed below.
- > Four surface water locations could not be sampled, the reasons of which are discussed below.

Table 3-5 Deviations from the SAQP

Location	Deviation	Comment/Justification	Impact on Existing Dataset
Groundwater			
MW047	Not sampled	Construction activities obstructing access to well.	Low impact – well was sampled in December 2023 and in all previous events. Results have been consistent across all prior monitoring events.
MW070	Not sampled	Location dry	Low Impact – well has generally been found to be dry during the May sampling event as it was also dry in May 2023. Well was last sampled during December 2023, and results have been consistent across all prior monitoring events..
Surface Water			
SW002	Not sampled	Location dry	Monitoring over the past two events indicates this location is generally dry, except in response to rainfall events. Therefore this is considered to have a low impact on the dataset. Location was last sampled during the event in May 2023. Results have historically fluctuated at this location but were just above the LOR in the May 2023 event.

Location	Deviation	Comment/Justification	Impact on Existing Dataset
SW004	Not sampled	Location dry	Low impact – Location was sampled in December 2023. Results have historically fluctuated but were above adopted criteria during the December 2023 event.
SW006	Not sampled	Outlet pipe was clogged full of sand and unable to be sampled.	Low impact – Location was last sampled during the event in May 2023. Results have historically fluctuated at this location but were <LOR in the May 2023.
SW021	Not sampled	Location dry	Low impact – Location was sampled in December 2023. Results have historically fluctuated but were above criteria during the December 2023 event.

4 Field Observations and Results

4.1 Conditions Impacting the Sampling Event

In the seven days prior to the sampling event, 1.0 mm of rain was recorded. During the E10 sampling event, 12.4 mm of rain was recorded at the nearest weather station (086361), located in the north-west portion of the Site. In the month of April 2024, the total amount of rainfall recorded was 98.4 mm, which was higher than the monthly average rainfall in April between 2019 and 2023 of 75.6 mm¹. However, this is predominantly related to a large rain event of 54 mm on the 2 April.

4.2 Groundwater

4.2.1 Summary of Field Observations

4.2.1.1 Water Quality Parameter Field Measurements

Stabilised groundwater water quality parameter field measurements, water colour and turbidity observations recorded during the groundwater sampling program are presented in field sampling record sheets, included in Appendix D. Groundwater colour varied from clear to cloudy to brown with rare cases of greenish black and black and was noted to have generally low to high turbidity. Water quality parameter field measurements were generally consistent with the previous monitoring events.

4.2.1.2 Groundwater Elevation and Migration

Groundwater elevations were observed to be generally consistent with the previous event (December 2023). Groundwater contours indicate groundwater flows south-east towards South Creek and Hanns Inlet, consistent with previous investigations. Groundwater elevation contours and flow directions for May 2024 are shown in Figure 2, Appendix A. Gauging records are presented in Appendix D.

4.2.2 Groundwater Laboratory Results

The results of laboratory analysis have been compared against adopted assessment criteria, and are presented in Table B1, Appendix B, and summarised in Table 4-1. Of the 48 samples that were analysed, PFOS was reported above adopted criteria in 27 samples, PFOA in 5 samples, and PFOS+PFHxS in 25 samples. The laboratory reports are provided in Appendix C.

¹ Climate statistics for Australian locations – summary statistics Cerberus
http://www.bom.gov.au/climate/averages/tables/cw_086361.shtml, last accessed May 2024.

Table 4-1 Summary of Groundwater Results Exceeding Adopted Criteria

Analytes	Locations Exceeding Criteria	Lowest Criteria (µg/L)	Max Conc. (µg/L) ⁴	No. Analytical Results >LOR	No. Results Above Criteria	Significant Concentration Changes ³
PFOS	MW017, MW019, MW025, MW028, MW030, MW041, MW043, MW046, MW051, MW061, MW062, MW064, MW067, MW068, MW071, MW075, MW102, MW109, MW110, MW121, MW122S, MW212, MW213, MW214D, MW215D, MW215S, MW217D	0.00023 ²	44.7	27	27	-
PFOA	MW067, MW121, MW212, MW213, MW215S	0.56 ¹	2.63	20	5	MW121 (increase)
PFOS+PFHxS	MW017, MW018, MW019, MW025, MW028, MW041, MW051, MW054, MW061, MW062, MW064, MW067, MW068, MW071, MW074, MW075, MW102, MW110, MW121, MW122S, MW212, MW213, MW214D, MW215D, MW215S	0.07 ¹	108	35	25	MW019 (increase)
Note: 1. Drinking water assessment criteria. 2. Ecological assessment criteria. 3. Significant change defined as an order of magnitude (10 times) increase or decrease from the previous monitoring round. 4. Historical and current concentrations presented in Appendix B.						

Results have also been compared to available historical data. Two locations reported an order of magnitude change in concentration for this monitoring event.

- > MW019: PFOS+PFHxS concentrations have increased by one order of magnitude from the previous event in December 2023.
- > MW121: PFOA concentrations have increased by one order of magnitude from the previous event in December 2023.

Findings are summarised as follows:

- > No groundwater sampling locations reported a first-time detection or new exceedance of the lowest adopted criteria during this event.
- > All other concentrations reported during this event were generally consistent with previous sampling events.

4.3 Surface Water

4.3.1 Summary of Field Observations

4.3.1.1 Water Quality Parameter Field Measurements

Stabilised surface water quality parameter field measurements, water colour and turbidity observations recorded during the surface water sampling program are presented in field sampling record sheets, included in Appendix D. Surface water colour varied from clear to cloudy or brown and was generally observed to have low to medium turbidity, consistent with previous sampling. All water quality parameter field measurements were generally consistent with the previous monitoring events.

4.3.1.2 Surface Water Flow

Surface water flow was measured at 30 locations and flow ranged from no flow to medium flow. Flow measurements were generally consistent with previous monitoring rounds as summarised in Table D1, Appendix D.

4.3.2 Surface Water Laboratory Results

The results of laboratory analysis have been compared against adopted assessment criteria, presented in Table B2, Appendix B, and summarised in Table 4-2 below. Of the 30 samples that were tested, PFOS was reported above adopted criteria in 19 samples, PFOA in 4 samples, and PFOS+PFHxS in 14 samples. The laboratory reports are provided in Appendix C.

Table 4-2 Summary of Surface Water Results Exceeding Adopted Criteria

Analytes	Locations Exceeding Criteria	Lowest Criteria (µg/L)	Max Conc. (µg/L) ⁴	No. Analytical Results >LOR	No. Results Above Criteria ^{1,2}	Significant Concentration Changes ³
PFOS	SW005, SW010, SW014, SW015, SW016, SW017, SW019, SW027, SW028, SW029, SW030, SW057, SW072, SW073, SW074, SW075, SW077, SW078, SW090	0.00023 ²	3.72	19	19	SW028 (decrease)
PFOA	SW014, SW015, SW016, SW057	0.56 ¹	1.06	8	4	-
PFOS+PFHxS	SW005, SW010, SW014, SW015, SW016, SW017, SW027, SW029, SW030, SW057, SW072, SW073, SW074, SW090	0.07 ¹	6.70	19	14	SW018, SW028 (decrease)
Note: 1. Drinking water assessment criteria. 2. Ecological assessment criteria 3. Significant change defined as an order of magnitude increase or decrease from the previous monitoring round. 4. Historical and current concentrations presented in Appendix B.						

Results have also been compared to available historical data. The following two locations reported a significant change in concentration for this monitoring event:

- SW018 and SW028: PFOS+PFHxS concentrations have decreased by one order of magnitude from the previous event in December 2023.
- SW028: PFOS concentrations have decreased by one order of magnitude from the previous event in December 2023.

A summary of locations where a first-time detection, or a new exceedance of guideline values were reported is provided in Table 4-3 below. The laboratory reports are provided in Appendix C.

Table 4-3 Summary of first-time detects and new exceedances in Surface Water

Deviation Type	Location	PFOS+PFHxS concentration (µg/L)		PFOA concentration (µg/L)		PFOS concentration (µg/L)	
		May 2024	Previous Maximum	May 2024	Previous Maximum	May 2024	Previous Maximum
New Exceedance of lowest adopted guideline value	SW090	0.16	-	<0.01	-	0.08	-
First-time detections	SW090	0.16	-	<0.01	-	0.08	-

Note:

- Location with first-time detection of PFOS+PFHxS, PFOA or PFOS in latest monitoring round
- Location with a new exceedance of lowest adopted guideline values in latest monitoring round
- Bold:** Exceedance of lowest adopted guideline values

Findings are summarised as follows:

- > Surface water location SW090 reported a first-time detection of PFOS and PFOS+PFHxS. SW090 also reported a new exceedance of the lowest adopted criteria for PFOS and PFOS+PFHxS. SW090 was sampled for the first time as part of this event.
- > All other concentrations reported during this event were generally consistent with previous sampling events.

4.4 Changes to the Monitoring Network Condition

- > New surface water location SW090 (outlet pipe discharging into Hanns Inlet) to be sampled to monitor outflow from bioretention basin 5 as agreed with Defence (Cardno, 2024). As the water level in bioretention basin 5 was significantly below the discharge level to generate an outflow during sampling event E10, the water sample was collected from stagnant water within the bioretention basin.

4.5 Data Validation

The data validation process has concluded that there are no significant systematic errors in the data collection process. Therefore, the data set used as the basis for the surface water and groundwater assessment is considered valid and complete. A detailed Data Quality Review is included in Appendix E.

5 Summary and Conclusions

Cardno conducted the May 2024 biannual groundwater and surface water monitoring event at HMAS Cerberus as part of the PFAS OMP. Groundwater and surface water sampling and testing were undertaken at 48 groundwater monitoring locations and 30 surface water locations.

Groundwater levels were gauged at all wells before sampling, to the extent practicable. Selected locations were unable to be gauged and/or sampled for various reasons, as detailed below in Table 5-1. Regional groundwater flow was interpreted to be in a south-easterly direction towards Hanns Inlet, consistent with previous monitoring events.

Table 5-1 Summary of Results

Activity	Details
Deviations from OMP SAQP	> Two groundwater wells were not sampled as the locations were dry and/or not accessible due ongoing construction work at the Site. > Four surface water locations were not sampled as the locations were dry and/or unable to sample due to pipes being blocked..
Groundwater Analytical Results	> 48 groundwater samples were collected in total. > One groundwater sampling location reported increase by one order of magnitude for PFOS+PFHxS concentrations from the previous event in December 2023. > One groundwater sampling location reported increase by one order of magnitude for PFOA concentrations from the previous event in December 2023. > All other concentrations reported during this event were generally consistent with previous monitoring events.
Surface Water Analytical Results	> 30 surface water samples were collected in total.

	> Two surface water sampling location reported decrease by one order of magnitude for PFOS+PFHxS concentrations from the previous event in December 2023. > One surface water sampling location reported decrease by one order of magnitude for PFOS concentrations from the previous event in December 2023. > Surface water location SW090 reported a first-time detection of PFOS and PFOS+PFHxS. > Surface water location SW090 reported a new exceedance of the lowest adopted criteria for PFOS and PFOS+PFHxS. > All other concentrations reported during this event were generally consistent with previous monitoring events.
Next Scheduled Monitoring Event	> The next OMP monitoring event is scheduled for November 2024. > SAQP to be reviewed and updated as required prior to the next monitoring event.

6 References

General References

1. Australian and New Zealand Guidelines, 2018, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* ANZG, 2018.
2. Department of Defence, 2021, *Contamination Management Manual (DCMM), Annex L – Data Management*, August 2019, Amended June 2021.
3. Defence, 2021a, *Defence OMP Factual Report Guidance, Version 0.2*, Revised May 2021.
4. The Heads of EPAs Australia and New Zealand (HEPA), 2020, *PFAS National Environmental Management Plan (NEMP) Version 2.0*, January 2020.
5. National Environment Protection Council (NEPC), 2013, *National Environmental Protection (Assessment of Site Contamination) Measure (as amended)*, registered May 2013.
6. National Health and Medical Research Council, 2011, *National Water Quality Management Strategy Australian Drinking Water Guidelines 6*, Amended August 2018.
7. National Health and Medical Research Council (NHMRC), 2019, *Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water*, August 2019.
8. Standards Australia/Standards New Zealand, 1998, AS5667.1:1998 'Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples'.
9. Standards Australia, 1999, AS4482.2-1999 *Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 – Non-volatile and semi-volatile compounds* (withdrawn as pending revision, referred to for 'state of knowledge').
10. U.S. Environmental Protection Agency (USEPA), 2006, 'Guidance for the Data Quality Objectives Process (EPA QA/G-4)'.
11. USEPA, 2002, Reference: EPA/240/R-02/004, 'Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)', November 2022.

Site Specific References

12. Cardno, 2024, *PFAS Ongoing Monitoring Plan Sampling and Analysis Quality Plan (SAQP), HMAS Cerberus, Rev 10*, 31 May 2024.

APPENDIX

A

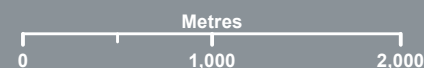
FIGURES



Legend

- Site Area
- Management Area / Investigation Area
- Ramsar Wetland Boundary

FIGURE 1
1:40,000 Scale at A3



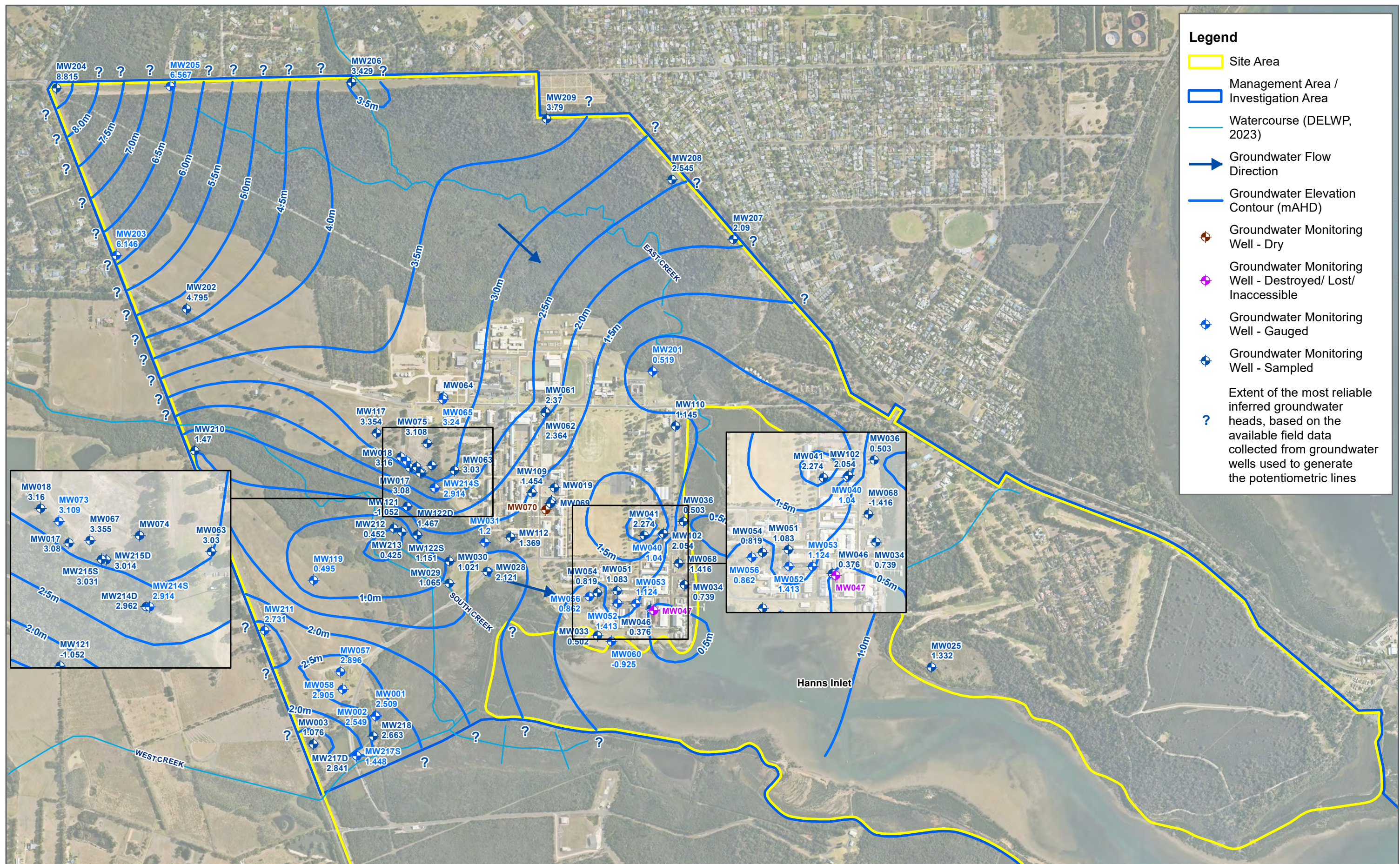
Site Locality Plan

ANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



Cardno now **Stantec**

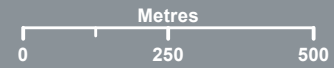
Map Produced by Cardno now Stantec
Date: 2024-06-06 | Project: DEF19008
Coordinate System: GDA 1994 MGA Zone 55
Map: DEF19008-GS-001-SiteLocalityPlan_Cerberus.mxd 04
Aerial Imagery Supplied by Metromap (February, 2024)



Legend

- Site Area
- Management Area / Investigation Area
- Watercourse (DELWP, 2023)
- Groundwater Flow Direction
- Groundwater Elevation Contour (mAHD)
- Groundwater Monitoring Well - Dry
- Groundwater Monitoring Well - Destroyed/ Lost/ Inaccessible
- Groundwater Monitoring Well - Gauged
- Groundwater Monitoring Well - Sampled
- Extent of the most reliable inferred groundwater heads, based on the available field data collected from groundwater wells used to generate the potentiometric lines

FIGURE 2
1:13,000 Scale at A3



Groundwater Elevation Contours – Regional Aquifer (May, 2024)

ANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE

Map Produced by Cardno now Stantec
 Date: 2024-06-12 | Project: DEF19008
 Coordinate System: GDA 1994 MGA Zone 55
 Map: DEF19008-GS-0467-GWContoursRA_Cerberus_E10.mxd 01
 Aerial Imagery Supplied by Metromap (February, 2024)



Legend

Site/ Investigation Area

Watercourse (DELWP, 2023)

Groundwater Monitoring Well

- Dry
- ▲ Gauged Only
- Inaccessible/ Not found/ Not sampled/ Not gauged
- Gauged and Sampled, 'No First-time Detection or New Exceedance of Assessment Criteria'; First-time Date

FIGURE 3
1:13,000 Scale at A3

Metres

0 250 500

Groundwater Concentration Notification (May, 2024)

ANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



FIGURE 4
1:13,000 Scale at A3

Metres
0 250 500

Surface Water Concentration Notification (May, 2024)

ANNUAL SAMPLING EVENT
HMAS CERBERUS, VIC, 3920
DEPARTMENT OF DEFENCE



APPENDIX

B

DATA ASSESSMENT TABLES

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																		
MW003	29 Mar 2018	MW003_HS_180329	Normal	591914	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	<0.001
	15 Nov 2019	0066_MW003_191115	Normal	EM1919512	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_MW003_200519	Normal	EM2008583	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW003_201125	Normal	EM2021043	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW003_210630	Normal	EM2112638	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW003_211130	Normal	EM2124215	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW003_220503	Normal	EM2208151	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW003_221116	Normal	EM2223006	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW003_230525	Normal	EM2309599	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW003_231206	Normal	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	09 May 2024	0066_MW003_240509	Normal	EM2407537	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
MW017	09 May 2016	0066_GW08-VT0067_201605	Normal		7.88	0.202	19.18		3.59		11.3		<0.005	<0.1	<0.02	1.98		0.071	0.002	<0.002	<0.005	<0.005
	31 May 2016	0066-VT0067 GW08	Normal				2.95															
				502716	0.05	0.27			1.2		2.9		<0.01	0.14	0.33	1.7		0.24	<0.01	<0.01	<0.01	<0.01
	05 Apr 2017	0066_GW08-VT0067_201704	Normal		4.29	0.42	23.9		1.94		19.6		<0.005	<0.1	0.4	1.77		0.32	<0.002	<0.002	<0.005	<0.005
	20 Oct 2017	GW08-VT0067_201017	Normal	568935	1.5	0.35	9.6		2.7	1.6	8.1	<0.2	<0.2	0.83	1.3	2.8		<0.01	<0.2	<0.2	<0.2	<0.2
	06 Dec 2017	GW08-VT0067_061217	Normal	577093	4.5	0.6	25.5		1.9	2	21	0.32	<0.001	0.42	0.56	2.8		0.56	0.008	0.002	0.003	0.003
	04 Apr 2018	GW08-VT0067_HS_180404	Normal	592478	3.3	0.31	16.3		1.7	1.8	13	0.3	<0.01	0.27	0.47	2.1		0.33	<0.01	<0.01	<0.01	<0.01
	19 Nov 2019	0066_GW08-VT0067_191119	Normal	EM1919718	1.08	0.32	23.6		1.95	2.66	22.5	0.30	<0.02	0.3	0.62	2.55		0.46	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW017_200520	Normal	EM2008583	1.02	0.40	42.0		2.27	4.65	41.0	0.50	<0.02	0.4	0.80	3.19		0.73	<0.02	<0.02	<0.02	<0.02
		0066_QC101_200520	Field_D	EM2008583	1.04	0.39	25.0		2.30	4.32	24.0	0.46	<0.02	0.4	0.78	3.32		0.76	<0.02	<0.02	<0.02	<0.02
		0066_QC201_200520	Interlab_D	721332	0.85	0.32	17.85	<0.01	1.6	2.3	17	0.70	<0.01	0.31	0.48	2.1	0.51	0.49	<0.01	<0.01	<0.01	<0.01
	25 Nov 2020	0066_MW017_201125	Normal	EM2021043	3.53	0.12	8.92		0.31	0.31	5.39	0.15	<0.02	<0.1	0.14	0.36		0.08	<0.02	<0.02	<0.02	<0.02
		0066_QC101_201125	Field_D	EM2021043	3.28	0.12	8.71		0.31	0.30	5.43	0.13	<0.02	<0.1	0.13	0.41		0.08	<0.02	<0.02	<0.02	<0.02
		0066_QC201_201125	Interlab_D	760007	2.3	0.16	7.3	0.01	0.36	0.55	5.0	0.17	<0.01	0.11	0.18	0.49	0.11	0.10	<0.01	<0.01	<0.01	<0.01
	30 Jun 2021	0066_MW017_210630	Normal	EM2112638	3.06	0.30	19.9		0.77	0.56	16.8	0.23	<0.02	0.3	0.41	0.96		0.24	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW017_211130	Normal	EM2124215	1.14	0.45	14.8		0.91	1.34	13.7	0.46	<0.02	0.3	0.39	1.05		0.23	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW017_220503	Normal	EM2208151	3.86	0.25	13.9		0.73	1.15	10.0	0.35	<0.02	0.3	0.46	1.06		0.20	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW017_221116	Normal	EM2223006	2.90	0.11	6.88		0.20	0.23	3.98	0.12	<0.02	<0.1	0.08	0.23		0.06	<0.02	<0.02	<0.02	<0.02
24 May 2023	0066_MW017_230524	Normal	EM2309599	1.69	0.41	13.5		0.61	0.61	11.8	0.22	<0.02	0.2	0.25	0.89		0.15	<0.02	<0.02	<0.02	<0.02	
06 Dec 2023	0066_MW017_231206	Normal	EM2321752	1.89	0.44	13.2		0.44	0.73	11.3	0.36	<0.02	0.1	0.22	0.62		0.14	<0.02	<0.02	<0.02	<0.02	
08 May 2024	0066_MW017_240508	Normal	EM2407537	2.20	0.29	8.24		0.25	0.28	6.04	0.17	<0.02	<0.1	0.15	0.44		0.08	<0.02	<0.02	<0.02	<0.02	
MW018	09 May 2016	0066_GW09-VT0067_201605	Normal		<0.002	<0.002	0.022		0.004		0.022		<0.005	<0.1	<0.02	<0.002		<0.002	<0.002	<0.002	<0.005	<0.005
	31 May 2016	0066-VT0067 GW09	Normal				0.05															
				502716	0.04	<0.01			<0.01		0.01		<0.01	<0.05	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
		0066-VT0067 QC102	Field_D	502716	<0.01	<0.01			<0.01		0.02		<0.01	<0.05	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	06 Dec 2017	GW09-VT0067_061217	Normal	577093	0.003	<0.001	0.033		0.008	0.006	0.03	<0.001	<0.001	<0.005	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
		QC102_061217	Field_D	577093	0.006	<0.001	0.038		0.008	0.006	0.032	<0.001	<0.001	<0.005	<0.001	0.001		<0.001	<0.001	<0.001	<0.001	<0.001
	04 Apr 2018	GW09-VT0067_HS_180404	Normal	592478	0.002	<0.001	0.029		0.009	0.006	0.027	<0.001	<0.001	<0.005	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
	21 May 2020	0066_MW018_200521	Normal	EM2008583	0.02	<0.01	0.09		<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW018_201125	Normal	EM2021043	0.01	<0.01	0.05		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW018_210630	Normal	EM2112638	0.02	<0.01	0.09		0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW018_211130	Normal	EM2124215	0.02	<0.01	0.08		<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	04 May 2022	0066_MW018_220504	Normal	EM2208151	0.05	<0.01	0.16		<0.02	<0.02	0.11	<0.02	<0.02	<0.1								

[illegible]

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																	
MW034	24 May 2023	0066_MW033_230524	Normal	EM2309599	<0.01	<0.01	0.02		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW033_231204	Normal	EM2321752	0.01	<0.01	0.03		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	09 May 2024	0066_MW033_240509	Normal	EM2407537	<0.01	<0.01	0.02		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	19 May 2016	0066_GW01-VT0367_201605	Normal		<0.002	<0.002	0.003		<0.002		0.003		<0.005	<0.1	<0.02	<0.002		<0.002	<0.002	<0.005	<0.005
	04 Dec 2017	GW01-VT0367_041217	Normal	576131	0.0016	<0.001	0.0256		0.003	0.002	0.024	<0.001	<0.001	<0.005	<0.001	0.002		<0.001	<0.001	<0.001	<0.001
	14 Nov 2019	0066_GW01-VT0367_191114	Normal	EM1919512	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05
	19 May 2020	0066_MW034_200519	Normal	EM2008583	<0.01	<0.01	0.04		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW034_201125	Normal	EM2021043	<0.01	<0.01	0.02		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW034_210629	Normal	EM2112638	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW034_211130	Normal	EM2124215	<0.01	<0.01	0.02		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW034_220503	Normal	EM2208151	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW034_221115	Normal	EM2223006	<0.01	<0.01	0.01		<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW034_230525	Normal	EM2309599	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW034_231204	Normal	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
MW036	09 May 2024	0066_MW034_240509	Normal	EM2407537	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	10 May 2016	0066_GW03-VT0367_201605	Normal		<0.002	<0.002	0.015		0.006		0.015		<0.005	<0.1	<0.02	<0.002		<0.002	<0.002	<0.005	<0.005
	04 Dec 2017	GW03-VT0367_041217	Normal	576131	0.0043	0.004	0.0753		0.014	0.016	0.071	<0.001	<0.001	<0.005	0.002	0.01		0.002	<0.001	<0.001	<0.001
	28 Mar 2018	GW03-VT0367_HS_180328	Normal	591827	0.005	0.003	0.044		0.014	0.015	0.039	<0.001	<0.001	<0.005	0.003	0.01		0.002	<0.001	<0.001	<0.001
	20 Nov 2019	0066_GW03-VT0367_191120	Normal	EM1919885	<0.05	0.06	0.08		<0.05	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05
	19 May 2020	0066_MW036_200519	Normal	EM2008583	<0.01	<0.01	0.08		0.02	0.04	0.08	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW036_201125	Normal	EM2021043	<0.01	<0.01	0.07		<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW036_210629	Normal	EM2112638	<0.01	<0.01	0.06		<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW036_211130	Normal	EM2124215	<0.01	<0.01	0.07		<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW036_220503	Normal	EM2208151	<0.01	<0.01	0.06		<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW036_221115	Normal	EM2223006	<0.01	<0.01	0.05		<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW036_230525	Normal	EM2309599	<0.01	<0.01	0.06		<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW036_231204	Normal	EM2321752	<0.01	<0.01	0.04		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	09 May 2024	0066_MW036_240509	Normal	EM2407537	<0.01	<0.01	0.05		<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
MW041	09 May 2016	0066_GW02-VT0369_201605	Normal		0.016	0.002	0.248		0.019		0.232		<0.005	<0.1	<0.02	0.016		0.003	<0.002	<0.002	<0.005
	04 Dec 2017	GW02-VT0369_041217	Normal	576131	0.022	0.01	0.422		0.019	0.043	0.4	0.005	<0.001	0.018	0.018	0.046		0.009	<0.001	<0.001	<0.001
	28 Mar 2018	GW02-VT0369_HS_180328	Normal	591827	0.025	0.009	0.285		0.021	0.034	0.26	<0.001	<0.001	0.016	0.015	0.041		0.008	<0.001	<0.001	<0.001
	14 Nov 2019	0066_GW02-VT0369_191114	Normal	EM1919512	0.03	<0.01	0.34		<0.02	0.03	0.31	<0.02	<0.02	<0.1	0.02	0.05		<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_MW041_200519	Normal	EM2008583	0.04	0.02	0.42		<0.02	0.05	0.38	<0.02	<0.02	<0.1	<0.02	0.06		<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_MW041_201126	Normal	EM2021043	0.02	<0.01	0.24		<0.02	<0.02	0.22	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW041_210629	Normal	EM2112638	<0.01	<0.01	0.22		<0.02	<0.02	0.22	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW041_211201	Normal	EM2124215	0.02	<0.01	0.21		<0.02	0.02	0.19	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
	05 May 2022	0066_MW041_220505	Normal	EM2208151	0.02	<0.01	0.23		<0.02	<0.02	0.21	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW041_221117	Normal	EM2223006	0.02	0.01	0.28		<0.02	0.03	0.26	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW041_230525	Normal	EM2309599	0.02	0.01	0.33		<0.02	0.02	0.31	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW041_231204	Normal	EM2321752	0.02	0.01	0.32		<0.02	0.03	0.30	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
		0066_QC103_231204	Field_D	EM2321752	0.02	0.01	0.38		<0.02	0.04	0.36	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
		0066_QC203_231204	Interlab_D	1051767	0.03	0.01	0.29		0.01	0.03	0.26	<0.01	<0.01	<0.05	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
	09 May 2024	0066_MW041_240509	Normal	EM2407537	0.03	<0.01	0.35		<0.02	0.02	0.32	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
MW043	30 May 2016	0066-VT0370 GW01	Normal				<0.01														
				502716	<0.01	<0.01			<0.01		<0.01		<0.01		<0.01			<0.01	<0.01	<0.01	<0.01
	01 Dec 2017	GW01-VT0370_011217	Normal	575567	0.002	0.001	0.007		<0.001	<0.001	0.005	<0.001	<0.001	<0.005	0.001	0.002		<0.001	<0.001	<0.001	<0.001
	20 Nov 2019	0066_GW01-VT0370_191120	Normal	EM1919885	<0.01	0.03	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW043_200520	Normal	EM2008583	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_MW043_201126	Normal	EM2021043	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<

			Perfluorocarbons																	
			Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
LOR			µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
PFAS NEMP 2.0 Table 1 Health Drinking Water			0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 5 Freshwater 99%			0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																			
	01 Dec 2021	0066_MW046_211201	Normal	EM2124215		0.04	0.01	0.07		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC108_211201	Field_D	EM2124215		0.04	0.01	0.07		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC208_211201	Interlab_D	849156		0.04	0.01	0.07	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	0.03	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
	03 May 2022	0066_MW046_220503	Normal	EM2208151		0.04	0.01	0.08		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	15 Nov 2022	0066_QC206_221115	Interlab_D	943130		0.06	0.01	0.09	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	17 Nov 2022	0066_MW046_221117	Normal	EM2223006		0.06	0.01	0.09		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC106_221117	Field_D	EM2223006		0.06	0.01	0.09		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_MW046_230524	Normal	EM2309599		0.04	0.01	0.07		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW046_231204	Normal	EM2321752		0.04	<0.01	0.07		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	09 May 2024	0066_MW046_240509	Normal	EM2407537		0.03	<0.01	0.06		<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
MW047	04 Dec 2017	GW02-VT0371_041217	Normal	576131		0.12	0.023	0.46		0.036	0.036	0.34	0.008	<0.001	0.013	0.017	0.046		0.01	<0.001	<0.001	<0.001	<0.001
	28 Mar 2018	GW02-VT0371_HS_180328	Normal	591827		0.12	0.024	0.28		0.03	0.028	0.16	0.005	<0.001	0.012	0.014	0.038		0.009	<0.001	<0.001	<0.001	<0.001
	14 Nov 2019	0066_GW02-VT0371_191114	Normal	EM1919512		0.09	0.02	0.26		0.04	0.02	0.17	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW047_200520	Normal	EM2008583		0.13	0.03	0.30		0.04	0.02	0.17	<0.02	<0.02	<0.1	<0.02	0.05		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW047_201125	Normal	EM2021043		0.10	0.02	0.23		0.03	<0.02	0.13	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW047_210630	Normal	EM2113696		0.06	0.02	0.17		0.04	<0.02	0.11	<0.02	<0.02	<0.1	0.02	0.03		<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW047_211201	Normal	EM2124215		0.09	0.02	0.21		0.03	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW047_220503	Normal	EM2208151		0.14	0.02	0.29		<0.02	0.02	0.15	<0.02	<0.02	<0.1	0.02	0.05		<0.02	<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW047_221117	Normal	EM2223006		0.08	0.02	0.17		0.03	<0.02	0.09	<0.02	<0.02	<0.1	0.03	0.03		<0.02	<0.02	<0.02	<0.02	<0.02
	29 May 2023	0066_MW047_230529	Normal	EM2309599		0.09	0.02	0.17		0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02	<0.02
04 Dec 2023	0066_MW047_231204	Normal	EM2321752		0.10	0.02	0.20		<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02	<0.02	
MW051	10 May 2016	0066_GW01-VT0372_201605	Normal			0.152	0.005	0.213		0.005		0.061		<0.005	<0.1	<0.02	0.007		<0.002	<0.002	<0.002	<0.005	<0.005
	06 Dec 2017	GW01-VT0372_061217	Normal	577093		0.23	0.012	0.287		0.008	0.01	0.057	0.005	<0.001	0.007	0.005	0.016		0.004	<0.001	<0.001	<0.001	<0.001
	28 Mar 2018	GW01-VT0372_HS_180328	Normal	591827		0.21	0.01	0.265		0.006	0.007	0.055	0.003	<0.001	0.007	0.005	0.013		0.004	<0.001	<0.001	<0.001	<0.001
	26 Nov 2020	0066_MW051_201126	Normal	EM2021043		0.58	0.08	1.11		0.04	0.04	0.53	0.02	<0.02	<0.1	<0.02	0.07		0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC104_201126	Field_D	EM2021043		0.48	0.08	0.94		0.04	0.04	0.46	0.02	<0.02	<0.1	0.02	0.08		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC204_201126	Interlab_D	760007		0.58	0.09	1.07	<0.01	0.04	0.05	0.49	0.02	<0.01	<0.05	0.02	0.09	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
	30 Jun 2021	0066_MW051_210630	Normal	EM2112638		0.35	0.03	0.60		0.02	0.02	0.25	<0.02	<0.02	<0.1	<0.02	0.05		<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW051_211201	Normal	EM2124215		0.13	0.02	0.24		<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW051_220503	Normal	EM2208151		0.16	0.02	0.34		0.02	0.03	0.18	<0.02	<0.02	<0.1	<0.02	0.05		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC103_220503	Field_D	EM2208151		0.18	0.02	0.34		0.02	0.02	0.16	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02	<0.02
0066_QC203_220503		Interlab_D	886234		0.24	0.02	0.41	<0.01	0.02	0.02	0.17	<0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
16 Nov 2022	0066_MW051_221115	Normal	EM2223006		0.08	<0.01	0.12		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023	0066_MW051_230525	Normal	EM2309599		0.06	<0.01	0.11		<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
04 Dec 2023	0066_MW051_231204	Normal	EM2321752		0.06	<0.01	0.10		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
09 May 2024	0066_MW051_240509	Normal	EM2407537		0.05	<0.01	0.10		<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
MW054	24 May 2016	0066_GW01-VT0373_201605	Normal			<0.002	<0.002	<0.01		<0.002		<0.002		<0.005	<0.1	<0.02	<0.002		<0.002	<0.002	<0.002	<0.005	<0.005
	05 Dec 2017	GW01-VT0373_051217	Normal	576131		<0.0001	<0.001	0.002		<0.001	<0.001	0.002	<0.001	<0.001	<0.005	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
	28 Mar 2018	GW01-VT0373_HS_180328	Normal	591827		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	<0.001
	15 Nov 2019	0066_GW01-VT0373_191115	Normal	EM1919512		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW054_200520	Normal	EM2008583		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW054_201125	Normal	EM2021043		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_MW054_210630	Normal																				

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																	
MW062		0066_QC205_240508	Interlab_D	1096549	0.04	0.01	0.19			<0.01	0.01	0.15	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
	26 Nov 2020	0066_MW062_201126	Normal	EM2021043	0.08	0.05	0.36			0.03	<0.02	0.28	<0.02	<0.02	<0.1	0.06	0.10		0.02	<0.02	<0.02
	30 Jun 2021	0066_MW062_210630	Normal	EM2112638	0.05	0.04	0.38			0.05	<0.02	0.33	<0.02	<0.02	<0.1	0.04	0.08		<0.02	<0.02	<0.02
	02 Dec 2021	0066_MW062_211202	Normal	EM2124215	0.06	0.04	0.35			0.03	0.03	0.29	<0.02	<0.02	<0.1	0.03	0.08		<0.02	<0.02	<0.02
	04 May 2022	0066_MW062_220503	Normal	EM2208151	0.06	0.03	0.40			0.03	0.03	0.34	<0.02	<0.02	<0.1	0.04	0.07		<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW062_221117	Normal	EM2223006	0.07	0.03	0.38			0.03	0.03	0.31	<0.02	<0.02	<0.1	0.04	0.07		<0.02	<0.02	<0.02
	25 May 2023	0066_MW062_230525	Normal	EM2309599	0.05	0.03	0.26			<0.02	0.02	0.21	<0.02	<0.02	<0.1	0.04	0.05		<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW062_231204	Normal	EM2321752	0.05	0.03	0.31			0.02	0.02	0.26	<0.02	<0.02	<0.1	0.02	0.07		<0.02	<0.02	<0.02
		0066_QC102_231204	Field_D	EM2321752	0.07	0.03	0.36			0.03	0.03	0.29	<0.02	<0.02	<0.1	<0.02	0.06		0.02	<0.02	<0.02
		0066_QC202_231204	Interlab_D	1051767	0.05	0.04	0.25			0.02	0.02	0.20	<0.01	<0.01	<0.05	0.03	0.06	0.01	0.01	<0.01	<0.01
08 May 2024	0066_MW062_240508	Normal	EM2407537	0.06	0.03	0.32			<0.02	0.02	0.26	<0.02	<0.02	<0.1	0.03	0.07		<0.02	<0.02	<0.02	
MW063	27 Nov 2020	0066_MW063_201127	Normal	EM2021043	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW063_210628	Normal	EM2112638	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW063_211130	Normal	EM2124215	<0.01	<0.01	0.01			<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	04 May 2022	0066_MW063_220504	Normal	EM2208151	<0.01	<0.01	0.02			<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW063_221115	Normal	EM2223006	<0.01	<0.01	0.02			<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	24 May 2023	0066_MW063_230524	Normal	EM2309599	<0.01	<0.01	0.02			<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW063_231206	Normal	EM2321752	<0.01	<0.01	0.03			<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
	08 May 2024	0066_MW063_240508	Normal	EM2407537	<0.01	<0.01	0.03			<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
		0066_QC104_240508	Field_D	EM2407537	<0.01	<0.01	0.03			<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02
		0066_QC204_240508	Interlab_D	1096549	<0.01	<0.01	0.02			<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW064	26 Nov 2020	0066_MW064_201126	Normal	EM2021043	2.05	0.04	2.59			0.05	0.04	0.54	0.04	<0.02	<0.1	0.04	0.14		<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW064_210630	Normal	EM2112638	1.14	0.03	1.75			0.17	0.06	0.61	0.02	<0.02	<0.1	0.04	0.15		<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW064_211201	Normal	EM2124215	1.34	0.03	1.70			0.37	0.08	0.36	0.02	<0.02	<0.1	0.05	0.16		<0.02	<0.02	<0.02
	04 May 2022	0066_MW064_220504	Normal	EM2208151	1.60	0.03	2.10			0.20	0.12	0.50	0.03	<0.02	<0.1	0.06	0.20		<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW064_221115	Normal	EM2223006	0.88	0.02	0.97			<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02
	26 May 2023	0066_MW064_230526	Normal	EM2309599	1.02	0.02	1.19			0.08	0.11	0.17	<0.02	<0.02	<0.1	0.02	0.12		<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW064_231204	Normal	EM2321752	0.52	0.01	0.67			0.02	0.03	0.15	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02
		0066_QC100_231204	Field_D	EM2321752	0.51	0.01	0.67			0.02	0.03	0.16	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02
		0066_QC200_231204	Interlab_D	1051767	0.52	0.01	0.64			0.02	0.02	0.12	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
	08 May 2024	0066_MW064_240508	Normal	EM2407537	0.56	0.01	0.72			<0.02	<0.02	0.16	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02
MW067	05 May 2022	0066_MW067_220505	Normal	EM2208151	2.58	1.53	41.5			2.79	4.43	38.9	0.76	<0.04	0.9	2.38	12.7		1.16	<0.04	<0.04
	17 Nov 2022	0066_MW067_221117	Normal	EM2223006	3.03	2.26	65.8			2.66	5.94	62.8	0.62	<0.02	0.8	2.50	13.7		1.81	<0.02	<0.02
	24 May 2023	0066_MW067_230524	Normal	EM2309599	7.89	2.37	66.9			2.38	6.28	59.0	1.00	<0.02	1.2	2.54	12.9		1.70	<0.02	<0.02
	06 Dec 2023	0066_MW067_231206	Normal	EM2321752	4.09	2.06	66.6			2.32	5.02	62.5	0.87	<0.02	0.8	2.17	11.6		1.46	<0.02	<0.02
	08 May 2024	0066_MW067_240508	Normal	EM2407537	5.34	2.63	80.8			2.70	5.11	75.5	1.16	<0.02	1.0	2.24	12.2		1.71	<0.02	<0.02
		0066_QC103_240508	Field_D	EM2407537	4.49	2.43	81.9			2.58	5.69	77.4	1.10	<0.02	0.9	2.06	12.1		1.65	<0.02	<0.02
MW068		0066_QC203_240508	Interlab_D	1096549	4.2	2.4	77.2			2.3	4.3	73	0.73	<0.01	0.68	2.1	12	0.89	1.0	<0.01	<0.01
	05 May 2022	0066_MW068_220505	Normal	EM2208151	0.23	0.02	0.66			<0.02	0.03	0.43	<0.02	<0.02	<0.1	0.06	0.09		0.02	<0.02	<0.02
	16 Nov 2022	0066_MW068_221115	Normal	EM2223006	0.15	0.01	0.32			0.02	0.02	0.17	<0.02	<0.02	<0.1	0.03	0.05		<0.02	<0.02	<0.02
	25 May 2023	0066_QC108_230525	Field_D	EM2309599	0.23	0.02	0.49			<0.02	0.02	0.26	<0.02	<0.02	<0.1	0.04	0.07		<0.02	<0.02	<0.02
		0066_QC208_230525	Interlab_D	993983	0.31	0.02	0.64			0.02	0.03	0.33	0.01	<0.01	<0.05	0.06	0.08	<0.01	0.02	<0.01	<0.01
	26 May 2023	0066_MW068_230526	Normal	EM2309599	0.26	0.02	0.57			0.03	0.02	0.31	<0.02	<0.02	<0.1	0.04	0.07		0.02	<0.02	<0.02
MW069	04 Dec 2023	0066_MW068_231204	Normal	EM2321752	0.15	0.01	0.38			<0.02	0.02	0.23	<0.02	<0.02	<0.1	0.04	0.07		<0.02	<0.02	<0.02
	09 May 2024	0066_MW068_240509	Normal	EM2407537	0.17	0.02	0.41			0.02	<0.02	0.24	<0.02	<0.02	<0.1	0.04	0.07		<0.02	<0.02	<0.02
	03 May 2022	0066_MW069_220503	Normal	EM2208151	0.01	<0.01	0.16			0.34	0.08	0.15	<0.02	<0.02	<0.1	0.06	0.16		<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW069_221115	Normal	EM2223006	0.04	<0.01	0.04			0.20	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02					

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorocarbons			
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)		
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001				
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																	
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																		

Location Code	Date	Field ID	Sample Type	Lab Report Number																	
MW102	08 May 2024	0066_MW075_240508	Normal	EM2407537	2.83	0.15	5.24		8.68	2.62	2.41	0.18	<0.02	2.1	2.74	9.33		0.27	<0.02	<0.02	<0.02
	04 Dec 2017	MW102_041217	Normal	576131	0.26	0.013	0.55		0.015	0.019	0.29	0.01	<0.001	0.012	0.005	0.027		0.006	<0.001	<0.001	<0.001
	28 Mar 2018	MW102_HS_180328	Normal	591827	0.36	0.013	0.58		0.019	0.022	0.22	0.009	<0.001	0.01	0.006	0.028		0.005	<0.001	<0.001	<0.001
	14 Nov 2019	0066_MW102_191114	Normal	EM1919512	0.61	0.01	0.87		0.02	<0.02	0.26	<0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_MW102_200519	Normal	EM2008583	0.67	0.02	0.93		<0.02	0.02	0.26	0.02	<0.02	<0.1	<0.02	0.04		<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW102_201125	Normal	EM2021043	0.93	0.02	1.13		<0.02	<0.02	0.20	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW102_210629	Normal	EM2112638	0.64	0.01	0.91		<0.02	<0.02	0.27	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
		0066_QC102_210629	Field_D	EM2112638	0.76	0.02	0.98		0.02	<0.02	0.22	<0.02	<0.02	<0.1	<0.02	0.02		<0.02	<0.02	<0.02	<0.02
		0066_QC202_210629	Interlab_D	807703	1.0	0.01	1.24	<0.01	0.02	0.02	0.24	0.02	<0.01	<0.05	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	30 Nov 2021	0066_MW102_211130	Normal	EM2124215	0.56	0.01	0.71		0.02	<0.02	0.15	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
		0066_QC106_211130	Field_D	EM2124215	0.62	<0.01	0.80		0.03	<0.02	0.18	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
		0066_QC206_211130	Interlab_D	849156	0.67	0.01	0.84	<0.01	0.02	0.01	0.17	0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	03 May 2022	0066_MW102_220503	Normal	EM2208151	0.52	0.01	0.76		0.03	0.02	0.24	<0.02	<0.02	<0.1	<0.02	0.03		<0.02	<0.02	<0.02	<0.02
	17 Nov 2022	0066_MW102_221117	Normal	EM2223006	0.52	0.01	0.68		0.04	<0.02	0.16	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW102_230525	Normal	EM2309599	0.46	0.02	0.58		0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW102_231204	Normal	EM2321752	0.34	0.01	0.40		<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	09 May 2024	0066_MW102_240509	Normal	EM2407537	0.48	0.01	0.59		0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
MW109	23 May 2016	0066_MW109_20160523	Normal		0.012	<0.002	0.015		0.004		0.003		<0.005	<0.1	<0.02	0.002		<0.002	<0.002	<0.005	<0.005
	05 Dec 2017	MW109_051217	Normal	576131	0.018	0.005	0.023		0.002	0.001	0.005	<0.001	<0.001	<0.005	<0.001	0.003		0.005	0.002	0.001	<0.001
	15 Nov 2019	0066_MW109_191115	Normal	EM1919512	0.02	<0.01	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW109_200520	Normal	EM2008583	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_MW109_201126	Normal	EM2021043	0.03	<0.01	0.03		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW109_210630	Normal	EM2112638	0.01	0.01	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	02 Dec 2021	0066_MW109_211202	Normal	EM2124215	0.03	0.01	0.05		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	05 May 2022	0066_MW109_220505	Normal	EM2208151	0.04	0.03	0.12		<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW109_221115	Normal	EM2223006	0.13	0.05	0.30		0.02	<0.02	0.17	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	26 May 2023	0066_MW109_230526	Normal	EM2309599	0.04	0.02	0.06		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW109_231204	Normal	EM2321752	0.06	0.02	0.10		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	09 May 2024	0066_MW109_240509	Normal	EM2407537	0.03	0.02	0.05		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
MW110	24 May 2016	0066_MW110_20160524	Normal		0.004	<0.002	0.261		0.289		0.257		<0.005	<0.1	<0.02	0.258		0.012	<0.002	<0.002	<0.005
	04 Dec 2017	MW110_041217	Normal	576131	0.022	0.038	0.682		0.11	0.16	0.66	0.005	<0.001	0.034	0.041	0.25		0.053	<0.001	<0.001	<0.001
	05 Apr 2018	MW110_HS_180405	Normal	592843	0.025	0.034	0.385		0.11	0.13	0.36	0.004	<0.001	0.029	0.032	0.22		0.033	<0.001	<0.001	<0.001
	14 Nov 2019	0066_MW110_191114	Normal	EM1919512	<0.05	<0.05	0.68		0.23	0.22	0.68	<0.05	<0.05	<0.2	0.09	0.49		0.09	<0.05	<0.05	0.08
	25 Nov 2020	0066_MW110_201125	Normal	EM2021043	0.02	0.04	0.64		0.20	0.15	0.62	<0.02	<0.02	<0.1	0.08	0.33		0.06	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW110_210629	Normal	EM2112638	<0.01	0.04	0.67		0.17	0.12	0.67	<0.02	<0.02	<0.1	0.06	0.32		0.07	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW110_211130	Normal	EM2124215	0.01	0.02	0.35		0.14	0.14	0.34	<0.02	<0.02	<0.1	0.04	0.22		0.04	<0.02	<0.02	<0.02
	05 May 2022	0066_MW110_220505	Normal	EM2208151	0.02	0.03	0.50		0.13	0.17	0.48	<0.02	<0.02	<0.1	0.04	0.25		0.05	<0.02	<0.02	<0.02
	15 Nov 2022	0066_QC201_221115	Interlab_D	943130	0.02	0.03	0.48	<0.01	0.11	0.14	0.46	<0.01	<0.01	0.05	0.05	0.26	0.02	0.05	<0.01	<0.01	<0.01
	16 Nov 2022	0066_MW110_221115	Normal	EM2223006	0.02	0.03	0.45		0.19	0.14	0.43	<0.02	<0.02	<0.1	0.05	0.26		0.05	<0.02	<0.02	<0.02
		0066_QC101_221115	Field_D	EM2223006	0.01	0.03	0.44		0.21	0.14	0.43	<0.02	<0.02	<0.1	0.04	0.24		0.05	<0.02	<0.02	<0.02
	25 May 2023	0066_MW110_230525	Normal	EM2309599	0.03	0.01	0.18		0.07	0.04	0.15	<0.02	<0.02	<0.1	<0.02	0.07		<0.02	<0.02	<0.02	<0.02
		0066_QC107_230525	Field_D	EM2309599	0.04	0.01	0.22		0.07	0.05	0.18	<0.02	<0.02	<0.1	<0.02	0.08		<0.02	<0.02	<0.02	<0.02
		0066_QC207_230525	Interlab_D	993983	0.05	0.01	0.21		0.04	0.04	0.16	<0.01	<0.01	<0.05	0.01	0.06	<0.01	0.01	<0.01	<0.01	<0.01
	04 Dec 2023	0066_MW110_231204	Normal	EM2321752	0.02	0.04	0.50		0.14	0.15	0.48	<0.02	<0.02	<0.1	0.04	0.24		0.05	<0.02	<0.02	<0.02
	09 May 2024	0066_MW110_240508	Normal	EM2407537	0.04	0.01	0.22		0.06	0.04	0.18	<0.02	<0.02	<0.1	0.02	0.08		<0.02	<0.02	<0.02	<0.02
MW111	24 May 2016	0066_MW111_20160524	Normal		0.002	<0.002	0.002		<0.002		<0.002		<0.005	<0.1	<0.02	<0.002		<0.002	&		

					Perfluorocarbons																	
					Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
LOR					µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
PFAS NEMP 2.0 Table 1 Health Drinking Water					0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 5 Freshwater 99%					0.00023	19	0.07															

Location Code	Date	Field ID	Sample Type	Lab Report Number																			
MW117	08 May 2024	0066_MW112_240508	Normal	EM2407537		<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC106_240508	Field_D	EM2407537		<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC206_240508	Interlab_D	1096549		<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	<0.01	<0.01
	25 May 2016	0066_MW117_20160525	Normal		<0.002	<0.002	<0.01		<0.002		<0.002		<0.005	<0.1	<0.02	<0.002		<0.002	<0.002	<0.002	<0.005	<0.005	
	06 Dec 2017	MW117_061217	Normal	577093		0.003	<0.001	0.009		<0.001	<0.001	0.006	<0.001	<0.001	<0.005	<0.001	<0.001		0.001	<0.001	<0.001	<0.001	<0.001
	04 Apr 2018	MW117_HS_180404	Normal	592478		0.001	<0.001	0.008		0.001	<0.001	0.007	<0.001	<0.001	<0.005	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
	19 Nov 2019	0066_MW117_191119	Normal	EM1919718		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW117_200520	Normal	EM2008583		0.01	<0.01	0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW117_201125	Normal	EM2021043		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Jun 2021	0066_MW117_210630	Normal	EM2112638		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW117_211130	Normal	EM2124215		<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC101_211130	Field_D	EM2124215		<0.01	<0.01	0.01		<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC201_211130	Interlab_D	849156	<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	<0.01	<0.01	<0.01
	04 May 2022	0066_MW117_220504	Normal	EM2208151		<0.01	<0.01	0.02		<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW117_221116	Normal	EM2223006		<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_MW117_230524	Normal	EM2309599		<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW117_231206	Normal	EM2321752		<0.01	<0.01	0.01		<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
08 May 2024	0066_MW117_240508	Normal	EM2407537		<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
MW121	05 Apr 2017	0066_MW121_20170405	Normal			9.26	1.18	25.8		1.66		16.5		<0.005	<0.1	0.63	2.86		0.46	<0.002	<0.002	<0.005	<0.005
	04 Apr 2018	MW121_HS_180404	Normal	592478		37	0.87	42.1		0.42	0.67	5.1	0.68	0.15	0.55	1	2.8		0.5	0.067	0.036	0.014	0.014
	20 Nov 2019	0066_MW121_191120	Normal	EM1919885		14.0	0.61	22.6		0.87	1.12	8.64	0.68	0.02	0.5	0.75	4.06		0.38	0.03	<0.02	<0.02	<0.02
	20 May 2020	0066_MW121_200520	Normal	EM2008583		13.8	0.52	18.2		0.42	0.60	4.43	0.57	0.06	0.3	0.56	1.92		0.31	0.03	<0.02	<0.02	<0.02
		0066_QC103_200520	Field_D	EM2008583		13.7	0.48	18.7		0.40	0.52	4.98	0.48	0.05	0.3	0.51	1.75		0.28	0.03	<0.02	<0.02	<0.02
		0066_QC203_200520	Interlab_D	721332	13	0.34	15.7	0.05	0.24	0.50	2.7	0.58	0.02	0.19	0.30	1.1	0.10	0.17	0.02	<0.01	<0.01	<0.01	
	25 Nov 2020	0066_MW121_201125	Normal	EM2021043		43.9	3.64	79.8		3.72	4.33	35.9	2.65	0.12	3.2	4.65	17.3		1.93	0.09	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW121_210629	Normal	EM2112638		41.5	4.56	96.2		5.37	6.04	54.7	2.92	<0.04	3.1	6.66	25.4		3.22	0.07	<0.04	<0.04	<0.04
	02 Dec 2021	0066_MW121_211130	Normal	EM2124215		19.6	2.31	40.4		2.54	2.44	20.8	1.48	<0.04	1.8	3.04	9.13		1.41	0.04	<0.02	<0.02	<0.02
		0066_QC100_211130	Field_D	EM2124215		22.9	2.38	48.2		2.60	3.42	25.3	2.71	0.05	1.8	3.45	10.8		1.55	0.05	<0.02	<0.02	<0.02
	03 May 2022	0066_MW121_220503	Normal	EM2208151		38.3	1.44	49.5		1.03	2.08	11.2	2.19	0.10	0.8	1.00	3.97		0.68	0.07	<0.02	<0.02	<0.02
		0066_QC100_220503	Field_D	EM2208151		37.9	1.26	49.0		0.94	0.99	11.1	1.13	<0.04	0.6	1.09	3.70		0.60	0.07	<0.04	<0.04	<0.04
		0066_QC200_220503	Interlab_D	886234	64	1.9	84	0.05	1.4	1.5	20	1.5	0.01	0.89	1.6	5.4	0.51	0.69	0.07	0.02	<0.01	<0.01	
	17 Nov 2022	0066_MW121_221117	Normal	EM2223006		48.0	4.44	92.9		4.94	5.76	44.9	2.42	0.07	2.1	5.74	18.6		4.07	0.22	<0.04	<0.04	<0.04
	24 May 2023	0066_MW121_230524	Normal	EM2309599		17.4	0.73	24.7		0.70	0.95	7.29	0.61	0.13	0.4	0.78	2.94		0.45	0.04	<0.02	<0.02	<0.02
	04 Dec 2023	0066_MW121_231204	Normal	EM2321752		2.65	0.12	3.90		0.14	0.17	1.25	0.10	0.02	<0.1	0.13	0.46		0.08	<0.02	<0.02	<0.02	<0.02
	07 May 2024	0066_MW121_240507	Normal	EM2407537		20.9	1.27	32.2		1.73	1.44	11.3	0.69	0.05	1.0	1.58	4.50		0.98	0.10	<0.02	<0.02	<0.02
MW122D	05 Apr 2017	0066_MW122D_20170405	Normal			<0.002	<0.002	0.3		0.06		0.3		<0.005	<0.1	<0.02	<0.002		<0.002	<0.002	<0.002	<0.005	<0.005
	04 Apr 2018	MW122D_HS_180404	Normal	592478		0.007	<0.001	0.007		<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
	20 Nov 2019	0066_MW122D_191120	Normal	EM1919885		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW122_D_200520	Normal	EM2008583		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW122D_201125	Normal	EM2021043		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW122D_210629	Normal	EM2112638		<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW122D_211130	Normal	EM2124215		0.01	<0.01	0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW122D_220503	Normal	EM2208151		0.03	<0.01	0.03		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																		
		0066_QC110_211201	Field_D	EM2124215	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC210_211201	Interlab_D	849156	<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	<0.01	<0.01
	03 May 2022	0066_MW202_220503	Normal	EM2208151	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW202_221116	Normal	EM2223006	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 May 2023	0066_MW202_230525	Normal	EM2309599	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	05 Dec 2023	0066_MW202_231205	Normal	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	08 May 2024	0066_MW202_240508	Normal	EM2407537	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	17 Oct 2017	MW204_171017	Normal	568720	<0.001	<0.005	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005		<0.001	<0.001	<0.001	<0.001	<0.001
	07 Dec 2017	MW204_071217	Normal	577093	<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	<0.001
	15 Nov 2019	0066_MW204_191115	Normal	EM1919512	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
19 May 2020	0066_MW204_200519	Normal	EM2008583	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
25 Nov 2020	0066_MW204_201125	Normal	EM2021043	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
29 Jun 2021	0066_MW204_210629	Normal	EM2112638	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
01 Dec 2021	0066_MW204_211201	Normal	EM2124215	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
03 May 2022	0066_MW204_220503	Normal	EM2208151	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
16 Nov 2022	0066_MW204_221116	Normal	EM2223006	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023	0066_MW204_230525	Normal	EM2309599	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
05 Dec 2023	0066_MW204_231205	Normal	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	0066_QC106_231205	Field_D	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	0066_QC206_231205	Interlab_D	1051767	<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	<0.01	<0.01	
08 May 2024	0066_MW204_240508	Normal	EM2407537	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	19 Oct 2017	MW206_191017	Normal	568935	<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	<0.01
	07 Dec 2017	MW206_071217	Normal	577093	<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	<0.001
	19 Nov 2019	0066_MW206_191119	Normal	EM1919718	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_MW206_200519	Normal	EM2008583	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW206_201125	Normal	EM2021043	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC100_201125	Field_D	EM2021043	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC200_201125	Interlab_D	760007	<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	<0.01	<0.01
	29 Jun 2021	0066_MW206_210629	Normal	EM2112638	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	01 Dec 2021	0066_MW206_211201	Normal	EM2124215	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW206_220503	Normal	EM2208151	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
16 Nov 2022	0066_MW206_221116	Normal	EM2223006	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023	0066_MW206_230525	Normal	EM2309599	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
05 Dec 2023	0066_MW206_231205	Normal	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
08 May 2024	0066_MW206_240508	Normal	EM2407537	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	17 Oct 2017	MW207_171017	Normal	568720	0.004	0.025	0.016		0.004	0.007	0.012	<0.001	<0.001	<0.005	<0.005	<0.005		0.006	<0.001	<0.001	<0.001	<0.001
	07 Dec 2017	MW207_071217	Normal	577093	0.006	0.019	0.016		0.005	0.003	0.01	<0.001	<0.001	<0.005	0.004	0.005		0.004	<0.001	<0.001	<0.001	<0.001
	04 Apr 2018	MW207_HS_180404	Normal	592478	0.005	0.015	0.013		0.004	0.003	0.008	<0.001	<0.001	<0.005	0.003	0.004		0.003	<0.001	<0.001	<0.001	<0.001
	15 Nov 2019	0066_MW207_191115	Normal	EM1919512	0.02	0.01	0.02		0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	19 May 2020	0066_MW207_200519	Normal	EM2008583	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																				
	25 May 2023	0066_MW208_230525	Normal	EM2309599	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_MW208_231205	Normal	EM2321752	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC108_231205	Field_D	EM2321752	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
		0066_QC208_231205	Interlab_D	1051767	<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	<0.01	<0.01	
	07 May 2024	0066_MW208_240507	Normal	EM2407537	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
MW209	19 Oct 2017	MW209_191017	Normal	568935	<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	<0.01	
	07 Dec 2017	MW209_071217	Normal	577093	<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	<0.001	
	19 Nov 2019	0066_MW209_191119	Normal	EM1919718	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	19 May 2020	0066_MW209_200519	Normal	EM2008583	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW209_201125	Normal	EM2021043	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW209_210629	Normal	EM2112638	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	01 Dec 2021	0066_MW209_211201	Normal	EM2124215	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW209_220503	Normal	EM2208151	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	16 Nov 2022	0066_MW209_221116	Normal	EM2223006	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	25 May 2023	0066_MW209_230525	Normal	EM2309599	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	05 Dec 2023	0066_MW209_231205	Normal	EM2321752	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	07 May 2024	0066_MW209_240507	Normal	EM2407537	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
	MW210	20 Oct 2017	MW210_201017	Normal	568935	<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	<0.01
		07 Dec 2017	MW210_071217	Normal	577093	<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	<0.001
			QC104_071217	Field_D	577093	<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	<0.001
15 Nov 2019		0066_MW210_191115	Normal	EM1919512	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
18 May 2020		0066_MW210_200518	Normal	EM2008583	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
25 Nov 2020		0066_MW210_201125	Normal	EM2021043	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
30 Jun 2021		0066_MW210_210630	Normal	EM2112638	<0.01	<0.01	<0.01			<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
30 Nov 2021		0066_MW210_211130	Normal	EM2124215	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
03 May 2022		0066_MW210_220503	Normal	EM2208151	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
16 Nov 2022		0066_MW210_221116	Normal	EM2223006	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
25 May 2023		0066_MW210_230525	Normal	EM2309599	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
06 Dec 2023		0066_MW210_231206	Normal	EM2321752	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
09 May 2024		0066_MW210_240509	Normal	EM2407537	<0.01	<0.01	<0.01			<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	
MW212		03 Apr 2018	MW212_LF_180403	Normal	592478	47	0.96	58			1.1	1.5	11	1.2	0.013	0.28	0.59	1.5		0.3	0.024	<0.01	<0.01	<0.01
		04 Apr 2018	MW212_HS_180404	Normal	592478	38	0.9	47.7			1.1	1.9	9.7	1.3	<0.01	0.32	0.61	1.6		0.31	0.021	<0.01	<0.01	<0.01
	20 Nov 2019	0066_MW212_191120	Normal	EM1919885	20.4	0.98	33.9			0.68	1.05	13.5	1.22	<0.05	<0.2	0.28	1.51		0.27	<0.05	<0.05	<0.05	<0.05	
	20 May 2020	0066_MW212_200520	Normal	EM2008583	42.2	1.28	57.6			0.94	1.40	15.4	2.61	<0.02	0.2	0.44	1.74		0.41	0.02	<0.02	<0.02	<0.02	
	25 Nov 2020	0066_MW212_201125	Normal	EM2021043	28.6	0.92	37.7			0.54	0.79	9.13	1.62	<0.02	0.2	0.29	0.99		0.27	<0.02	<0.02	<0.02	<0.02	
	29 Jun 2021	0066_MW212_210629	Normal	EM2112638	36.8	0.99	46.2			0.52	0.73	9.36	1.60	<0.02	0.3	0.29	0.83		0.24	0.02	<0.02	<0.02	<0.02	
	30 Nov 2021	0066_MW212_211130	Normal	EM2124215	28.9	0.90	37.7			0.43	0.67	8.79	1.48	<0.02	<0.1	0.24	0.90		0.24	<0.02	<0.02	<0.02	<0.02	
	03 May 2022	0066_MW212_220503	Normal	EM2208151	33.7	0.76	41.3			0.44	0.98	7.61	2.11	<0.02	<0.1	0.18	0.72		0.21	0.02	<0.02	<0.02	<0.02	
	17 Nov 2022	0066_MW212_221117	Normal	EM2223006	29.1	0.82	37.3			0.42	0.65	8.19	1.34	<0.02	0.2	0.23	0.82		0.21	0.02	<0.02	<0.02	<0.02	
	24 May 2023	0066_MW212_230524	Normal	EM2309599	32.9	0.76	40.6			0.32	0.53	7.66	1.25	<0.02	<0.1	0.17	0.69		0.13	0.03	<0.02	<0.02	<0.02	
	04 Dec 2023	0066_MW212_231204	Normal	EM2321752	27.5	0.69	34.5																	

	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)
	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																		
MW215D	24 May 2023	0066_MW214D_230524	Normal	EM2309599	0.22	0.01	0.38		<0.02	<0.02	0.16	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	
	06 Dec 2023	0066_MW214D_231206	Normal	EM2321752	0.23	<0.01	0.31		<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	
	08 May 2024	0066_MW214D_240508	Normal	EM2407537	0.19	<0.01	0.28		<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	
	03 Apr 2018	MW215D_HS_180403	Normal	592478	3.1	0.26	8.5		0.66	0.99	5.4	0.25	<0.01	0.088	0.18	1		0.13	<0.01	<0.01	<0.01	<0.01
		MW215D_LF_180403	Normal	592478	2	0.18	6.1		0.51	0.72	4.1	0.18	<0.001	0.058	0.12	0.65		0.094	<0.001	<0.001	<0.001	<0.001
	19 Nov 2019	0066_MW215D_191119	Normal	EM1919885	0.65	0.11	4.37		0.35	0.54	3.72	0.11	<0.02	<0.1	0.06	0.49		0.06	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW215_D_200529	Normal	EM2008583	1.01	0.12	4.84		0.37	0.56	3.83	0.13	<0.02	<0.1	0.08	0.48		0.08	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW215D_201125	Normal	EM2021043	0.59	0.09	2.74		0.28	0.26	2.15	0.09	<0.02	<0.1	0.06	0.30		0.05	<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW215D_210629	Normal	EM2112638	0.39	0.08	2.21		0.54	0.31	1.82	0.07	<0.02	<0.1	0.05	0.26		0.04	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW215D_211130	Normal	EM2124215	0.53	0.08	2.60		0.29	0.33	2.07	0.08	<0.02	<0.1	0.05	0.27		0.05	<0.02	<0.02	<0.02	<0.02
	03 May 2022	0066_MW215D_220503	Normal	EM2208151	0.44	0.07	2.41		0.24	0.32	1.97	0.07	<0.02	<0.1	0.05	0.20		0.04	<0.02	<0.02	<0.02	<0.02
		0066_QC102_220503	Field_D	EM2208151	0.49	0.07	2.38		0.28	0.29	1.89	0.07	<0.02	<0.1	0.04	0.22		0.05	<0.02	<0.02	<0.02	<0.02
		0066_QC202_220503	Interlab_D	886234	0.65	0.08	3.75	<0.01	0.26	0.36	3.1	0.06	<0.01	<0.05	0.04	0.24	0.11	0.05	<0.01	<0.01	<0.01	<0.01
	16 Nov 2022	0066_MW215D_221116	Normal	EM2223006	0.58	0.09	2.82		0.28	0.39	2.24	0.08	<0.02	<0.1	0.05	0.30		0.05	<0.02	<0.02	<0.02	<0.02
	24 May 2023	0066_MW215D_230524	Normal	EM2309599	0.51	0.09	2.74		0.28	0.37	2.23	0.08	<0.02	<0.1	0.04	0.30		0.03	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW215D_231206	Normal	EM2321752	0.49	0.09	2.82		0.29	0.38	2.33	0.09	<0.02	<0.1	0.05	0.32		0.06	<0.02	<0.02	<0.02	<0.02
	08 May 2024	0066_MW215D_240508	Normal	EM2407537	0.43	0.09	2.62		0.34	0.30	2.19	0.05	<0.02	<0.1	0.05	0.26		0.06	<0.02	<0.02	<0.02	<0.02
MW215S	04 Apr 2018	MW215S_HS_180404	Normal	592478	5.6	0.48	17.6		1.2	2	12	0.48	<0.01	0.15	0.34	1.9		0.25	<0.01	<0.01	<0.01	<0.01
		MW215S_LF_180404	Normal	592478	6.4	0.61	20.4		1.4	2.4	14	0.57	<0.01	0.21	0.43	2.6		0.32	<0.01	<0.01	<0.01	<0.01
		QC101_180404	Field_D	592478	5.8	0.59	18.8		1.4	2.1	13	0.54	<0.01	0.2	0.43	2.6		0.29	<0.01	<0.01	<0.01	<0.01
		QC201_180404	Interlab_D	EM1805793	5.04	0.58	19.0		1.21	1.92	14.0	0.47	<0.02	<0.1	0.39	2.50		0.32	<0.02	<0.02	<0.02	<0.02
	19 Nov 2019	0066_MW215S_191119	Normal	EM1919885	7.37	0.92	26.8		2.25	3.49	19.4	0.91	<0.02	0.3	0.66	5.34		0.43	<0.02	<0.02	<0.02	<0.02
	20 Nov 2019	0066_MW215S_191120	Normal	EM1919885	7.96	0.89	24.8		1.94	3.15	16.8	0.90	<0.02	0.2	0.57	4.60		0.38	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW215_S_200520	Normal	EM2008583	5.89	0.80	19.4		1.91	4.18	13.5	1.22	<0.02	0.4	0.76	4.29		0.53	<0.02	<0.02	<0.02	<0.02
	25 Nov 2020	0066_MW215S_201125	Normal	EM2021043	13.2	1.17	33.6		2.67	3.57	20.4	1.10	<0.02	0.6	1.14	3.98		0.67	<0.02	<0.02	<0.02	<0.02
	29 Jun 2021	0066_MW215S_210629	Normal	EM2112638	12.9	1.43	37.9		3.15	4.16	25.0	1.65	<0.02	0.8	1.23	6.51		0.86	<0.02	<0.02	<0.02	<0.02
	30 Nov 2021	0066_MW215S_211130	Normal	EM2124215	27.3	2.73	71.2		5.18	7.01	43.9	4.32	<0.02	1.0	2.15	10.6		1.66	<0.02	<0.02	<0.02	<0.02
		0066_QC102_211130	Field_D	EM2124215	26.8	2.76	74.8		5.47	7.13	48.0	4.22	<0.02	1.2	2.39	10.3		1.76	<0.02	<0.02	<0.02	<0.02
		0066_QC202_211130	Interlab_D	849156	29	2.6	68	<0.01	5.6	6.6	39	2.4	<0.01	1.1	2.1	9.9	2.7	1.4	<0.01	<0.01	<0.01	<0.01
	03 May 2022	0066_MW215S_220503	Normal	EM2208151	9.03	0.82	25.0		1.87	2.90	16.0	1.11	<0.02	0.3	0.58	3.05		0.43	<0.02	<0.02	<0.02	<0.02
	16 Nov 2022	0066_MW215S_221116	Normal	EM2223006	29.0	2.92	80.1		7.10	10.1	51.1	2.40	<0.04	1.3	2.72	13.3		1.59	<0.04	<0.04	<0.04	<0.04
	24 May 2023	0066_MW215S_230524	Normal	EM2309599	35.0	2.97	78.9		6.54	7.46	43.9	2.62	<0.02	1.7	2.58	13.9		1.48	<0.02	<0.02	<0.02	<0.02
	06 Dec 2023	0066_MW215S_231206	Normal	EM2321752	36.3	2.51	84.5		7.99	8.97	48.2	2.53	<0.02	1.0	2.83	14.2		1.76	<0.02	<0.02	<0.02	<0.02
	08 May 2024	0066_MW215S_240508	Normal	EM2407537	44.7	2.61	108		9.58	11.1	63.2	3.37	<0.02	1.4	2.66	20.8		1.92	<0.02	<0.02	<0.02	<0.02
MW217D	29 Mar 2018	MW217D_HS_180329	Normal	591914	0.034	0.002	0.047		0.004	0.003	0.013	<0.001	<0.001	<0.005	0.003	0.005		<0.001	<0.001	<0.001	<0.001	<0.001
		MW217D_LF_180329	Normal	591914	0.017	0.001	0.023		0.002	0.001	0.006	<0.001	<0.001	<0.005	<0.001	0.002		<0.001	<0.001	<0.001	<0.001	<0.001
		QC101_180329	Field_D	591914	0.019	0.001	0.025		0.002	0.002	0.006	<0.001	<0.001	<0.005	<0.001	0.002		<0.001	<0.001	<0.001	<0.001	<0.001
		QC201_180329	Interlab_D	EM1805570	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05
	20 Nov 2019	0066_MW217_D_191120	Normal	EM1919885	0.02	<0.01	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	20 May 2020	0066_MW217_D_200520	Normal	EM2008583	0.02	<0.01	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	26 Nov 2020	0066_MW217D_201126	Normal	EM2021043	0.04	<0.01	0.08		<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
	02 Jul 2021	0066_MW217D_210702	Normal	EM2112638	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC109_210702	Field_D	EM2112638	<0.01	<0.01	<0.01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02
		0066_QC209_210702	Interlab_D	807707	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	<0.01	<0.01
	01 Dec 2021	0066_MW217D_211201	Normal	EM2124215	<0.01	<0.01	<0.01															

Perfluorocarbons																		
Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorononanesulfonic acid (PFNS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	
µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L	µg/L	µg/L	µg/L	µg/L	
LOR	0.0001	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.01	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07															
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																

Location Code	Date	Field ID	Sample Type	Lab Report Number																	
		0066_QC201_230524	Interlab_D	993983	<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	<0.01
	06 Dec 2023	0066_MW218_231206	Normal	EM2321752	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02
	08 May 2024	0066_MW218_240508	Normal	EM2407537	<0.01	<0.01	<0.01		<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02

Notes

Denotes first time detection above LOR in latest monitoring round

Denotes new exceedance of lowest adopted screening criteria in latest monitoring round

	Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																
MW003	29 Mar 2018	MW003_HS_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
	15 Nov 2019	0066_MW003_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	19 May 2020	0066_MW003_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 Nov 2020	0066_MW003_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	30 Jun 2021	0066_MW003_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	30 Nov 2021	0066_MW003_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	03 May 2022	0066_MW003_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	16 Nov 2022	0066_MW003_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 May 2023	0066_MW003_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	06 Dec 2023	0066_MW003_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	09 May 2024	0066_MW003_240509	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
MW017	09 May 2016	0066_GW08-VT0067_20160504	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	31 May 2016	0066-VT0067 GW08	Normal																	
				502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01				
	05 Apr 2017	0066_GW08-VT0067_20170404	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	20 Oct 2017	GW08-VT0067_201017	Normal	568935	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	19.18		
	06 Dec 2017	GW08-VT0067_061217	Normal	577093	0.014	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	0.002	<0.001	34.692		
	04 Apr 2018	GW08-VT0067_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	23.58		
	19 Nov 2019	0066_GW08-VT0067_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	32.7		
	20 May 2020	0066_MW017_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	55.0		
		0066_QC101_200520	Field_D	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	37.8		
	25 Nov 2020	0066_QC201_200520	Interlab_D	721332	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	26.66	1.17	18.17
		0066_MW017_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.4		
		0066_QC101_201125	Field_D	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.2		
		0066_QC201_201125	Interlab_D	760007	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	9.54	2.46	7.46
	30 Jun 2021	0066_MW017_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	23.6		
	30 Nov 2021	0066_MW017_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	20.0		
	03 May 2022	0066_MW017_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	18.4		
	16 Nov 2022	0066_MW017_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	7.91		
24 May 2023	0066_MW017_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.8			
06 Dec 2023	0066_MW017_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.2			
08 May 2024	0066_MW017_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.0			
MW018	09 May 2016	0066_GW09-VT0067_20160504	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	31 May 2016	0066-VT0067 GW09	Normal																	
				502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01				
		0066-VT0067 QC102	Field_D	502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01				
	06 Dec 2017	GW09-VT0067_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.047		
		QC102_061217	Field_D	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.053		
	04 Apr 2018	GW09-VT0067_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.044		
	21 May 2020	0066_MW018_200521	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09		
	25 Nov 2020	0066_MW018_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
	30 Jun 2021	0066_MW018_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11		
	30 Nov 2021	0066_MW018_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
	04 May 2022	0066_MW018_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
	24 May 2023	0066_MW018_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
	06 Dec 2023	0066_MW018_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09		
	08 May 2024	0066_MW018_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
MW019	21 May 2016	0066_GW01-VT0191_20160504	Normal		<0.005	<0.0														

	Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																	
	30 Nov 2021	0066_MW025_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.83			
	03 May 2022	0066_MW025_220503	Normal	EM2208151	<0.02	<0.05	0.02	<0.05	<0.05	<0.05	<0.05	<0.02	0.05	<0.05	<0.05	<0.05	<0.05	5.20			
	24 May 2023	0066_MW025_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.21			
	06 Dec 2023	0066_MW025_231206	Normal	EM2321752	<0.02	<0.05	0.02	<0.05	<0.05	<0.05	<0.05	<0.02	0.04	<0.05	<0.05	<0.05	<0.05	4.63			
	09 May 2024	0066_MW025_240508	Normal	EM2407537	<0.02	<0.05	0.02	<0.05	<0.05	<0.05	<0.05	<0.02	0.05	<0.05	<0.05	<0.05	<0.05	5.52			
MW027	30 May 2018	0066_GW04-VT0363_180530	Normal	601156	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	<0.1	<0.00001	<0.01	
MW028	25 Nov 2020	0066_MW027_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	30 May 2016	0066-VT0365 GW01	Normal																		
				502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01					
	05 Dec 2017	GW01-VT0365_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	2.671			
	16 Feb 2018	GW01-VT0365_180216	Normal	585592	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.975			
	15 Nov 2019	0066_GW01-VT0365_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.79			
	19 May 2020	0066_MW028_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.87			
	26 Nov 2020	0066_MW028_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.55			
	29 Jun 2021	0066_MW028_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.76			
	30 Nov 2021	0066_MW028_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.50			
	04 May 2022	0066_MW028_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.61			
	16 Nov 2022	0066_MW028_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.55			
	26 May 2023	0066_MW028_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.48			
		0066_QC109_230526	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.67			
		0066_QC209_230526	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	2.17	0.71	1.81	
	04 Dec 2023	0066_MW028_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.07			
		0066_QC104_231204	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.44			
		0066_QC204_231204	Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	2.25	0.71	1.81	
	08 May 2024	0066_MW028_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.92			
MW029	30 May 2016	0066-VT0365 GW02	Normal																		
				502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01					
	06 Dec 2017	GW02-VT0365_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.329			
	16 Feb 2018	GW02-VT0365_180216	Normal	585592	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.168			
	14 Nov 2019	0066_GW02-VT0365_191114	Normal	EM1919512	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.53			
	19 May 2020	0066_MW029_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.46			
	26 Nov 2020	0066_MW029_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.22			
	29 Jun 2021	0066_MW029_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07			
	30 Nov 2021	0066_MW029_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37			
	04 May 2022	0066_MW029_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13			
	15 Nov 2022	0066_QC200_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.27	0.05	0.14	
	16 Nov 2022	0066_MW029_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24			
		0066_QC100_221115	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23			
	29 May 2023	0066_MW029_230529	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
	05 Dec 2023	0066_MW029_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05			
	08 May 2024	0066_MW029_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
MW030	30 May 2016	0066-VT0365 GW03	Normal																		
				502716	<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01					
	06 Dec 2017	GW03-VT0365_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.253			
	16 Feb 2018	GW03-VT0365_180216	Normal	585592	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.124			
	20 Nov 2019	0066_GW03-VT0365_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	19 May 2020	0066_MW030_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12			
	26 Nov 2020	0066_MW030_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0												

	Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
	µg/L	µg/L	µg/L	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	ug/L
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																		
MW034	24 May 2023	0066_MW033_230524	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02			
	04 Dec 2023	0066_MW033_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03			
	09 May 2024	0066_MW033_240509	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02			
	19 May 2016	0066_GW01-VT0367_201605	Normal			<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.005	<0.05	<0.01	<0.01	<0.05			
	04 Dec 2017	GW01-VT0367_041217	Normal	576131		<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.0326		
	14 Nov 2019	0066_GW01-VT0367_191114	Normal	EM1919512		<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06		
	19 May 2020	0066_MW034_200519	Normal	EM2008583		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04			
	25 Nov 2020	0066_MW034_201125	Normal	EM2021043		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02			
	29 Jun 2021	0066_MW034_210629	Normal	EM2112638		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	30 Nov 2021	0066_MW034_211130	Normal	EM2124215		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02			
	03 May 2022	0066_MW034_220503	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	16 Nov 2022	0066_MW034_221115	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01			
	25 May 2023	0066_MW034_230525	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	04 Dec 2023	0066_MW034_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	09 May 2024	0066_MW034_240509	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
MW036	10 May 2016	0066_GW03-VT0367_201605	Normal			<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05				
	04 Dec 2017	GW03-VT0367_041217	Normal	576131		<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.1233			
	28 Mar 2018	GW03-VT0367_HS_180328	Normal	591827		<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.091	0.000008	0.047	
	20 Nov 2019	0066_GW03-VT0367_191120	Normal	EM1919885		<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14			
	19 May 2020	0066_MW036_200519	Normal	EM2008583		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16			
	25 Nov 2020	0066_MW036_201125	Normal	EM2021043		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07			
	29 Jun 2021	0066_MW036_210629	Normal	EM2112638		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
	30 Nov 2021	0066_MW036_211130	Normal	EM2124215		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07			
	03 May 2022	0066_MW036_220503	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
	16 Nov 2022	0066_MW036_221115	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05			
	25 May 2023	0066_MW036_230525	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
	04 Dec 2023	0066_MW036_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.04			
	09 May 2024	0066_MW036_240509	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05			
	MW041	09 May 2016	0066_GW02-VT0369_201605	Normal			<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
		04 Dec 2017	GW02-VT0369_041217	Normal	576131		<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.59		
28 Mar 2018		GW02-VT0369_HS_180328	Normal	591827		<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.429	0.000034	0.294	
14 Nov 2019		0066_GW02-VT0369_191114	Normal	EM1919512		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44			
19 May 2020		0066_MW041_200519	Normal	EM2008583		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.55			
26 Nov 2020		0066_MW041_201126	Normal	EM2021043		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28			
29 Jun 2021		0066_MW041_210629	Normal	EM2112638		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.25			
01 Dec 2021		0066_MW041_211201	Normal	EM2124215		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.26			
05 May 2022		0066_MW041_220505	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.27			
17 Nov 2022		0066_MW041_221117	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.35			
25 May 2023		0066_MW041_230525	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40			
04 Dec 2023		0066_MW041_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.39			
		0066_QC103_231204	Field_D	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.46			
		0066_QC203_231204	Interlab_D	1051767		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.39	0.04	0.3
09 May 2024		0066_MW041_240509	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40			
MW043	30 May 2016	0066-VT0370 GW01	Normal																			
				502716		<0.01	<0.01	<0.05	<0.05		<0.05				<0.01	<0.05	<0.01					
	01 Dec 2017	GW01-VT0370_011217	Normal	575567		<0.001	<0.001	<0.005	<0.005	<0.005</												

	Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																
	01 Dec 2021	0066_MW046_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
		0066_QC108_211201	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
		0066_QC208_211201	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15	0.05	0.08
	03 May 2022	0066_MW046_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13		
	15 Nov 2022	0066_QC206_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15	0.07	0.1
	17 Nov 2022	0066_MW046_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
		0066_QC106_221117	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
	24 May 2023	0066_MW046_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
	04 Dec 2023	0066_MW046_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
	09 May 2024	0066_MW046_240509	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06		
MW047	04 Dec 2017	GW02-VT0371_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.649		
	28 Mar 2018	GW02-VT0371_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.44	0.000144	0.304
	14 Nov 2019	0066_GW02-VT0371_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.38		
	20 May 2020	0066_MW047_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44		
	25 Nov 2020	0066_MW047_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31		
	30 Jun 2021	0066_MW047_210630	Normal	EM2113696	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28		
	01 Dec 2021	0066_MW047_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29		
	03 May 2022	0066_MW047_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40		
	17 Nov 2022	0066_MW047_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28		
	29 May 2023	0066_MW047_230529	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24		
04 Dec 2023	0066_MW047_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.25			
MW051	10 May 2016	0066_GW01-VT0372_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	06 Dec 2017	GW01-VT0372_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.354		
	28 Mar 2018	GW01-VT0372_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.32	0.00022	0.275
	26 Nov 2020	0066_MW051_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.38		
		0066_QC104_201126	Field_D	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.22		
		0066_QC204_201126	Interlab_D	760007	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	1.4	0.67	1.16
	30 Jun 2021	0066_MW051_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.72		
	01 Dec 2021	0066_MW051_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29		
	03 May 2022	0066_MW051_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.46		
		0066_QC103_220503	Field_D	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.44		
0066_QC203_220503		Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.53	0.26	0.43	
16 Nov 2022	0066_MW051_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12			
25 May 2023	0066_MW051_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13			
04 Dec 2023	0066_MW051_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10			
09 May 2024	0066_MW051_240509	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12			
MW054	24 May 2016	0066_GW01-VT0373_201605	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	05 Dec 2017	GW01-VT0373_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
	28 Mar 2018	GW01-VT0373_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	<0.005	0.000001	0.001
	15 Nov 2019	0066_GW01-VT0373_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	20 May 2020	0066_MW054_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 Nov 2020	0066_MW054_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	02 Jul 2021	0066_MW054_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	02 Dec 2021	0066_MW054_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	03 May 2022	0066_MW054_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	15 Nov 20 May																			

	Perfluorotridecanoic acid (PFTfDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																
MW062		0066_QC205_240508	Interlab_D	1096549		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.23	0.05	0.2
	26 Nov 2020	0066_MW062_201126	Normal	EM2021043		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62	
	30 Jun 2021	0066_MW062_210630	Normal	EM2112638		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.59	
	02 Dec 2021	0066_MW062_211202	Normal	EM2124215		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.56	
	04 May 2022	0066_MW062_220503	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.60	
	17 Nov 2022	0066_MW062_221117	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.58	
	25 May 2023	0066_MW062_230525	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.40	
	04 Dec 2023	0066_MW062_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.47	
		0066_QC102_231204	Field_D	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.53	
		0066_QC202_231204	Interlab_D	1051767		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.44	0.09
08 May 2024	0066_MW062_240508	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.47		
MW063	27 Nov 2020	0066_MW063_201127	Normal	EM2021043		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	29 Jun 2021	0066_MW063_210628	Normal	EM2112638		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	30 Nov 2021	0066_MW063_211130	Normal	EM2124215		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01	
	04 May 2022	0066_MW063_220504	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	16 Nov 2022	0066_MW063_221115	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	24 May 2023	0066_MW063_230524	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	06 Dec 2023	0066_MW063_231206	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03	
	08 May 2024	0066_MW063_240508	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03	
		0066_QC104_240508	Field_D	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03	
		0066_QC204_240508	Interlab_D	1096549		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01
MW064	26 Nov 2020	0066_MW064_201126	Normal	EM2021043		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.94	
	30 Jun 2021	0066_MW064_210630	Normal	EM2112638		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.22	
	01 Dec 2021	0066_MW064_211201	Normal	EM2124215		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.41	
	04 May 2022	0066_MW064_220504	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.74	
	16 Nov 2022	0066_MW064_221115	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.03	
	26 May 2023	0066_MW064_230526	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.54	
	04 Dec 2023	0066_MW064_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.76	
		0066_QC100_231204	Field_D	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.75	
		0066_QC200_231204	Interlab_D	1051767		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.23	<0.01	<0.01	0.95	0.53
	08 May 2024	0066_MW064_240508	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.77	
MW067	05 May 2022	0066_MW067_220505	Normal	EM2208151		<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	<0.05	<0.05	<0.05	68.1	
	17 Nov 2022	0066_MW067_221117	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	96.1	
	24 May 2023	0066_MW067_230524	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	97.3	
	06 Dec 2023	0066_MW067_231206	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	92.9	
	08 May 2024	0066_MW067_240508	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	111	
		0066_QC103_240508	Field_D	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	111	
0066_QC203_240508		Interlab_D	1096549		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	103.6	6.6	79.6
MW068	05 May 2022	0066_MW068_220505	Normal	EM2208151		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.88	
	16 Nov 2022	0066_MW068_221115	Normal	EM2223006		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.45	
	25 May 2023	0066_QC108_230525	Field_D	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.64	
		0066_QC208_230525	Interlab_D	993983		<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.88	0.33
	26 May 2023	0066_MW068_230526	Normal	EM2309599		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.77	
	04 Dec 2023	0066_MW068_231204	Normal	EM2321752		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.52	
09 May 2024	0066_MW068_240509	Normal	EM2407537		<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.56		
MW069	03 May 2022	0066_MW069_220503	Normal	EM2208151		<0.02	<													

	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																
MW102	08 May 2024	0066_MW075_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	36.7		
	04 Dec 2017	MW102_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.657		
	28 Mar 2018	MW102_HS_180328	Normal	591827	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.001	<0.001	0.692	0.000373	0.593
	14 Nov 2019	0066_MW102_191114	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.94		
	19 May 2020	0066_MW102_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.03		
	25 Nov 2020	0066_MW102_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.15		
	29 Jun 2021	0066_MW102_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.95		
		0066_QC102_210629	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.04		
		0066_QC202_210629	Interlab_D	807703	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	1.34	1.01	1.25
	30 Nov 2021	0066_MW102_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.74		
		0066_QC106_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.83		
		0066_QC206_211130	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.91	0.68	0.85
	03 May 2022	0066_MW102_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.85		
	17 Nov 2022	0066_MW102_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.73		
	25 May 2023	0066_MW102_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62		
	04 Dec 2023	0066_MW102_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.41		
	09 May 2024	0066_MW102_240509	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62		
MW109	23 May 2016	0066_MW109_20160523	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	05 Dec 2017	MW109_051217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.042		
	15 Nov 2019	0066_MW109_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
	20 May 2020	0066_MW109_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	26 Nov 2020	0066_MW109_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	30 Jun 2021	0066_MW109_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
	02 Dec 2021	0066_MW109_211202	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06		
	05 May 2022	0066_MW109_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15		
	16 Nov 2022	0066_MW109_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37		
	26 May 2023	0066_MW109_230526	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
	04 Dec 2023	0066_MW109_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
	09 May 2024	0066_MW109_240509	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
	24 May 2016	0066_MW110_20160524	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	04 Dec 2017	MW110_041217	Normal	576131	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	1.373		
	05 Apr 2018	MW110_HS_180405	Normal	592843	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.977		
	14 Nov 2019	0066_MW110_191114	Normal	EM1919512	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.88		
	25 Nov 2020	0066_MW110_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.50		
29 Jun 2021	0066_MW110_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.45			
30 Nov 2021	0066_MW110_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.95			
05 May 2022	0066_MW110_220505	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.17			
15 Nov 2022	0066_QC201_221115	Interlab_D	943130	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	1.19	0.05	0.51	
16 Nov 2022	0066_MW110_221115	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.17			
	0066_QC101_221115	Field_D	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.15			
	0066_MW110_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37			
25 May 2023	0066_QC107_230525	Field_D	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.43			
	0066_QC207_230525	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.38	0.06	0.22	
	0066_MW110_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.16			
09 May 2024	0066_MW110_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.43			
MW111	24 May 2016	0066_MW111_20160524	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005							

	Perfluorotridecanoic acid (PFTiDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																
MW117	08 May 2024	0066_MW112_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC106_240508	Field_D	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC206_240508	Interlab_D	1096549	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
	25 May 2016	0066_MW117_20160525	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	06 Dec 2017	MW117_061217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.01		
	04 Apr 2018	MW117_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.009		
	19 Nov 2019	0066_MW117_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	20 May 2020	0066_MW117_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	25 Nov 2020	0066_MW117_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	30 Jun 2021	0066_MW117_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
MW121	30 Nov 2021	0066_MW117_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC101_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC201_211130	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
	04 May 2022	0066_MW117_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
	16 Nov 2022	0066_MW117_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	24 May 2023	0066_MW117_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	06 Dec 2023	0066_MW117_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	08 May 2024	0066_MW117_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	05 Apr 2017	0066_MW121_20170405	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	0.24	<0.01	<0.05			
	04 Apr 2018	MW121_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.41	0.24	<0.01	50.521		
20 Nov 2019	0066_MW121_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.27	0.09	<0.05	32.0			
20 May 2020	0066_MW121_200520	Normal	EM2008583	<0.02	<0.05	0.04	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.20	0.06	<0.05	23.8			
	0066_QC103_200520	Field_D	EM2008583	<0.02	<0.05	0.03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.19	<0.05	<0.05	23.7			
	0066_QC203_200520	Interlab_D	721332	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.13	0.03	<0.01	19.47	13.34	16.04	
25 Nov 2020	0066_MW121_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	1.40	0.11	<0.05	123			
29 Jun 2021	0066_MW121_210629	Normal	EM2112638	<0.04	<0.10	<0.04	<0.10	<0.10	<0.10	<0.04	<0.04	<0.05	1.89	0.07	<0.05	156				
02 Dec 2021	0066_MW121_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.67	0.06	<0.05	65.3			
	0066_QC100_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.84	0.05	<0.05	77.9			
03 May 2022	0066_MW121_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.41	0.07	<0.05	63.3			
	0066_QC100_220503	Field_D	EM2208151	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	0.33	0.06	<0.05	59.8			
	0066_QC200_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.45	0.07	<0.01	100.06	65.9	85.9	
17 Nov 2022	0066_MW121_221117	Normal	EM2223006	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	0.86	0.12	<0.05	142			
24 May 2023	0066_MW121_230524	Normal	EM2309599	<0.02	<0.05	0.03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.20	<0.05	<0.05	32.6			
04 Dec 2023	0066_MW121_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.12			
07 May 2024	0066_MW121_240507	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.20	<0.05	<0.05	46.7			
MW122D	05 Apr 2017	0066_MW122D_20170405	Normal		<0.005	<0.05	<0.002		<0.1		<0.1	<0.05	<0.005	<0.05	<0.01	<0.01	<0.05			
	04 Apr 2018	MW122D_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.007		
	20 Nov 2019	0066_MW122D_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	20 May 2020	0066_MW122_D_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 Nov 2020	0066_MW122D_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	29 Jun 2021	0066_MW122D_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	30 Nov 2021	0066_MW122D_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	03 May 2022	0066_MW122D_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	17 Nov 2022	0066_MW122D_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
	24 May 2023	0066_MW122D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	04 Dec 2023	0066_MW122D_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	07 May 2024	0066_MW122D_240507	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.					

	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOAAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOAAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																
MW204		0066_QC110_211201	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01
		0066_QC210_211201	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
	03 May 2022	0066_MW202_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	16 Nov 2022	0066_MW202_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 May 2023	0066_MW202_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	05 Dec 2023	0066_MW202_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	08 May 2024	0066_MW202_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	17 Oct 2017	MW204_171017	Normal	568720	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
	07 Dec 2017	MW204_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
	15 Nov 2019	0066_MW204_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	19 May 2020	0066_MW204_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 Nov 2020	0066_MW204_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	29 Jun 2021	0066_MW204_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	01 Dec 2021	0066_MW204_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	03 May 2022	0066_MW204_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	16 Nov 2022	0066_MW204_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 May 2023	0066_MW204_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	05 Dec 2023	0066_MW204_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	0066_QC106_231205	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	0066_QC206_231205	Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
08 May 2024	0066_MW204_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
MW206	19 Oct 2017	MW206_191017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1		
	07 Dec 2017	MW206_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
	19 Nov 2019	0066_MW206_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	19 May 2020	0066_MW206_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 Nov 2020	0066_MW206_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC100_201125	Field_D	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC200_201125	Interlab_D	760007	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
	29 Jun 2021	0066_MW206_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	01 Dec 2021	0066_MW206_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	03 May 2022	0066_MW206_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	16 Nov 2022	0066_MW206_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 May 2023	0066_MW206_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	05 Dec 2023	0066_MW206_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	08 May 2024	0066_MW206_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	17 Oct 2017	MW207_171017	Normal	568720	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.058		
	07 Dec 2017	MW207_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.056		
	04 Apr 2018	MW207_HS_180404	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.045		
	15 Nov 2019	0066_MW207_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06		
19 May 2020	0066_MW207_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
25 Nov 2020	0066_MW207_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01			
29 Jun 2021	0066_MW207_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	0066_QC101_210629	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	0066_QC201_210629	Interlab_D	807703	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01	
01 Dec 2021	0066_MW207_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	0066_QC107_211201	Field_D																		

	Perfluorotridecanoic acid (PFTfDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	µg/L
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number																	
	25 May 2023	0066_MW208_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	05 Dec 2023	0066_MW208_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
		0066_QC108_231205	Field_D	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
		0066_QC208_231205	Interlab_D	1051767	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01	
	07 May 2024	0066_MW208_240507	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
MW209	19 Oct 2017	MW209_191017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1			
	07 Dec 2017	MW209_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005			
	19 Nov 2019	0066_MW209_191119	Normal	EM1919718	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	19 May 2020	0066_MW209_200519	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	25 Nov 2020	0066_MW209_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	29 Jun 2021	0066_MW209_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	01 Dec 2021	0066_MW209_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	03 May 2022	0066_MW209_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	16 Nov 2022	0066_MW209_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	25 May 2023	0066_MW209_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	05 Dec 2023	0066_MW209_231205	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	07 May 2024	0066_MW209_240507	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	MW210	20 Oct 2017	MW210_201017	Normal	568935	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1		
		07 Dec 2017	MW210_071217	Normal	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
			QC104_071217	Field_D	577093	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005		
15 Nov 2019		0066_MW210_191115	Normal	EM1919512	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
18 May 2020		0066_MW210_200518	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
MW212	25 Nov 2020	0066_MW210_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	30 Jun 2021	0066_MW210_210630	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	30 Nov 2021	0066_MW210_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	03 May 2022	0066_MW210_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	16 Nov 2022	0066_MW210_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	25 May 2023	0066_MW210_230525	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	06 Dec 2023	0066_MW210_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	09 May 2024	0066_MW210_240509	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	MW213	03 Apr 2018	MW212_LF_180403	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	65.467		
		04 Apr 2018	MW212_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	55.761		
		20 Nov 2019	0066_MW212_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	39.9		
		20 May 2020	0066_MW212_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	66.6		
		25 Nov 2020	0066_MW212_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	43.4		
		29 Jun 2021	0066_MW212_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	51.7		
		30 Nov 2021	0066_MW212_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	42.6		
03 May 2022		0066_MW212_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	46.7			
17 Nov 2022		0066_MW212_221117	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	42.0			
24 May 2023		0066_MW212_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	44.4			
04 Dec 2023		0066_MW212_231204	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	38.3			
07 May 2024		0066_MW212_240507	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	54.4			
MW214D		03 Apr 2018	MW213_LF_180403	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	19.015		
		04 Apr 2018	MW213_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	20.328		
		20 Nov 2019	0066_MW213_191120	Normal	EM1919885	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	23.5		
	20 May 2020	0066_MW213_200520	Normal	EM2008583	<0.02	<0.05															

	Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number															
MW215D	24 May 2023	0066_MW214D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.39	
	06 Dec 2023	0066_MW214D_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31	
	08 May 2024	0066_MW214D_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28	
	03 Apr 2018	MW215D_HS_180403	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	12.058	
		MW215D_LF_180403	Normal	592478	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	8.612	
	19 Nov 2019	0066_MW215D_191119	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.09	
	20 May 2020	0066_MW215_D_200529	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.66	
	25 Nov 2020	0066_MW215D_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.87	
	29 Jun 2021	0066_MW215D_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.56	
	30 Nov 2021	0066_MW215D_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.07	<0.05	<0.05	3.82	
	03 May 2022	0066_MW215D_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.40	
		0066_QC102_220503	Field_D	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.40	
		0066_QC202_220503	Interlab_D	886234	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	4.95	0.73
	16 Nov 2022	0066_MW215D_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.06	
	24 May 2023	0066_MW215D_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.93	
	06 Dec 2023	0066_MW215D_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.10	
	MW215S	08 May 2024	0066_MW215D_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.87
04 Apr 2018		MW215S_HS_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	24.4	
		MW215S_LF_180404	Normal	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	28.94	
		QC101_180404	Field_D	592478	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	26.95	
		QC201_180404	Interlab_D	EM1805793	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	26.4	
19 Nov 2019		0066_MW215S_191119	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	41.1	
20 Nov 2019		0066_MW215S_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	37.4	
20 May 2020		0066_MW215_S_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	33.5	
25 Nov 2020		0066_MW215S_201125	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	48.5	
29 Jun 2021		0066_MW215S_210629	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	57.7	
30 Nov 2021		0066_MW215S_211130	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.05	<0.05	<0.05	106	
		0066_QC102_211130	Field_D	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.05	<0.05	<0.05	110	
		0066_QC202_211130	Interlab_D	849156	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.06	<0.01	<0.01	102.46	31.6
03 May 2022		0066_MW215S_220503	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	36.1	
16 Nov 2022		0066_MW215S_221116	Normal	EM2223006	<0.04	<0.09	<0.04	<0.09	<0.09	<0.09	<0.09	<0.04	<0.04	<0.05	0.06	<0.05	<0.05	122	
24 May 2023		0066_MW215S_230524	Normal	EM2309599	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.08	<0.05	<0.05	118	
06 Dec 2023		0066_MW215S_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.06	<0.05	<0.05	126	
MW217D	08 May 2024	0066_MW215S_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.07	<0.05	<0.05	166	
	29 Mar 2018	MW217D_HS_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.064	
		MW217D_LF_180329	Normal	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.029	
		QC101_180329	Field_D	591914	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.032	
		QC201_180329	Interlab_D	EM1805570	<0.05	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	20 Nov 2019	0066_MW217_D_191120	Normal	EM1919885	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	20 May 2020	0066_MW217_D_200520	Normal	EM2008583	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02	
	26 Nov 2020	0066_MW217D_201126	Normal	EM2021043	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08	
	02 Jul 2021	0066_MW217D_210702	Normal	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
		0066_QC109_210702	Field_D	EM2112638	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
		0066_QC209_210702	Interlab_D	807707	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.01
	01 Dec 2021	0066_MW217D_211201	Normal	EM2124215	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	04 May 2022	0066_MW217D_220504	Normal	EM2208151	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	16 Nov 2022	0066_MW217D_221116	Normal	EM2223006	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05		

	Perfluorotridecanoic acid (PFTDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*
LOR	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.005	0.001	0.001	0.005	0.000001	0.001
PFAS NEMP 2.0 Table 1 Health Drinking Water																
PFAS NEMP 2.0 Table 5 Freshwater 99%																

Location Code	Date	Field ID	Sample Type	Lab Report Number															
		0066_QC201_230524	Interlab_D	993983	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01
	06 Dec 2023	0066_MW218_231206	Normal	EM2321752	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	
	08 May 2024	0066_MW218_240508	Normal	EM2407537	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01	

Notes

Denotes first time detection above LOR in latest monitoring round

Denotes new exceedance of lowest adopted screening criteria in latest monitoring round

	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Code	Date	Field ID	Sample Type	Lab Report Number																				
SW001	17 Aug 2017	SW001_180817	Normal	559306	0.039	0.018	0.239	0.042	0.037	0.2	0.002	<0.001	0.009	0.012	0.082	0.014	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.005	
	18 Nov 2019	0066_SW001_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	
	21 May 2020	0066_SW001_200521	Normal	EM2008583	0.09	<0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	26 Nov 2020	0066_SW001_201126	Normal	EM2021043	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	02 Jul 2021	0066_SW001_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	01 Dec 2021	0066_SW001_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	04 May 2022	0066_SW001_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	17 Nov 2022	0066_SW001_221117	Normal	EM2223006	0.04	<0.02	0.14	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	24 May 2023	0066_SW001_230524	Normal	EM2309600	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	06 Dec 2023	0066_SW001_231206	Normal	EM2321752	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	06 May 2024	0066_QC101_240506	Field_D	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	0066_QC201_240506	Interlab_D	1096549	<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	<0.01	<0.01	<0.01	<0.05		
	0066_SW001_240506	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
SW002	17 Aug 2017	SW002_180817	Normal	559306	0.007	0.001	0.011	0.002	<0.001	0.004	<0.001	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.005	
	20 Nov 2019	0066_SW002_191120	Normal	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	
	21 May 2020	0066_SW002_300521	Normal	EM2008583	0.16	<0.01	0.23	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	26 Nov 2020	0066_SW002_201126	Normal	EM2021043	0.07	<0.01	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	02 Jul 2021	0066_SW002_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	01 Dec 2021	0066_SW002_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	04 May 2022	0066_SW002_220504	Normal	EM2208151	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	17 Nov 2022	0066_SW002_221117	Normal	EM2223006	0.21	<0.01	0.31	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	24 May 2023	0066_SW002_230524	Normal	EM2309600	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	SW003	17 Aug 2017	SW003_180817	Normal	559306	0.017	0.005	0.03	0.002	0.001	0.013	<0.001	<0.001	0.014	0.052	0.033	0.015	0.002	<0.001	0.002	0.001	<0.001	0.001	<0.005
		14 Nov 2019	0066_SW003_191114	Normal	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.12	<0.05
21 May 2020		0066_QC104_200521	Field_D	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		0066_QC204_200521	Interlab_D	721332	<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	<0.01	<0.01	<0.05		
		0066_SW003_200521	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
26 Nov 2020		0066_SW003_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
02 Jul 2021		0066_SW003_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
02 Dec 2021		0066_SW003_211202	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
05 May 2022		0066_SW003_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
17 Nov 2022		0066_SW003_221117	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
23 May 2023		0066_SW003_230523	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
09 May 2024	0066_SW003_240509	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02			
SW004	17 Aug 2017	SW004_180817	Normal	559306	0.17	0.034	0.42	0.024	0.03	0.25	0.007	<0.001	0.006	0.009	0.059	0.011	<0.001	<0.001	0.001	0.001	<0.001	0.001	<0.005	
	14 Nov 2019	0066_SW004_191114	Normal	EM1919512	0.96	0.32	3.50	0.42	0.47	2.54	<0.05	<0.05	<0.2	0.10	0.66	0.16	<0.05	<0.05	<0.05	0.08	<0.05	<0.12	<0.05	
	21 May 2020	0066_SW004_200521	Normal	EM2008583	9.68	2.07	24.9	1.88	2.19	15.2	1.12	<0.02	0.2	0.38	2.94	0.76	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	26 Nov 2020	0066_QC102_201126	Field_D	EM2021043	0.11	<0.01	0.15	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		0066_QC202_201126	Interlab_D	760007	0.10	<0.01	0.14	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		
		0066_SW004_201126	Normal	EM2021043	0.07	<0.01	0.11																	

	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Location Code	Date	Field ID	Sample Type	Lab Report Number																			
SW007	01 Dec 2021	0066_SW006_211201	Normal	EM21124215	0.01	<0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	04 May 2022	0066_SW006_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	17 Nov 2022	0066_SW006_221117	Normal	EM2223006	0.06	<0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	24 May 2023	0066_QC105_230524	Field_D	EM2309599	0.02	<0.01	0.03	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_QC205_230524	Interlab_D	993983	0.02	<0.01	0.03	<0.01	<0.01	0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW006_230524	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	17 Aug 2017	SW007_180817	Normal	559306	0.01	0.002	0.013	<0.001	<0.001	0.003	<0.001	<0.001	<0.005	<0.001	0.003	0.002	<0.001	<0.001	<0.001	<0.001	0.001	<0.005	
	18 Nov 2019	0066_SW007_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	
	21 May 2020	0066_SW007_200521	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	26 Nov 2020	0066_SW007_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW009	02 Jul 2021	0066_QC107_210702	Field_D	EM2112638	<0.01	<0.01	<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	<0.05	<0.02	
		0066_QC207_210702	Interlab_D	807703	<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	<0.01	<0.01	<0.05	
		0066_SW007_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		16 Nov 2022	0066_SW007_221116	Normal	EM2223006	0.01	<0.01	0.03	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	24 May 2023	0066_SW007_230524	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	04 Dec 2023	0066_SW007_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	09 May 2024	0066_SW007_240509	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	17 Aug 2017	SW009_180817	Normal	559306	0.013	0.001	0.018	0.001	<0.001	0.005	<0.001	<0.001	<0.005	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	
	18 Nov 2019	0066_SW009_191118	Normal	EM1919718	0.95	<0.05	0.95	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	
	21 May 2020	0066_SW009_300521	Normal	EM2008583	0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW010	27 Nov 2020	0066_SW009_301127	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	01 Jul 2021	0066_SW009_210701	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	01 Dec 2021	0066_SW009_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	04 May 2022	0066_SW009_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	16 Nov 2022	0066_SW009_221116	Normal	EM2223006	0.01	<0.01	0.07	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	26 May 2023	0066_SW009_230526	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	05 Dec 2023	0066_SW009_231205	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	08 May 2024	0066_SW009_240508	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	17 Aug 2017	SW010_180817	Normal	559306	0.017	0.002	0.026	0.002	0.001	0.009	<0.001	<0.001	<0.005	0.002	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	
	19 Nov 2019	0066_SW010_191119	Normal	EM1919718	0.33	<0.01	0.43	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW014	21 May 2020	0066_QC105_200521	Field_D	EM2008583	0.07	0.02	0.12	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_QC205_200521	Interlab_D	721332	0.05	<0.01	0.08	<0.01	0.02	0.03	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW010_200521	Normal	EM2008583	0.06	0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		27 Nov 2020	0066_SW010_201127	Normal	EM2021043	0.54	0.02	0.69	0.02	0.02	0.15	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	02 Jul 2021	0066_QC108_210702	Field_D	EM2112638	0.04	<0.01	0.12	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_QC208_210702	Interlab_D	807707	0.07	<0.01	0.15	0.01	0.01	0.08	<0.01	<0.01	<0.05	0.04	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW010_210702	Normal	EM2112638	0.05	<0.01	0.12	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		01 Dec 2021	0066_SW010_211201	Normal	EM2124215	0.36	0.01	0.53	0.02	0.02	0.17	<0.02	<0.02	<0.1	0.05	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	04 May 2022	0066_SW010_220504	Normal	EM2208151	0.08	<0.01	0.14	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	16 Nov 2022	0066_SW010_221116	Normal	EM2223006	0.08	<0.01	0.15	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW015	26 May 2023	0066_SW010_230526	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02								

	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Location Code	Date	Field ID	Sample Type	Lab Report Number																				
	24 May 2023	0066_SW015_230524	Normal	EM2309600	1.94	0.54	3.37	0.16	0.19	1.43	0.06	<0.02	0.2	0.17	1.14	0.16	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	05 Dec 2023	0066_SW015_231205	Normal	EM2321752	2.44	0.58	3.79	0.18	0.20	1.35	0.08	<0.02	<0.1	0.20	1.02	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	09 May 2024	0066_QC107_240509	Field_D	EM2407537	2.09	0.85	3.99	0.37	0.26	1.90	0.10	<0.02	0.3	0.40	1.84	0.36	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW016		0066_QC207_240509	Interlab_D	1096549	1.2	0.57	2.5	0.21	0.24	1.3	0.05	<0.01	0.24	0.23	1.1	0.20	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW015_240509	Normal	EM2407537	1.98	0.90	3.86	0.42	0.20	1.88	0.09	<0.02	0.3	0.32	1.56	0.40	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	21 Aug 2017	Q203_170821	Interlab_D	EM1711532	3.11	0.95	4.9	0.35	0.31	1.79	0.11	<0.02	0.3	0.39	1.84	0.3	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		QC103_170821	Field_D	559967	3.9	1	6.3	0.44	0.43	2.4	0.13	<0.01	0.34	0.46	2.1	0.34	0.05	0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		SW016_170821	Normal	559967	3.4	0.9	5.5	0.4	0.38	2.1	0.12	<0.01	0.3	0.38	1.9	0.3	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
	18 Nov 2019	0066_SW016_191118	Normal	EM1919718	1.39	0.54	2.66	0.24	0.23	1.27	0.07	<0.02	0.2	0.29	1.32	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	19 May 2020	0066_SW016_200519	Normal	EM2008583	5.21	1.29	9.39	0.72	0.74	4.04	0.23	<0.02	0.4	0.56	3.14	0.51	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	26 Nov 2020	0066_SW016_201126	Normal	EM2021043	3.26	0.67	4.77	0.28	0.23	1.51	0.11	<0.02	0.2	0.22	1.02	0.22	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	30 Jun 2021	0066_SW016_210630	Normal	EM2112638	2.74	0.89	5.01	0.35	0.21	2.27	0.12	<0.02	0.2	0.31	1.42	0.28	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	30 Nov 2021	0066_SW016_211130	Normal	EM2124215	1.95	0.78	3.47	0.22	0.26	1.52	0.09	<0.02	<0.1	0.24	1.12	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	03 May 2022	0066_SW016_220503	Normal	EM2208151	5.83	1.26	8.26	0.43	0.41	2.43	0.18	0.04	<0.1	0.40	1.92	0.39	0.10	0.02	<0.02	<0.02	<0.02	<0.05	0.03	
	15 Nov 2022	0066_QC203_221115	Interlab_D	943130	1.8	0.29	2.54	0.08	0.11	0.74	0.05	<0.01	0.10	0.12	0.42	0.09	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
	16 Nov 2022	0066_QC103_221116	Field_D	EM2223006	1.71	0.27	2.40	0.11	0.10	0.69	0.04	<0.02	<0.1	0.10	0.42	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_SW016_221116	Normal	EM2223006	1.92	0.29	2.62	0.12	0.11	0.70	0.04	<0.02	<0.1	0.10	0.48	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	24 May 2023	0066_QC102_230524	Field_D	EM2309599	2.50	0.62	3.80	0.20	0.19	1.30	0.09	<0.02	<0.1	0.16	0.75	0.17	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_QC202_230524	Interlab_D	993983	3.1	0.85	4.5	0.19	0.27	1.4	0.13	<0.01	0.25	0.17	0.84	0.19	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW016_230524	Normal	EM2309600	2.76	0.62	4.10	0.16	0.18	1.34	0.10	<0.02	0.1	0.14	0.76	0.17	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	0.02	
	05 Dec 2023	0066_SW016_231205	Normal	EM2321752	3.28	0.75	4.69	0.19	0.19	1.41	0.15	<0.02	<0.1	0.13	0.76	0.21	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	0.02	
	09 May 2024	0066_SW016_240509	Normal	EM2407537	2.71	0.85	4.45	0.28	0.20	1.74	0.11	<0.02	0.2	0.20	0.91	0.24	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW017	21 Aug 2017	SW017_170821	Normal	559967	0.04	<0.01	0.06	<0.01	<0.01	0.02	<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	
	18 Nov 2019	0066_SW017_191118	Normal	EM1919718	0.49	<0.05	0.49	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	
	19 May 2020	0066_SW017_200519	Normal	EM2008583	0.05	<0.01	0.08	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	26 Nov 2020	0066_SW017_201126	Normal	EM2021043	0.28	0.06	0.51	0.06	0.05	0.23	<0.02	<0.02	<0.1	0.06	0.25	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	01 Jul 2021	0066_SW017_210701	Normal	EM2112638	0.05	<0.01	0.12	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	30 Nov 2021	0066_SW017_211130	Normal	EM2124215	0.13	0.02	0.20	0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	03 May 2022	0066_SW017_220503	Normal	EM2208151	0.04	<0.01	0.06	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	16 Nov 2022	0066_SW017_221116	Normal	EM2223006	0.07	0.02	0.12	0.03	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	24 May 2023	0066_QC103_230524	Field_D	EM2309599	0.06	<0.01	0.10	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_QC203_230524	Interlab_D	993983	0.07	<0.01	0.1	0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW017_230524	Normal	EM2309600	0.08	<0.01	0.11	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	06 Dec 2023	0066_SW017_231206	Normal	EM2321752	0.06	0.01	0.11	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	SW018	09 May 2024	0066_SW017_240509	Normal	EM2407537	0.06	0.02	0.12	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		21 Aug 2017	SW018_170821	Normal	559967	0.57	0.02	0.79	0.06	0.03	0.22	0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
18 Nov 2019		0066_SW018_191118	Normal	EM1919718	0.16	0.05	1.50	0.32	0.26	1.34	0.02	<0.02	<0.1	0.06	0.38	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
21 May 2020		0066_SW018_200521	Normal	EM2008583	0.18	0.13	3.29	1.09	0.96	3.11	0.03	<0.02	<0.1	0.16	1.32	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
27 Nov 2020		0066_SW018_201127	Normal	EM2021043	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
02 Jul 2021		0066_SW018_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
01 Dec 2021		0066_SW018_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.0.			

LOR	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Location Code	Date	Field ID	Sample Type	Lab Report Number																		
SW021	01 Jul 2021	0066_SW020_210701	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	01 Dec 2021	0066_SW020_211201	Normal	EM2124215	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	04 May 2022	0066_SW020_220504	Normal	EM2208151	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	15 Nov 2022	0066_QC208_221115	Interlab_D	943130	<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	<0.01	<0.01	<0.05
	18 Nov 2022	0066_QC108_221118	Field_D	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		0066_SW020_221118	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	26 May 2023	0066_SW020_230526	Normal	EM2309600	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	05 Dec 2023	0066_SW020_231205	Normal	EM2321752	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	07 May 2024	0066_SW020_240507	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	24 Aug 2017	QC107_170824	Field_D	560227	0.05	<0.01	0.13	<0.01	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
		QC207_170824	Interlab_D	EM1711508	0.04	<0.01	0.12	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		SW021_170824	Normal	560227	0.05	<0.01	0.13	<0.01	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
	19 Nov 2019	0066_SW021_191119	Normal	EM1919718	0.03	0.03	0.09	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
19 May 2020	0066_SW021_200519	Normal	EM2008583	0.05	<0.01	0.09	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
25 Nov 2020	0066_SW021_201125	Normal	EM2021043	0.04	0.04	0.16	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
01 Jul 2021	0066_SW021_210701	Normal	EM2112638	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
16 Nov 2022	0066_SW021_221116	Normal	EM2223006	<0.01	<0.01	0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
23 May 2023	0066_SW021_230523	Normal	EM2309600	0.06	<0.01	0.18	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
05 Dec 2023	0066_SW021_231205	Normal	EM2321752	0.06	<0.01	0.16	<0.02	<0.02	0.10	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW022	24 Aug 2017	SW022_170824	Normal	560227	<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	<0.01	<0.01	<0.05	
19 Nov 2019	0066_QC104_191119	Field_D	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	0066_QC204_191119	Interlab_D	689174	<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	<0.01	<0.01	<0.05	
	0066_SW022_191119	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
19 May 2020	0066_SW022_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
27 Nov 2020	0066_SW022_201127	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
02 Jul 2021	0066_SW022_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
01 Dec 2021	0066_QC109_211201	Field_D	EM2124215	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	0066_QC209_211201	Interlab_D	849156	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
	0066_SW022_211201	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
03 May 2022	0066_QC105_220503	Field_D	EM2208151	0.08	<0.01	0.10	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	0066_QC205_220503	Interlab_D	886234	0.05	<0.01	0.07	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
	0066_SW022_220503	Normal	EM2208151	0.07	<0.01	0.09	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
16 Nov 2022	0066_SW022_221116	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
25 May 2023	0066_SW022_230525	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
06 Dec 2023	0066_SW022_231206	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
08 May 2024	0066_SW022_240508	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW023	24 Aug 2017	SW023_170824	Normal	560227	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	<0.01	<0.01	<0.05	
18 Nov 2019	0066_SW023_191118	Normal	EM1919718	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
19 May 2020	0066_SW023_200519	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
25 Nov 2020	0066_SW023_201125	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
01 Jul 2021																						

	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Location Code	Date	Field ID	Sample Type	Lab Report Number																				
SW027	09 May 2024	0066_SW024_240509	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	28 Aug 2017	QC109_170828	Field_D	560833	0.3	<0.01	0.37	<0.01	<0.01	0.07	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		
		QC209_170828	Interlab_D	EM1711671	0.19	<0.01	0.24	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		SW027_170828	Normal	560833	0.28	<0.01	0.34	<0.01	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		
	16 Feb 2018	SW027_180216	Normal	585592	0.023	0.001	0.028	<0.001	<0.001	0.005	<0.001	<0.001	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005		
	18 Nov 2019	0066_SW027_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05		
	19 May 2020	0066_SW027_200519	Normal	EM2008583	0.74	0.02	1.08	0.02	0.05	0.34	0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	26 Nov 2020	0066_SW027_201126	Normal	EM2021043	0.06	<0.01	0.09	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	01 Jul 2021	0066_SW027_210701	Normal	EM2112638	0.15	<0.01	0.24	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	30 Nov 2021	0066_SW027_211130	Normal	EM2124215	0.12	<0.01	0.15	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	04 May 2022	0066_SW027_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	18 Nov 2022	0066_SW027_221118	Normal	EM2223006	0.15	<0.01	0.19	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	26 May 2023	0066_SW027_230526	Normal	EM2309600	0.17	<0.02	0.28	<0.02	<0.02	0.11	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	05 Dec 2023	0066_SW027_231205	Normal	EM2321752	0.13	<0.01	0.16	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		QC200_20240213	Interlab_D	EM2402166	0.06	0.01	0.12	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		SW027_20240213	Normal	EM2402166	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
			SW027_2_240320	Normal	EM2404544	0.02	<0.01	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
			SW027_3_240320	Normal	EM2404544	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	07 May 2024	0066_SW027_240507	Normal	EM2407537	0.10	<0.01	0.14	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	SW028	28 Aug 2017	SW028_170828	Normal	560833	0.32	<0.01	0.38	<0.01	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		18 Nov 2019	0066_SW028_191118	Normal	EM1919718	0.21	<0.05	0.29	<0.05	<0.05	0.08	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	
		19 May 2020	0066_SW028_200519	Normal	EM2008583	1.09	0.03	1.51	0.02	0.05	0.42	0.03	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		26 Nov 2020	0066_QC105_201126	Field_D	EM2021043	0.20	<0.01	0.26	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
			0066_QC205_201126	Interlab_D	760007	0.37	0.01	0.44	<0.01	<0.01	0.07	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
0066_SW028_201126			Normal	EM2021043	0.21	<0.01	0.28	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
01 Jul 2021		0066_QC105_210701	Field_D	EM2112638	0.19	<0.01	0.31	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		0066_QC205_210701	Interlab_D	807707	0.32	<0.01	0.44	<0.01	<0.01	0.12	<0.01	<0.01	<0.05	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		
		0066_SW028_210701	Normal	EM2112638	0.17	<0.01	0.29	<0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
30 Nov 2021		0066_QC103_211130	Field_D	EM2124215	0.04	<0.01	0.07	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
		0066_QC203_211130	Interlab_D	849156	0.08	<0.01	0.11	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		
		0066_SW028_211130	Normal	EM2124215	0.10	<0.01	0.13	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
04 May 2022		0066_SW028_220504	Normal	EM2208151	0.01	<0.01	0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
18 Nov 2022		0066_SW028_221118	Normal	EM2223006	0.13	<0.01	0.16	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
26 May 2023		0066_SW028_230526	Normal	EM2309600	0.73	0.02	1.06	0.02	0.02	0.33	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
05 Dec 2023		0066_SW028_231205	Normal	EM2321752	0.33	<0.01	0.37	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
08 May 2024		0066_SW028_240508	Normal	EM2407537	0.03	<0.01	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
SW029		28 Aug 2017	SW029_170828	Normal	560833	0.19	<0.01	0.27	<0.01	<0.01	0.08	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		19 Nov 2019	0066_SW029_191119	Normal	EM1919718	2.52	0.13	2.94	0.10	0.06	0.42	0.04	<0.02	0.2	0.40	0.65	0.12	0.06	<0.02	<0.02	<0.02	<0.05	<0.02	
		19 May 2020	0066_SW029_200519	Normal	EM2008583	18.2	0.34	19.6	0.27	0.30	1.37	0.21	0.25	0.3	0.97	1.91	0.37	0.12	0.03	0.10	<0.02	<0.05	0.10	
		26 Nov 2020	0066_SW029_201126	Normal	EM2021043	3.15	0.17	3.75	0.09	0.04	0.60	0.06	0.05	<0.1	0.44	0.62	0.13	0.06	<0.02	0.06	<0.02	0.03	<0.05	0.04
		01 Jul 2021	0066_SW029_210701	Normal	EM2112638	0.07	<0.01	0.11	0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		04 May 2022	0066_SW029_220504	Normal	EM2208151	0.08	0.01	0.10	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	0.03	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		15 Nov 2022	0066_QC205_221115	Interlab_D	943130	0.20	<0.01	0.28	0.01															

	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Location Code	Date	Field ID	Sample Type	Lab Report Number																				
		0066_QC203_201126	Interlab_D	760007	2.5	0.64	5	0.33	0.38	2.5	0.14	<0.01	0.38	0.50	2.9	0.45	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
		0066_SW057_201126	Normal	EM2021043	2.09	0.53	3.91	0.34	0.27	1.82	0.09	<0.02	0.4	0.47	2.44	0.42	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	30 Jun 2021	0066_SW057_210630	Normal	EM2112638	2.74	0.69	5.22	0.45	0.47	2.48	0.12	<0.02	0.6	0.76	3.53	0.65	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	30 Nov 2021	0066_SW057_211130	Normal	EM2124215	3.75	0.76	6.36	0.43	0.48	2.61	0.14	<0.02	0.3	0.61	3.18	0.62	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	03 May 2022	0066_SW057_220503	Normal	EM2208151	15.7	1.83	20.1	0.74	0.60	4.40	0.42	<0.03	0.4	1.01	4.85	1.01	0.13	<0.03	<0.03	<0.03	<0.03	<0.08	<0.03	
	16 Nov 2022	0066_SW057_221116	Normal	EM2223006	3.32	0.62	5.44	0.37	0.35	2.12	0.11	<0.02	0.2	0.44	2.21	0.41	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	24 May 2023	0066_SW057_230524	Normal	EM2309600	4.64	0.82	7.36	0.29	0.36	2.72	0.15	<0.02	0.4	0.40	2.98	0.38	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	05 Dec 2023	0066_QC209_231205	Interlab_D	1051767	3.9	0.87	6.9	0.32	0.52	3.0	0.19	<0.01	0.29	0.47	3.5	0.39	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
	06 Dec 2023	0066_QC109_231206	Field_D	EM2321752	2.82	0.76	5.18	0.33	0.43	2.36	0.14	<0.02	0.2	0.43	1.88	0.47	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_SW057_231206	Normal	EM2321752	2.90	0.79	5.23	0.39	0.39	2.33	0.14	<0.02	0.2	0.42	2.32	0.55	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	09 May 2024	0066_SW057_240509	Normal	EM2407537	3.65	1.03	2.48	0.50	0.53	3.09	0.15	<0.02	0.4	0.69	3.67	0.74	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	SW071	21 Nov 2019	0066_DOCK_191121	Normal	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
		21 May 2020	0066_SW071_200521	Normal	EM2008583	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		26 Nov 2020	0066_SW071_201126	Normal	EM2021043	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
02 Jul 2021		0066_SW071_210702	Normal	EM2112638	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
02 Dec 2021		0066_SW071_211202	Normal	EM2124215	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
03 May 2022		0066_QC208_220504	Interlab_D	886234	<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	<0.01	<0.01	<0.01	<0.05	
04 May 2022		0066_QC108_220504	Field_D	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_SW071_220504	Normal	EM2208151	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
17 Nov 2022		0066_SW071_221117	Normal	EM2223006	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
23 May 2023		0066_SW071_230523	Normal	EM2309600	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
04 Dec 2023		0066_SW071_231204	Normal	EM2321752	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
09 May 2024		0066_SW071_240509	Normal	EM2407537	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
SW072		21 May 2020	0066_SW072_200521	Normal	EM2008583	2.83	0.11	4.65	0.05	0.16	1.82	0.13	<0.02	<0.1	0.16	0.36	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		18 Nov 2022	0066_SW072_221118	Normal	EM2223006	1.77	0.07	2.83	0.03	0.06	1.06	0.07	<0.02	<0.1	0.10	0.18	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	26 May 2023	0066_SW072_230526	Normal	EM2309600	0.12	<0.01	0.15	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	10 May 2024	0066_SW072_240510	Normal	EM2407537	0.20	<0.01	0.25	<0.02	<0.02	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
SW073	27 Nov 2020	0066_SW073_201127	Normal	EM2021043	0.05	<0.01	0.08	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	02 Jul 2021	0066_SW073_210702	Normal	EM2112638	0.02	<0.01	0.08	<0.02	<0.02	0.06	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	01 Dec 2021	0066_SW073_211201	Normal	EM2124215	0.21	0.01	0.30	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	03 May 2022	0066_QC207_220504	Interlab_D	886234	0.48	0.06	1.32	0.24	0.17	0.84	0.02	<0.01	0.08	0.11	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
	04 May 2022	0066_QC107_220504	Field_D	EM2208151	0.38	0.05	1.08	0.23	0.13	0.70	0.02	<0.02	<0.1	0.10	0.36	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_SW073_220504	Normal	EM2208151	0.42	0.05	1.20	0.22	0.17	0.78	0.02	<0.02	<0.1	0.10	0.36	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
	16 Nov 2022	0066_SW073_221116	Normal	EM2223006	0.12	<0.01	0.21	<0.02	<0.02	0.09	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	25 May 2023	0066_SW073_230525	Normal	EM2309600	0.04	<0.01	0.11	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	04 Dec 2023	0066_SW073_231204	Normal	EM2321752	0.05	<0.01	0.07	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	08 May 2024	0066_SW073_240508	Normal	EM2407537	0.09	<0.01	0.13	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
SW074	26 Nov 2020	0066_SW074_201126	Normal	EM2021043	0.06	<0.01	0.27	<0.02	<0.02	0.21	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	02 Jul 2021	0066_SW074_210702	Normal	EM2112638	0.06	0.01	0.24	0.05	<0.02	0.18	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	01 Dec 2021	0066_SW074_211201	Normal	EM2124215	0.10	0.02	0.61	0.05	0.06	0.51	<0.02	<0.02	<0.1	0.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	04 May 2022	0066_SW074_220504	Normal	EM2208151	0.07	0.01	0.20	<0.02	<0.02	0.13	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02		
	16 Nov 2022	0066_SW074_221117	Normal	EM2223006	0.05	<0.01	0.14	<0.02	<0.02	0.09														

	Perfluorocarbons																		
	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoate (PFOA)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	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	0.001	0.001	0.001	0.005
PFAS NEMP 2.0 Table 1 Health Recreational Water		10	2																
PFAS NEMP 2.0 Table 1 Health Drinking Water		0.56	0.07																
PFAS NEMP 2.0 Table 5 Freshwater 99%	0.00023	19																	

Location Code	Date	Field ID	Sample Type	Lab Report Number																			
SW077	27 Nov 2020	0066_SW077_201127	Normal	EM2021043	0.26	0.10	2.17	0.70	0.35	1.91	0.03	<0.02	<0.1	0.10	0.74	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	02 Jul 2021	0066_SW077_210702	Normal	EM2112638	0.15	0.10	1.83	0.57	0.42	1.68	0.03	<0.02	<0.1	0.12	0.66	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	01 Dec 2021	0066_SW077_211201	Normal	EM2124215	0.13	0.10	2.45	0.71	0.65	2.32	0.03	<0.02	<0.1	0.15	0.88	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	04 May 2022	0066_SW077_220504	Normal	EM2208151	<0.01	<0.01	0.01	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	16 Nov 2022	0066_SW077_221116	Normal	EM2223006	0.22	0.04	0.84	0.12	0.09	0.62	<0.02	<0.02	<0.1	0.02	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	25 May 2023	0066_SW077_230525	Normal	EM2309600	0.05	0.01	0.21	0.03	0.02	0.16	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	04 Dec 2023	0066_SW077_231204	Normal	EM2321752	0.02	<0.01	0.10	0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	09 May 2024	0066_SW077_240509	Normal	EM2407537	0.01	<0.01	0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
SW078	26 Nov 2020	0066_SW078_201126	Normal	EM2021043	0.08	<0.01	0.15	0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	02 Jul 2021	0066_QC106_210702	Field_D	EM2112638	0.05	0.01	0.17	0.02	<0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		0066_QC206_210702	Interlab_D	807703	0.08	0.01	0.2	0.02	0.02	0.12	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
		0066_SW078_210702	Normal	EM2112638	0.06	0.01	0.18	0.02	0.02	0.12	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	02 Dec 2021	0066_SW078_211202	Normal	EM2124215	0.14	0.03	0.40	0.05	0.04	0.26	<0.02	<0.02	<0.1	0.02	0.06	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	05 May 2022	0066_SW078_220505	Normal	EM2208151	<0.01	<0.01	0.03	<0.02	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	15 Nov 2022	0066_QC204_221115	Interlab_D	943130	0.05	<0.01	0.09	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
	16 Nov 2022	0066_QC104_221116	Field_D	EM2223006	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		0066_SW078_221116	Normal	EM2223006	0.04	<0.01	0.08	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	23 May 2023	0066_SW078_230523	Normal	EM2309600	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	04 Dec 2023	0066_QC101_231204	Field_D	EM2321752	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
		0066_QC201_231204	Interlab_D	1051767	0.03	<0.01	0.05	<0.01	<0.01	0.02	<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
		0066_SW078_231204	Normal	EM2321752	0.03	<0.01	0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
	09 May 2024	0066_SW078_240509	Normal	EM2407537	0.03	<0.01	0.07	<0.02	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02
SW090	06 May 2024	0066_QC100_240506	Field_D	EM2407537	0.08	<0.01	0.16	<0.02	<0.02	0.08	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	
		0066_QC200_240506	Interlab_D	1096549	0.05	<0.01	0.09	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
		0066_SW090_240506	Normal	EM2407537	0.08	<0.01	0.15	<0.02	<0.02	0.07	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	

Notes

Denotes first time detection above LOR in latest monitoring round

Denotes new exceedance of lowest adopted screening criteria in latest monitoring round

	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE) µg/L	N-Ethyl perfluorooctane sulfonamide (EtFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) µg/L	N-Methyl perfluorooctane sulfonamide (MeFOSAA) µg/L	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) µg/L	4:2 Fluorotelomer sulfonic acid (4:2 FTS) µg/L	6:2 Fluorotelomer Sulfonate (6:2 FTS) µg/L	8:2 Fluorotelomer sulfonate (8:2 FTS) µg/L	10:2 Fluorotelomer sulfonic acid (10:2 FTS) µg/L	Sum of PFAS µg/L	Sum of US EPA PFAS (PFOS + PFOA)* mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number														
SW001	17 Aug 2017	SW001_180817		559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.456			
	18 Nov 2019	0066_SW001_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	21 May 2020	0066_SW001_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09			
	26 Nov 2020	0066_SW001_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02			
	02 Jul 2021	0066_SW001_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	01 Dec 2021	0066_SW001_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	04 May 2022	0066_SW001_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	17 Nov 2022	0066_SW001_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16			
	24 May 2023	0066_SW001_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03			
	06 Dec 2023	0066_SW001_231206	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03			
	06 May 2024	0066_QC101_240506	Field_D	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
		0066_QC201_240506	Interlab_D	1096549	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01	
0066_SW001_240506		Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01				
SW002	17 Aug 2017	SW002_180817	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.017			
	20 Nov 2019	0066_SW002_191120	Normal	EM1919885	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	21 May 2020	0066_SW002_300521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23			
	26 Nov 2020	0066_SW002_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07			
	02 Jul 2021	0066_SW002_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	01 Dec 2021	0066_SW002_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	04 May 2022	0066_SW002_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03			
	17 Nov 2022	0066_SW002_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31			
	24 May 2023	0066_SW002_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02			
	SW003	17 Aug 2017	SW003_180817	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.158		
14 Nov 2019		0066_SW003_191114	Normal	EM1919512	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06			
21 May 2020		0066_QC104_200521	Field_D	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
		0066_QC204_200521	Interlab_D	721332	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01	
		0066_SW003_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
26 Nov 2020		0066_SW003_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
02 Jul 2021		0066_SW003_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
02 Dec 2021		0066_SW003_211202	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
05 May 2022		0066_SW003_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
17 Nov 2022		0066_SW003_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
23 May 2023		0066_SW003_230523	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02			
09 May 2024		0066_SW003_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
SW004		17 Aug 2017	SW004_180817	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.603		
		14 Nov 2019	0066_SW004_191114	Normal	EM1919512	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5.71		
	21 May 2020	0066_SW004_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	36.4			
	26 Nov 2020	0066_QC102_201126	Field_D	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15			
		0066_QC202_201126	Interlab_D	760007	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.14	0.1	0.14	
		0066_SW004_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11			
	02 Jul 2021	0066_SW004_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.55			
	02 Dec 2021	0066_SW004_211202	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	28.1			
	04 May 2022	0066_SW004_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.56			
	17 Nov 2022	0066_SW004_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	9.92			
	24 May 2023	0066_SW004_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28			
	05 Dec 2023	0066_SW004_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.13			
	SW005	18 Aug 2017	QC101_170818	Field_D	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.03		
			SW005_170818	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.045		
18 Nov 2019		0066_SW005_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.10			
21 May 2020		0066_SW005_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.48			
26 Nov 2020		0066_SW005_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
30 Jun 2021		0066_SW005_210630	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
01 Dec 2021		0066_SW005_211202	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.23			
04 May 2022		0066_SW005_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
17 Nov 2022		0066_SW005_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
24 May 2023		0066_SW005_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
06 Dec 2023		0066_SW005_231206	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02									

	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE) µg/L	N-Ethyl perfluorooctane sulfonamide (EtFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) µg/L	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) µg/L	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) µg/L	4:2 Fluorotelomer sulfonic acid (4:2 FTS) µg/L	6:2 Fluorotelomer Sulfonate (6:2 FTS) µg/L	8:2 Fluorotelomer sulfonate (8:2 FTS) µg/L	10:2 Fluorotelomer sulfonic acid (10:2 FTS) µg/L	Sum of PFAS µg/L	Sum of US EPA PFAS (PFOS + PFOA)* mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number													
SW007	01 Dec 2021	0066_SW006_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	04 May 2022	0066_SW006_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	17 Nov 2022	0066_SW006_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11		
	24 May 2023	0066_QC105_230524	Field_D	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
		0066_QC205_230524	Interlab_D	993983	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.02	0.03
		0066_SW006_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02		
	17 Aug 2017	SW007_180817	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.021		
	18 Nov 2019	0066_SW007_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	21 May 2020	0066_SW007_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	26 Nov 2020	0066_SW007_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
SW009	02 Jul 2021	0066_QC107_210702	Field_D	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC207_210702	Interlab_D	807703	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
		0066_SW007_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	16 Nov 2022	0066_SW007_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	24 May 2023	0066_SW007_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02		
	04 Dec 2023	0066_SW007_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	09 May 2024	0066_SW007_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	17 Aug 2017	SW009_180817	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.023		
	18 Nov 2019	0066_SW009_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.95		
	21 May 2020	0066_SW009_300521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
27 Nov 2020	0066_SW009_301127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
01 Jul 2021	0066_SW009_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
01 Dec 2021	0066_SW009_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
04 May 2022	0066_SW009_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
16 Nov 2022	0066_SW009_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07			
26 May 2023	0066_SW009_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02			
05 Dec 2023	0066_SW009_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
08 May 2024	0066_SW009_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
SW010	17 Aug 2017	SW010_180817	Normal	559306	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.036		
	19 Nov 2019	0066_SW010_191119	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.43		
	21 May 2020	0066_QC105_200521	Field_D	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
		0066_QC205_200521	Interlab_D	721332	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.12	0.05	0.08
		0066_SW010_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14		
	27 Nov 2020	0066_SW010_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.82		
	02 Jul 2021	0066_QC108_210702	Field_D	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.18		
		0066_QC208_210702	Interlab_D	807707	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.24	0.07	0.15
		0066_SW010_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.19		
	01 Dec 2021	0066_SW010_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.69	
04 May 2022	0066_SW010_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.17			
16 Nov 2022	0066_SW010_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.17		
26 May 2023	0066_SW010_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
05 Dec 2023	0066_SW010_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.38		
08 May 2024	0066_SW010_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.21		
SW014	21 Aug 2017	SW014_170821	Normal	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	11.57		
	18 Nov 2019	0066_SW014_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	7.06		
	19 May 2020	0066_SW014_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	16.9		
	26 Nov 2020	0066_SW014_301126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	17.1		
	30 Nov 2021	0066_SW014_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	13.7		
	03 May 2022	0066_SW014_220503	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	19.6		
	16 Nov 2022	0066_SW014_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	12.0		
	24 May 2023	0066_QC104_230524	Field_D	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.6		
		0066_QC204_230524	Interlab_D	993983	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	10.83	3.74	5.84
		0066_SW014_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.5		
05 Dec 2023	0066_SW014_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	16.0		
09 May 2024	0066_SW014_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	13.9		
SW015	21 Aug 2017	SW015_170821	Normal	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	8.97		
	18 Nov 2019	0066_SW015_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	0.26	<0.05	<0.05	<0.05	<0.05	<0.05	64.4		
	19 May 2020	0066_SW015_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	19.4		
	26 Nov 2020	0066_SW015_2011															

	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE) ug/L	N-Ethyl perfluorooctane sulfonamide (EtFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) µg/L	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) µg/L	4:2 Fluorotelomer sulfonic acid (4:2 FTS) µg/L	6:2 Fluorotelomer Sulfonate (6:2 FTS) µg/L	8:2 Fluorotelomer sulfonate (8:2 FTS) µg/L	10:2 Fluorotelomer sulfonic acid (10:2 FTS) µg/L	Sum of PFAS µg/L	Sum of US EPA PFAS (PFOS + PFOA)* mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number														
	24 May 2023	0066_SW015_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.02			
	05 Dec 2023	0066_SW015_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.28			
	09 May 2024	0066_QC107_240509	Field_D	EM2407537	<0.05	<0.05	<0.05	<0.05	0.03	<0.02	<0.05	<0.05	<0.05	<0.05	8.67			
		0066_QC207_240509	Interlab_D	1096549	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	5.41	1.77	3.07	
SW016	21 Aug 2017	0066_SW015_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	0.03	<0.02	<0.05	<0.05	<0.05	<0.05	8.37			
		Q203_170821	Interlab_D	EM1711532	<0.05	<0.05	<0.05	<0.05	0.12	<0.02	<0.05	<0.05	<0.05	<0.05	9.61			
		QC103_170821	Field_D	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	11.6			
		SW016_170821	Normal	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	10.22			
	18 Nov 2019	0066_SW016_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.75			
	19 May 2020	0066_SW016_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	0.14	<0.02	<0.05	<0.05	<0.05	<0.05	17.0			
	26 Nov 2020	0066_SW016_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	0.05	<0.02	<0.05	<0.05	<0.05	<0.05	7.82			
	30 Jun 2021	0066_SW016_210630	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	0.06	<0.02	<0.05	<0.05	<0.05	<0.05	8.89			
	30 Nov 2021	0066_SW016_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	6.45			
	03 May 2022	0066_SW016_220503	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	0.64	0.06	<0.05	<0.05	<0.05	<0.05	14.1			
	15 Nov 2022	0066_QC203_221115	Interlab_D	943130	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	3.84	2.09	2.83	
	16 Nov 2022	0066_QC103_221116	Field_D	EM2223006	<0.05	<0.05	<0.05	<0.05	0.04	<0.02	<0.05	<0.05	<0.05	<0.05	3.56			
		0066_SW016_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	0.06	<0.02	<0.05	<0.05	<0.05	<0.05	3.92			
	24 May 2023	0066_QC102_230524	Field_D	EM2309599	<0.05	<0.05	<0.05	<0.05	0.16	<0.02	<0.05	<0.05	<0.05	<0.05	6.18			
		0066_QC202_230524	Interlab_D	993983	<0.05	<0.05	<0.05	<0.05	0.10	<0.05	<0.01	<0.05	<0.01	<0.01	7.6	3.95	5.35	
		0066_SW016_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	0.16	<0.02	<0.05	<0.05	<0.05	<0.05	6.55			
	05 Dec 2023	0066_SW016_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	0.12	<0.02	<0.05	<0.05	<0.05	<0.05	7.27			
	09 May 2024	0066_SW016_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	0.07	<0.02	<0.05	<0.05	<0.05	<0.05	7.66			
	SW017	21 Aug 2017	SW017_170821	Normal	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1		
18 Nov 2019		0066_SW017_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.49			
19 May 2020		0066_SW017_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10			
26 Nov 2020		0066_SW017_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.04			
01 Jul 2021		0066_SW017_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15			
30 Nov 2021		0066_SW017_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31			
03 May 2022		0066_SW017_220503	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
16 Nov 2022		0066_SW017_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23			
24 May 2023		0066_QC103_230524	Field_D	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10			
		0066_QC203_230524	Interlab_D	993983	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.13	0.07	0.1	
		0066_SW017_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11			
06 Dec 2023		0066_SW017_231206	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16			
SW018		09 May 2024	0066_SW017_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.20		
		21 Aug 2017	SW018_170821	Normal	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.97		
	18 Nov 2019	0066_SW018_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.64			
	21 May 2020	0066_SW018_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	7.18			
	27 Nov 2020	0066_SW018_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	02 Jul 2021	0066_SW018_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	01 Dec 2021	0066_SW018_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	05 May 2022	0066_SW018_220505	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	16 Nov 2022	0066_SW018_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.14			
	26 May 2023	0066_SW018_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	04 Dec 2023	0066_SW018_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10			
	09 May 2024	0066_SW018_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
	SW019	21 Aug 2017	Q205_170821	Interlab_D	EM1711532	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.23		
			QC105_170821	Field_D	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	3.72		
SW019_170821			Normal	559967	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	3.82			
18 Nov 2019		0066_SW019_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	8.25			
21 May 2020		0066_SW019_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02			
26 Nov 2020		0066_SW019_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16			
30 Jun 2021		0066_SW019_210630	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01			
30 Nov 2021		0066_SW019_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.06			
04 May 2022		0066_SW019_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08			
16 Nov 2022		0066_SW019_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.33			
25 May 2023		0066_SW019_230525	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10			
04 Dec 2023		0066_SW019_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05					

	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE) µg/L	N-Ethyl perfluorooctane sulfonamide (EtFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) µg/L	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) µg/L	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) µg/L	4:2 Fluorotelomer sulfonic acid (4:2 FTS) µg/L	6:2 Fluorotelomer Sulfonate (6:2 FTS) µg/L	8:2 Fluorotelomer sulfonate (8:2 FTS) µg/L	10:2 Fluorotelomer sulfonic acid (10:2 FTS) µg/L	Sum of PFAS µg/L	Sum of US EPA PFAS (PFOS + PFOA)* mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number													
	01 Jul 2021	0066_SW020_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	01 Dec 2021	0066_SW020_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
	04 May 2022	0066_SW020_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	15 Nov 2022	0066_QC208_221115	Interlab_D	943130	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
	18 Nov 2022	0066_QC108_221118	Field_D	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_SW020_221118	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	26 May 2023	0066_SW020_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02		
	05 Dec 2023	0066_SW020_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	07 May 2024	0066_SW020_240507	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	SW021	24 Aug 2017	QC107_170824	Field_D	560227	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15	
QC207_170824			Interlab_D	EM1711508	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
SW021_170824			Normal	560227	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.15		
19 Nov 2019		0066_SW021_191119	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.12		
19 May 2020		0066_SW021_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09		
25 Nov 2020		0066_SW021_201125	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.20		
01 Jul 2021		0066_SW021_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
16 Nov 2022		0066_SW021_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
23 May 2023		0066_SW021_230523	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.18		
05 Dec 2023		0066_SW021_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
SW022	24 Aug 2017	SW022_170824	Normal	560227	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1		
	19 Nov 2019	0066_QC104_191119	Field_D	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC204_191119	Interlab_D	689174	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
		0066_SW022_191119	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	19 May 2020	0066_SW022_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	27 Nov 2020	0066_SW022_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	02 Jul 2021	0066_SW022_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	01 Dec 2021	0066_QC109_211201	Field_D	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
		0066_QC209_211201	Interlab_D	849156	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.02	0.02
		0066_SW022_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	03 May 2022	0066_QC105_220503	Field_D	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10		
		0066_QC205_220503	Interlab_D	886234	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.05	0.07
		0066_SW022_220503	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09		
	16 Nov 2022	0066_SW022_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 May 2023	0066_SW022_230525	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	06 Dec 2023	0066_SW022_231206	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	08 May 2024	0066_SW022_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
SW023	24 Aug 2017	SW023_170824	Normal	560227	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1		
	18 Nov 2019	0066_SW023_191118	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	19 May 2020	0066_SW023_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 Nov 2020	0066_SW023_201125	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	01 Jul 2021	0066_SW023_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	30 Nov 2021	0066_QC105_211130	Field_D	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
		0066_QC205_211130	Interlab_D	849156	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.04	0.04
		0066_SW023_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	03 May 2022	0066_QC106_220503	Field_D	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_QC206_220503	Interlab_D	886234	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
		0066_SW023_220503	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	16 Nov 2022	0066_SW023_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	25 May 2023	0066_SW023_230525	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	05 Dec 2023	0066_SW023_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
	09 May 2024	0066_SW023_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
SW024	24 Aug 2017	SW024_170824	Normal	560227	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1		
	19 Nov 2019	0066_SW024_191119	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	19 May 2020	0066_SW024_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	26 Nov 2020	0066_SW024_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	01 Jul 2021	0066_SW024_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	30 Nov 2021	0066_QC104_211130	Field_D	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
		0066_QC204_211130	Interlab_D	849156	<0.05	<0.05	<0.05	<0.05	<0.05	<0.							

	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE) µg/L	N-Ethyl perfluorooctane sulfonamide (EtFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) µg/L	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) µg/L	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) µg/L	4:2 Fluorotelomer sulfonic acid (4:2 FTS) µg/L	6:2 Fluorotelomer Sulfonate (6:2 FTS) µg/L	8:2 Fluorotelomer sulfonate (8:2 FTS) µg/L	10:2 Fluorotelomer sulfonic acid (10:2 FTS) µg/L	Sum of PFAS µg/L	Sum of US EPA PFAS (PFOS + PFOA)* mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number													
SW027	09 May 2024	0066_SW024_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	28 Aug 2017	QC109_170828	Field_D	560833	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.38		
		QC209_170828	Interlab_D	EM1711671	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24		
		SW027_170828	Normal	560833	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.34		
	16 Feb 2018	SW027_180216	Normal	585592	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	0.03		
	18 Nov 2019	0066_SW027_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	19 May 2020	0066_SW027_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.25		
	26 Nov 2020	0066_SW027_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09		
	01 Jul 2021	0066_SW027_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.24		
	30 Nov 2021	0066_SW027_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15		
	04 May 2022	0066_SW027_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	18 Nov 2022	0066_SW027_221118	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.19		
	26 May 2023	0066_SW027_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28		
	05 Dec 2023	0066_SW027_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
		QC200_20240213	Interlab_D	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.21		
		SW027_20240213	Normal	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		SW027_2_240320	Normal	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
		SW027_3_240320	Normal	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
	07 May 2024	0066_SW027_240507	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14		
SW028	28 Aug 2017	SW028_170828	Normal	560833	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.38		
	18 Nov 2019	0066_SW028_191118	Normal	EM1919718	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.29		
	19 May 2020	0066_SW028_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.70		
	26 Nov 2020	0066_QC105_201126	Field_D	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.26		
		0066_QC205_201126	Interlab_D	760007	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.47	0.38	0.45
		0066_SW028_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.28		
	01 Jul 2021	0066_QC105_210701	Field_D	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31		
		0066_QC205_210701	Interlab_D	807707	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.47	0.32	0.44
		0066_SW028_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29		
	30 Nov 2021	0066_QC103_211130	Field_D	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
		0066_QC203_211130	Interlab_D	849156	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.11	0.08	0.11
		0066_SW028_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13		
	04 May 2022	0066_SW028_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	18 Nov 2022	0066_SW028_221118	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
	26 May 2023	0066_SW028_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.15		
	05 Dec 2023	0066_SW028_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.37		
	08 May 2024	0066_SW028_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	SW029	28 Aug 2017	SW029_170828	Normal	560833	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.28	
19 Nov 2019		0066_SW029_191119	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	2.08	0.28	<0.05	7.06		
19 May 2020		0066_SW029_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	4.18	0.89	<0.05	29.9		
26 Nov 2020		0066_SW029_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	1.34	0.20	0.05	7.13		
01 Jul 2021		0066_SW029_210701	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13		
04 May 2022		0066_SW029_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
15 Nov 2022		0066_QC205_221115	Interlab_D	943130	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.06	<0.01	<0.01	0.47	0.2	0.28
17 Nov 2022		0066_QC105_221117	Field_D	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.35		
		0066_SW029_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.39		
29 May 2023		0066_SW029_230529	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.14	<0.05	<0.05	1.29		
04 Dec 2023		0066_QC105_231204	Field_D	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.23	0.08	<0.05	1.04		
		0066_QC205_231204	Interlab_D	1051767	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.21	0.05	<0.01	1.03	0.41	0.51
		0066_SW029_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.24	0.06	<0.05	1.11		
10 May 2024		0066_SW029_240510	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.32		
SW030	28 Aug 2017	SW030_170828	Normal	560833	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.27		
	19 Nov 2019	0066_SW030_191119	Normal	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	19 May 2020	0066_SW030_200519	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.49		
	26 Nov 2020	0066_SW030_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.07	<0.05	<0.05	0.33		
	02 Jul 2021	0066_SW030_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	0.18	<0.05	<0.05	1.48		
	04 May 2022	0066_SW030_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.27		
	17 Nov 2022	0066_SW030_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.33		
	29 May 2023	0066_SW030_230529	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13		
	10 May 2024	0066_SW030_240510	Normal	EM2407537	<0.05	<0.05											

	N-Methyl perfluorooctane sulfonamide (MeFOSA) µg/L	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE) µg/L	N-Ethyl perfluorooctane sulfonamide (EtFOSA) µg/L	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) µg/L	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) µg/L	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) µg/L	4:2 Fluorotelomer sulfonic acid (4:2 FTS) µg/L	6:2 Fluorotelomer Sulfonate (6:2 FTS) µg/L	8:2 Fluorotelomer sulfonate (8:2 FTS) µg/L	10:2 Fluorotelomer sulfonic acid (10:2 FTS) µg/L	Sum of PFAS µg/L	Sum of US EPA PFAS (PFOS + PFOA)* mg/kg	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number													
		0066_QC203_201126	Interlab_D	760007	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	10.81	3.14	5.64
		0066_SW057_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	8.87		
	30 Jun 2021	0066_SW057_210630	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	12.5		
	30 Nov 2021	0066_SW057_211130	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	12.9		
	03 May 2022	0066_SW057_220503	Normal	EM2208151	<0.08	<0.08	<0.08	<0.08	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	31.1		
	16 Nov 2022	0066_SW057_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.2		
	24 May 2023	0066_SW057_230524	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	13.2		
	05 Dec 2023	0066_QC209_231205	Interlab_D	1051767	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	13.56	4.77	7.77
	06 Dec 2023	0066_QC109_231206	Field_D	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	9.84		
		0066_SW057_231206	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	10.5		
	09 May 2024	0066_SW057_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	8.16		
	21 Nov 2019	0066_DOCK_191121	Normal	EM1919885	<0.12	<0.12	<0.12	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	21 May 2020	0066_SW071_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	26 Nov 2020	0066_SW071_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	02 Jul 2021	0066_SW071_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	02 Dec 2021	0066_SW071_211202	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	03 May 2022	0066_QC208_220504	Interlab_D	886234	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	<0.01	<0.01
	04 May 2022	0066_QC108_220504	Field_D	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
		0066_SW071_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	17 Nov 2022	0066_SW071_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	23 May 2023	0066_SW071_230523	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	04 Dec 2023	0066_SW071_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	09 May 2024	0066_SW071_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.01		
	21 May 2020	0066_SW072_200521	Normal	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.70		
	18 Nov 2022	0066_SW072_221118	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.38		
	26 May 2023	0066_SW072_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15		
	10 May 2024	0066_SW072_240510	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.25		
		27 Nov 2020	0066_SW073_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08	
02 Jul 2021		0066_SW073_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10		
01 Dec 2021		0066_SW073_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.31		
03 May 2022		0066_QC207_220504	Interlab_D	886234	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	2.59	0.54	1.38
04 May 2022		0066_QC107_220504	Field_D	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.01		
		0066_SW073_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	2.16		
16 Nov 2022		0066_SW073_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.21		
25 May 2023		0066_SW073_230525	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.11		
04 Dec 2023		0066_SW073_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
08 May 2024		0066_SW073_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13		
26 Nov 2020		0066_SW074_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.29		
02 Jul 2021		0066_SW074_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.33		
01 Dec 2021		0066_SW074_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.88		
04 May 2022		0066_SW074_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23		
	16 Nov 2022	0066_SW074_221117	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14		
	25 May 2023	0066_SW074_230525	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.38		
	04 Dec 2023	0066_SW074_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.13		
	08 May 2024	0066_SW074_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14		
	27 Nov 2020	0066_SW075_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
	02 Jul 2021	0066_SW075_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
	01 Dec 2021	0066_SW075_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
	04 May 2022	0066_SW075_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
	16 Nov 2022	0066_SW075_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
	26 May 2023	0066_SW075_230526	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	05 Dec 2023	0066_QC107_231205	Field_D	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.10		
		0066_QC207_231205	Interlab_D	1051767	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.06	0.08
		0066_SW075_231205	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.09		
	08 May 2024	0066_SW075_240508	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	27 Nov 2020	0066_SW076_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
	01 Jul 2021	0066_SW076_210701	Normal	EM2112638	<0.05	<0.05	<0										

	N-Methyl perfluorooctane sulfonamide (MeFOSA)	2-(N-methylperfluoro-1- octane sulfonamido)- ethanol (N-MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonate (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA) *	Sum of enHealth PFAS (PFHxS + PFOS + PFOA) *
	µg/L	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/kg	ug/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.01	0.01
PFAS NEMP 2.0 Table 1 Health Recreational Water													
PFAS NEMP 2.0 Table 1 Health Drinking Water													
PFAS NEMP 2.0 Table 5 Freshwater 99%													

Location Code	Date	Field ID	Sample Type	Lab Report Number													
SW077	27 Nov 2020	0066_SW077_201127	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	4.29		
	02 Jul 2021	0066_SW077_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	3.86		
	01 Dec 2021	0066_SW077_211201	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	5.12		
	04 May 2022	0066_SW077_220504	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.01		
	16 Nov 2022	0066_SW077_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	1.24		
	25 May 2023	0066_SW077_230525	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.32		
	04 Dec 2023	0066_SW077_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.14		
	09 May 2024	0066_SW077_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.02		
SW078	26 Nov 2020	0066_SW078_201126	Normal	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.19		
	02 Jul 2021	0066_QC106_210702	Field_D	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.23		
		0066_QC206_210702	Interlab_D	807703	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.29	0.09	0.21
		0066_SW078_210702	Normal	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.26		
	02 Dec 2021	0066_SW078_211202	Normal	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.62		
	05 May 2022	0066_SW078_220505	Normal	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.03		
	15 Nov 2022	0066_QC204_221115	Interlab_D	943130	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	0.13	0.05	0.09
	16 Nov 2022	0066_QC104_221116	Field_D	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
		0066_SW078_221116	Normal	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.08		
	23 May 2023	0066_SW078_230523	Normal	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
	04 Dec 2023	0066_QC101_231204	Field_D	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
		0066_QC201_231204	Interlab_D	1051767	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.03	0.05
		0066_SW078_231204	Normal	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.05		
	09 May 2024	0066_SW078_240509	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.07		
SW090	06 May 2024	0066_QC100_240506	Field_D	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.16		
		0066_QC200_240506	Interlab_D	1096549	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.1	0.05	0.09
		0066_SW090_240506	Normal	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	0.15		

Notes

Denotes first time detection above LOR in latest monitoring round

Denotes new exceedance of lowest adopted screening criteria in latest monitoring round

Lab Report Number			EM2407537		RPD	EM2407537		RPD	EM2407537		RPD
Field ID	Date	Date	0066_SW090_240506	0066_QC100_240506		0066_SW090_240506	0066_QC200_240506		0066_SW001_240506	0066_QC101_240506	
			06 May 2024	06 May 2024		06 May 2024	06 May 2024		06 May 2024	06 May 2024	
	Unit	LOR									
Perfluorocarbons											
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.08	0.08	0	0.08	0.05	46	<0.01	<0.01	0
Perfluorooctanoate (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
Sum of PFHxS and PFOS	µg/L	0.01	0.15	0.16	6	0.15	0.09	50	<0.01	<0.01	0
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<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	<0.02	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.07	0.08	13	0.07	0.04	55	<0.01	<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
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	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	<0.02	0
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.01					<0.01				
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	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
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<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	<0.02	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.01	<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	<0.05	0
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.02	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
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<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
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
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
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
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
8:2 Fluorotelomer sulfonate (8:2 FTS)	µg/L	0.01	<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	<0.05	0
Sum of PFAS	µg/L	0.01	0.15	0.16	6	0.15	<0.1	40	<0.01	<0.01	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.01					0.05				
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	0.01					0.09				

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 81 (1 - 10 x LOR); 50 (10 - 30 x LOR); 30 (> 30 x LOR))
***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

Lab Report Number			EM2407537	1096549		EM2407537			EM2407537	1096549		EM2407537		
Field ID			0066_SW001_240506	0066_QC201_240506		0066_MW207_240507	0066_QC102_240507		0066_MW207_240507	0066_QC202_240507		0066_MW067_240508	0066_QC103_240508	
Date			06 May 2024	06 May 2024	RPD	07 May 2024	07 May 2024	RPD	07 May 2024	07 May 2024	RPD	08 May 2024	08 May 2024	RPD
	Unit	LOR												
Perfluorocarbons														
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	5.34	4.49	17
Perfluorooctanoate (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	2.63	2.43	8
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	80.8	81.9	1
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	2.70	2.58	5
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	5.11	5.69	11
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	75.5	77.4	2
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	1.16	1.10	5
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
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0	1.0	0.9	11
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	2.24	2.06	8
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	12.2	12.1	1
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.01		<0.01						<0.01				
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0	1.71	1.65	4
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
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
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
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
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
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
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
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
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/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 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 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 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
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
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
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 sulfonate (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
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
Sum of PFAS	µg/L	0.01	<0.01	<0.1	0	<0.01	<0.01	0	<0.01	<0.1	0	111	111	0
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.01		<0.01						<0.01				
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	0.01		<0.01						<0.01				

*RPDs have only been considered where a concentration is greater than 1 times the L
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for ea
***Interlab Duplicates are matched on a per compound basis as methods vary betwee

Lab Report Number Field ID Date			EM2407537		1096549			EM2407537			EM2407537		1096549			EM2407537		1096549				
			0066_MW067_240508		0066_QC203_240508			0066_MW063_240508			0066_QC104_240508		0066_MW061_240508			0066_QC105_240508		0066_MW061_240508			0066_QC205_240508	
			08 May 2024		08 May 2024			08 May 2024			08 May 2024		08 May 2024			08 May 2024		08 May 2024			08 May 2024	
	Unit	LOR	RPD																			
Perfluorocarbons																						
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	5.34	4.2	24	<0.01	<0.01	0	<0.01	<0.01	0	0.07	0.06	15	0.07	0.04	55					
Perfluorooctanoate (PFOA)	µg/L	0.01	2.63	2.4	9	<0.01	<0.01	0	<0.01	<0.01	0	0.03	0.03	0	0.03	0.01	100					
Sum of PFHxS and PFOS	µg/L	0.01	80.8	77.2	5	0.03	0.03	0	0.03	0.02	40	0.32	0.30	6	0.32	0.19	51					
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	2.70	2.3	16	<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	5.11	4.3	17	<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	75.5	73	3	0.03	0.03	0	0.03	0.02	40	0.25	0.24	4	0.25	0.15	50					
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	1.16	0.73	46	<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					
Perfluorobutanoic acid (PFBA)	µg/L	0.05	1.0	0.68	38	<0.1	<0.1	0	<0.1	<0.05	0	<0.1	<0.1	0	<0.1	<0.05	0					
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	2.24	2.1	6	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.02	0	<0.02	<0.01	0					
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	12.2	12	2	<0.02	<0.02	0	<0.02	<0.01	0	0.04	0.03	29	0.04	0.02	67					
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.01		0.89						<0.01						<0.01						
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	1.71	1.0	52	<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					
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					
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					
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					
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					
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					
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					
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					
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/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					
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					
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					
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					
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					
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					
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					
8:2 Fluorotelomer sulfonate (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					
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					
Sum of PFAS	µg/L	0.01	111	103.6	7	0.03	0.03	0	0.03	<0.1	0	0.39	0.36	8	0.39	0.23	52					
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.01		6.6						<0.01						0.05						
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	0.01		79.6						0.02						0.2						

*RPDs have only been considered where a concentration is greater than 1 times the L
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for ea
***Interlab Duplicates are matched on a per compound basis as methods vary between

Lab Report Number Field ID			EM2407537		RPD	EM2407537	1096549	RPD	EM2407537		RPD	EM2407537	1096549	RPD
			0066_MW112_240508	0066_QC106_240508		0066_MW112_240508	0066_QC206_240508		0066_SW015_240509	0066_QC107_240509		0066_SW015_240509	0066_QC207_240509	
Date			08 May 2024	08 May 2024		08 May 2024	08 May 2024		09 May 2024	09 May 2024		09 May 2024	09 May 2024	
	Unit	LOR												
Perfluorocarbons														
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	1.98	2.09	5	1.98	1.2	49
Perfluorooctanoate (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	0.90	0.85	6	0.90	0.57	45
Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	3.86	3.99	3	3.86	2.5	43
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.42	0.37	13	0.42	0.21	67
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.20	0.26	26	0.20	0.24	18
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	1.88	1.90	1	1.88	1.3	36
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.09	0.10	11	0.09	0.05	57
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
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	0.3	0.3	0	0.3	0.24	22
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.32	0.40	22	0.32	0.23	33
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	1.56	1.84	16	1.56	1.1	35
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.01					<0.01						0.05	
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.40	0.36	11	0.40	0.20	67
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	0.04	0.03	29	0.04	0.02	67
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
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
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
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
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
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
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
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/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 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 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 sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	0.03	0.03	0	0.03	<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
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 sulfonate (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
Sum of PFAS	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.1	0	8.37	8.67	4	8.37	5.41	43
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.01					<0.01						1.77	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	0.01					<0.01						3.07	

*RPDs have only been considered where a concentration is greater than 1 times the L
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for ea
***Interlab Duplicates are matched on a per compound basis as methods vary betwe

Lab Report Number			1096549	EM2407537						
Field ID			0066_QC502_240509	0066_QC300_240506	0066_QC302_240507	0066_QC304_240508	0066_QC306_240509	0066_QC308_240510	0066_QC500_240509	0066_QC501_240509
Sample Type			Trip_B	Rinsate	Rinsate	Rinsate	Rinsate	Rinsate	Trip_B	Trip_B
Date			09 May 2024	09 May 2024	09 May 2024	09 May 2024	09 May 2024	10 May 2024	09 May 2024	09 May 2024
	Unit	LOR								
Perfluorocarbons										
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoate (PFOA)	µg/L	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
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	<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	<0.02	<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
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<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	<0.02
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.01	<0.02	<0.02	<0.02	<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	<0.02	<0.02	<0.02
Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.01	<0.01							
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<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	<0.02
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<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	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<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	<0.05
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
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
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
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 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 sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
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
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
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 sulfonate (8:2 FtS)	µg/L	0.01	<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	<0.05
Sum of PFAS	µg/L	0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.01	<0.01							
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	0.01	<0.01							

APPENDIX

C

LABORATORY CERTIFICATES



Telephone : + 61-3-8549 9600

Custody Document for Submissions via ALS Compass App

Project: 30 4300114 Client: STANTEC Project Manager: _____
ALS Compass COC Reference: 67046 # Samples: _____ Phone: (_____)
Sampler: _____
Phone: (_____)

Turnaround Requirements: Standard _____ Urgent _____

Special Instructions:

ALS Use Only

Custody seal intact?	YES	NO	N/A
Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
Random sample temperature on receipt?		°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
Date / Time:	Date / Time:	Date / Time:	Date / Time:
	 10/5, 1530		



ALS Laboratory: EM Melbourne
Environmental

RECEIVED BY:

DATE TIME:

EMAIL INVOICES TO:

Biohazard info:

Other comments:

1 of 22



CHAIN OF CUSTODY

COC#: 67046

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

DATE TIME:

DATE TIME:

DATE TIME:

DATE TIME:

CLIENT: MWHHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_24

SITE: Onsite

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: SY/139/19_Laverton

SAMPLER MOBILE:

/ EM2023MWHHAUS000
2

EMAIL REPORTS TO:

EMAIL INVOICES TO:

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:

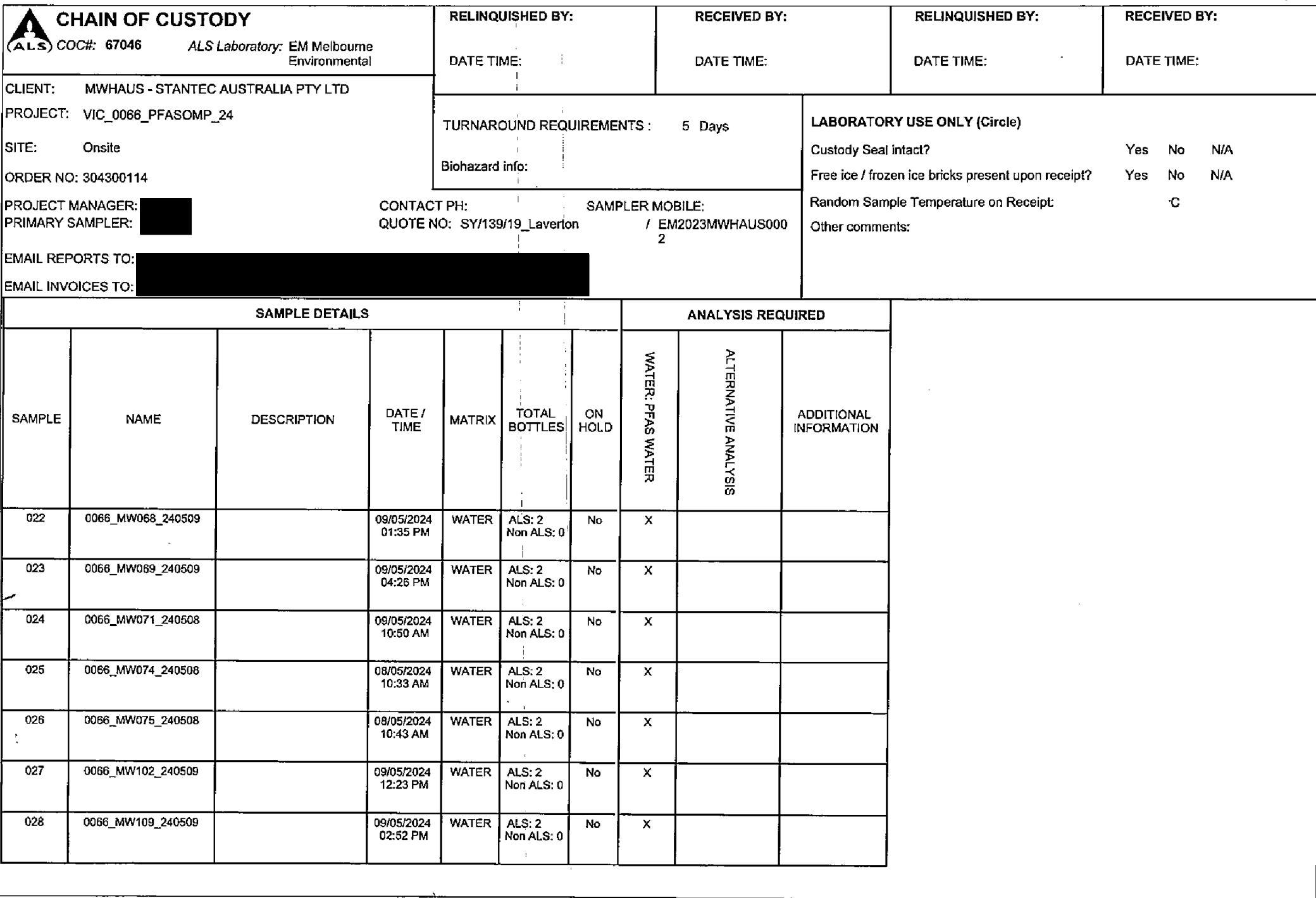
SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0066_MW030_240508		08/05/2024 02:03 PM	WATER	ALS: 2 Non ALS: 0	No	X		
009	0066_MW033_240509		09/05/2024 02:07 PM	WATER	ALS: 2 Non ALS: 0	No	X		
010	0066_MW034_240509		09/05/2024 02:11 PM	WATER	ALS: 2 Non ALS: 0	No	X		
011	0066_MW036_240509		09/05/2024 01:22 PM	WATER	ALS: 2 Non ALS: 0	No	X		
012	0066_MW041_240509		09/05/2024 01:11 PM	WATER	ALS: 2 Non ALS: 0	No	X		
013	0066_MW043_240508		08/05/2024 02:05 PM	WATER	ALS: 6 Non ALS: 0	No	X		internal lab, QC
014	0066_MW046_240509		09/05/2024 02:54 PM	WATER	ALS: 2 Non ALS: 0	No	X		

 CHAIN OF CUSTODY COC#: 67046 ALS Laboratory: EM Melbourne Environmental		RELINQUISHED BY: DATE TIME:	RECEIVED BY: DATE TIME:	RELINQUISHED BY: DATE TIME:	RECEIVED BY: DATE TIME:
CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD PROJECT: VIC_0066_PFASOMP_24 SITE: Onsite ORDER NO: 304300114 PROJECT MANAGER: [REDACTED] PRIMARY SAMPLER: [REDACTED] 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:	
CONTACT PH: SAMPLER MOBILE: QUOTE NO: SY/139/19_Laverion / EM2023MWHAUS0002					

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0066_MW051_240509		09/05/2024 04:18 PM	WATER	ALS: 2 Non ALS: 0	No	X		
016	0066_MW054_240509		09/05/2024 02:32 PM	WATER	ALS: 2 Non ALS: 0	No	X		
017	0066_MW061_240508		08/05/2024 01:38 PM	WATER	ALS: 2 Non ALS: 0	No	X		
018	0066_MW062_240508		08/05/2024 01:51 PM	WATER	ALS: 6 Non ALS: 0	No	X		internal lab QC
019	0066_MW063_240508		08/05/2024 11:26 AM	WATER	ALS: 2 Non ALS: 0	No	X		
020	0066_MW064_240508		08/05/2024 11:49 AM	WATER	ALS: 6 Non ALS: 0	No	X		internal lab QC
021	0066_MW067_240508		08/05/2024 10:25 AM	WATER	ALS: 2 Non ALS: 0	No	X		





ALS Laboratory: EM Melbourne
Environmental

RECEIVED BY:

DATE TIME:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
036	0066_MW204_240508		08/05/2024 12:22 PM	WATER	ALS: 2 Non ALS: 0	No	X		
037	0066_MW206_240508		08/05/2024 11:48 AM	WATER	ALS: 2 Non ALS: 0	No	X		
038	0066_MW207_240507		07/05/2024 02:45 PM	WATER	ALS: 2 Non ALS: 0	No	X		
039	0066_MW208_240507		07/05/2024 02:58 PM	WATER	ALS: 6 Non ALS: 0	No	X		internal Lab QC
040	0066_MW209_240507		07/05/2024 03:12 PM	WATER	ALS: 2 Non ALS: 0	No	X		
041	0066_MW210_240509		09/05/2024 01:43 PM	WATER	ALS: 2 Non ALS: 0	No	X		
042	0066_MW212_240507		07/05/2024 10:30 AM	WATER	ALS: 2 Non ALS: 0	No	X		

 CHAIN OF CUSTODY COC#: 67046 ALS Laboratory: EM Melbourne Environmental		RELINQUISHED BY: DATE TIME:	RECEIVED BY: DATE TIME:	RELINQUISHED BY: DATE TIME:	RECEIVED BY: DATE TIME:
CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD PROJECT: VIC_0066_PFASOMP_24 SITE: Onsite ORDER NO: 304300114 PROJECT MANAGER: [REDACTED] PRIMARY SAMPLER: [REDACTED] 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:	
CONTACT PH: SAMPLER MOBILE: QUOTE NO: SY/139/19_Laverton / EM2023MWHAUS0002					

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	WATER PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
043	0066_MW213_240507		07/05/2024 10:29 AM	WATER	ALS: 2 Non ALS: 0	No	X		
044	0066_MW214D_24050		08/05/2024 09:41 AM	WATER	ALS: 2 Non ALS: 0	No	X		
045	0066_MW215D_240508		08/05/2024 10:06 AM	WATER	ALS: 2 Non ALS: 0	No	X		
046	0066_MW215S_240508		08/05/2024 09:54 AM	WATER	ALS: 2 Non ALS: 0	No	X		
047	0066_MW217D_240508		08/05/2024 03:15 PM	WATER	ALS: 6 Non ALS: 0	No	X		Internal lab qc
048	0066_MW218_240508		08/05/2024 03:29 PM	WATER	ALS: 2 Non ALS: 0	No	X		
049	0066_SW001_240506		06/05/2024 03:13 PM	WATER	ALS: 2 Non ALS: 0	No	X		


CHAIN OF CUSTODY
 (ALS) COC#: 67046 ALS Laboratory: EM Melbourne Environmental

RELINQUISHED BY:

 DATE TIME:

RECEIVED BY:

 DATE TIME:

RELINQUISHED BY:

 DATE TIME:

RECEIVED BY:

 DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD
 PROJECT: VIC_0066_PFASOMP_24
 SITE: Onsite
 ORDER NO: 304300114
 PROJECT MANAGER: [REDACTED]
 PRIMARY SAMPLER: [REDACTED]
 EMAIL REPORTS TO: [REDACTED]
 EMAIL INVOICES TO: [REDACTED]

CONTACT PH:
 QUOTE NO: SY/139/19_Laverton

SAMPLER MOBILE:
 / EM2023MWHAUS0002

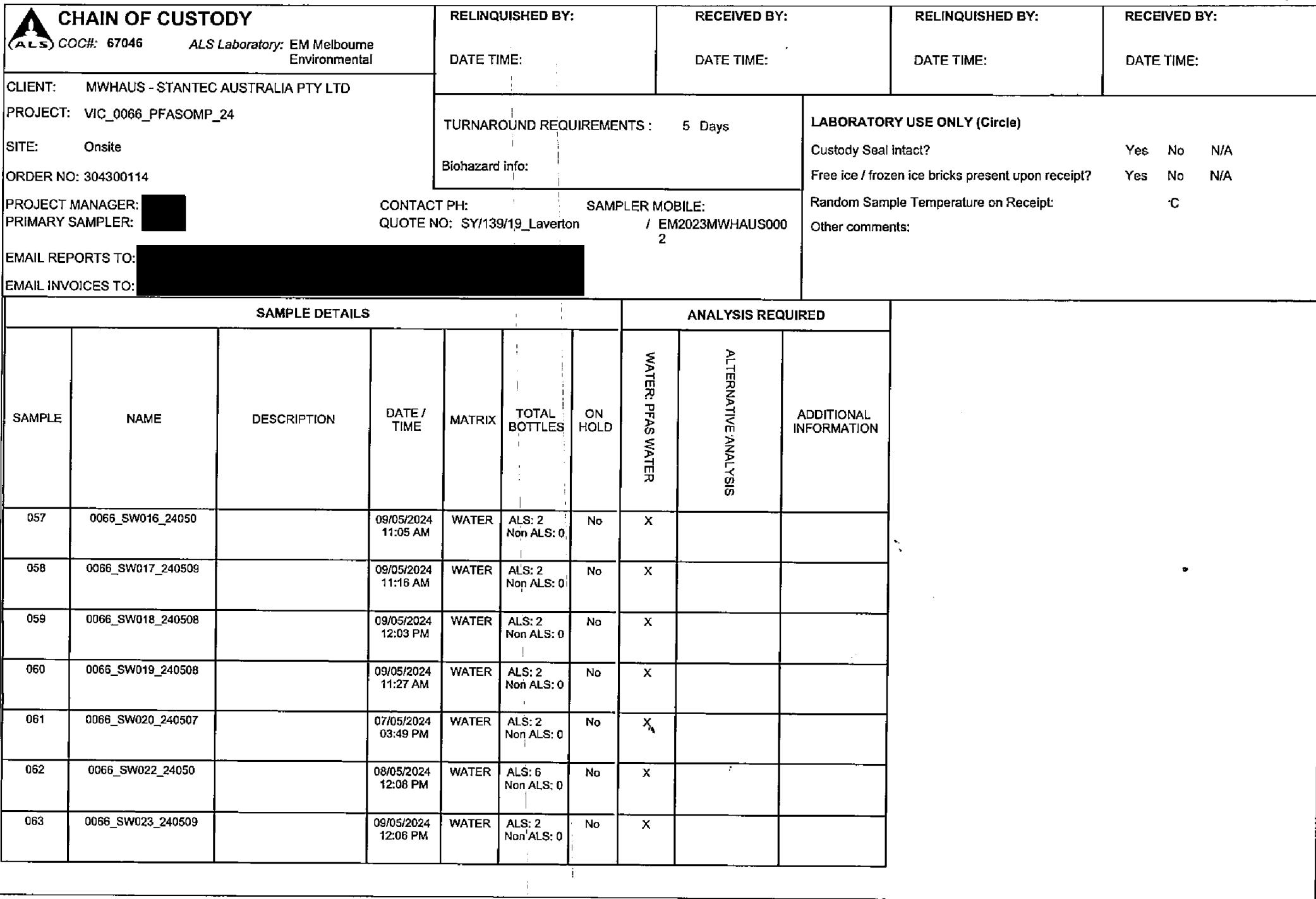
TURNAROUND REQUIREMENTS : 5 Days

 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	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
050	0066_SW003_240509		09/05/2024 02:19 PM	WATER	ALS: 2 Non ALS: 0	No	X		
051	0066_SW005_240509		09/05/2024 03:29 PM	WATER	ALS: 2 Non ALS: 0	No	X		
052	0066_SW007_240509		09/05/2024 01:57 PM	WATER	ALS: 2 Non ALS: 0	No	X		
053	0066_SW009_240508		08/05/2024 03:28 PM	WATER	ALS: 2 Non ALS: 0	No	X		
054	0066_SW010_240508		08/05/2024 02:45 PM	WATER	ALS: 2 Non ALS: 0	No	X		
055	0066_SW014_240509		09/05/2024 11:42 AM	WATER	ALS: 2 Non ALS: 0	No	X		
056	0066_SW015_240509		09/05/2024 11:31 AM	WATER	ALS: 2 Non ALS: 0	No	X		





CHAIN OF CUSTODY

ALS COC#: 67046

ALS Laboratory: EM Melbourne
Environmental

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_24

SITE: Onsite

ORDER NO: 304300114

PROJECT MANAGER: [REDACTED]

PRIMARY SAMPLER: [REDACTED]

EMAIL REPORTS TO: [REDACTED]

EMAIL INVOICES TO: [REDACTED]

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH:

QUOTE NO: SY139/19 Laverdon

SAMPLER MOBILE:

/ EM2023MWHAUS000
2

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	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0066_SW024_240509		09/05/2024 01:28 PM	WATER	ALS: 2 Non ALS: 0	No	X		
065	0066_SW027_240507		07/05/2024 04:11 PM	WATER	ALS: 2 Non ALS: 0	No	X		
066	0066_SW028_240508		08/05/2024 02:24 PM	WATER	ALS: 2 Non ALS: 0	No	X		
067	0066_SW057_240509		09/05/2024 11:54 AM	WATER	ALS: 2 Non ALS: 0	No	X		
068	0066_SW071_240509		09/05/2024 02:39 PM	WATER	ALS: 2 Non ALS: 0	No	X		
069	0066_SW073_240508		08/05/2024 12:30 PM	WATER	ALS: 2 Non ALS: 0	No	X		
070	0066_SW074_240508		08/05/2024 12:09 PM	WATER	ALS: 6 Non ALS: 0	No	X		internal lab, QC

Friday, May 10, 2024

4:53:02 AM



CHAIN OF CUSTODY

COC#: 67046

ALS Laboratory: EM Melbourne
Environmental

CLIENT: MWHHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_24

SITE: Onsite

ORDER NO: 304300114

PROJECT MANAGER: [REDACTED]

PRIMARY SAMPLER: [REDACTED]

EMAIL REPORTS TO: [REDACTED]

EMAIL INVOICES TO: [REDACTED]

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH:

QUOTE NO: SY/139/19_Laverton

SAMPLER MOBILE:

/ EM2023MWHHAUS000
2

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	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
071	0066_SW075_240508		08/05/2024 02:28 PM	WATER	ALS: 2 Non ALS: 0	No	X		
072	0066_SW076_240508		08/05/2024 03:01 PM	WATER	ALS: 6 Non ALS: 0	No	X		internal lab QC
073	0066_SW077_240509		09/05/2024 12:03 PM	WATER	ALS: 2 Non ALS: 0	No	X		
074	0066_SW078_240509		09/05/2024 01:42 PM	WATER	ALS: 2 Non ALS: 0	No	X		
075	0066_QC100_240506		06/05/2024 02:56 PM	WATER	ALS: 2 Non ALS: 0	No	X		
076	0066_QC101_240506		06/05/2024 03:12 PM	WATER	ALS: 2 Non ALS: 0	No	X		
077	0066_QC102_240507		07/05/2024 02:46 PM	WATER	ALS: 2 Non ALS: 0	No	X		

Friday, May 10, 2024

4:53:02 AM



CHAIN OF CUSTODY

COC#: 67046

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

DATE TIME:

DATE TIME:

DATE TIME:

DATE TIME:

CLIENT: MWHHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFASOMP_24

SITE: Onsite

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: SY/139/19_Laverton

SAMPLER MOBILE:

/ EM2023MWHHAUS000
2

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:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
078	0066_QC103_240508		08/05/2024 10:26 AM	WATER	ALS: 2 Non ALS: 0	No	X		
079	0066_QC104_240508		08/05/2024 11:26 AM	WATER	ALS: 2 Non ALS: 0	No	X		
080	0066_QC105_240508		08/05/2024 01:38 PM	WATER	ALS: 2 Non ALS: 0	No	X		
081	0066_QC106_240508		08/05/2024 01:44 PM	WATER	ALS: 2 Non ALS: 0	No	X		
082	0066_QC107_240509		09/05/2024 11:31 AM	WATER	ALS: 2 Non ALS: 0	No	X		
083	0066_QC300_240506		09/05/2024 04:01 PM	WATER	ALS: 2 Non ALS: 0	No	X		
084	0066_QC301_240506		09/05/2024 04:02 PM	WATER	ALS: 2 Non ALS: 0	Yes	-		

Friday, May 10, 2024

4:53:02 AM



CHAIN OF CUSTODY

COC#: 67046

ALS Laboratory: EM Melbourne
Environmental

CLIENT: MWHHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_24

SITE: Onsite

ORDER NO: 304300114

PROJECT MANAGER: [REDACTED]

PRIMARY SAMPLER: [REDACTED]

EMAIL REPORTS TO: [REDACTED]

EMAIL INVOICES TO: [REDACTED]

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

CONTACT PH: [REDACTED]
QUOTE NO: SY/139/19_Laverton

SAMPLER MOBILE:
/ EM2023MWHHAUS000
2

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	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
085	0066_QC302_240507		09/05/2024 04:02 PM	WATER	ALS: 2 Non ALS: 0	No	X		
086	0066_QC303_240507		09/05/2024 04:03 PM	WATER	ALS: 2 Non ALS: 0	Yes	-		
087	0066_QC304_240508		09/05/2024 04:03 PM	WATER	ALS: 2 Non ALS: 0	No	X		
088	0066_QC305_240508		09/05/2024 04:04 PM	WATER	ALS: 2 Non ALS: 0	Yes	-		
089	0066_QC306_240509		09/05/2024 04:05 PM	WATER	ALS: 2 Non ALS: 0	No	X		
090	0066_QC307_240509		09/05/2024 04:05 PM	WATER	ALS: 2 Non ALS: 0	Yes	-		
091	0066_SW090_240506		06/05/2024 02:55 PM	WATER	ALS: 2 Non ALS: 0	No	X		

Friday, May 10, 2024

4:53:02 AM



CHAIN OF CUSTODY

COC#: 67046

ALS Laboratory: EM Melbourne
Environmental

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

DATE TIME:

DATE TIME:

DATE TIME:

DATE TIME:

CLIENT: MWHAUS - STANTEC AUSTRALIA PTY LTD

PROJECT: VIC_0066_PFSOMP_24

SITE: Onsite

ORDER NO: 304300114

PROJECT MANAGER:

PRIMARY SAMPLER:

CONTACT PH:

QUOTE NO: SY/139/19_Laverton

SAMPLER MOBILE:

/ EM2023MWHAUS000
2

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:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

SAMPLE DETAILS

ANALYSIS REQUIRED

SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	WATER: PFAS WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
092	0066_QC500_240509		09/05/2024 03:59 PM	WATER	ALS: 2 Non ALS: 0	No	X		
093	0066_QC501_240509		09/05/2024 04:00 PM	WATER	ALS: 2 Non ALS: 0	No	X		
094	0066_SW072_240510		10/05/2024 10:28 AM	WATER	ALS: 2 Non ALS: 0	No	X		
095	0066_SW029_240510		10/05/2024 10:51 AM	WATER	ALS: 2 Non ALS: 0	No	X		
096	0066_SW030_240510		10/05/2024 10:53 AM	WATER	ALS: 2 Non ALS: 0	No	X		
097	0066_QC308_240510		10/05/2024 11:06 AM	WATER	ALS: 2 Non ALS: 0	No	X		



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2407537	Page	: 1 of 14
Client	: STANTEC AUSTRALIA PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: [REDACTED]	Telephone	: [REDACTED]
Project	: VIC_0066_PFASOMP_24	Date Samples Received	: 10-May-2024
Site	: Onsite	Issue Date	: 20-May-2024
Sampler	: [REDACTED]	No. of samples received	: 97
Order number	: 304300114	No. of samples analysed	: 93

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							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2407537--020	0066_MW064_240508	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	61.2 %	70.0-130%	Recovery less than lower data quality objective

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	8	93	8.60	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	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0066_SW001_240506	06-May-2024	15-May-2024	02-Nov-2024	✔	15-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_240506, 0066_SW090_240506	06-May-2024	16-May-2024	02-Nov-2024	✔	16-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW121_240507, 0066_MW122S_240507, 0066_MW208_240507, 0066_MW212_240507,	07-May-2024	15-May-2024	03-Nov-2024	✔	15-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW020_240507, 0066_QC102_240507	07-May-2024	16-May-2024	03-Nov-2024	✔	16-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X)							



Matrix: WATER Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued								
0066_MW017_240508, 0066_MW028_240508, 0066_MW030_240508, 0066_MW061_240508, 0066_MW063_240508, 0066_MW067_240508, 0066_MW075_240508, 0066_MW117_240508, 0066_MW204_240508, 0066_MW214D_240508, 0066_MW215S_240508, 0066_MW218_240508, 0066_SW010_240508	0066_MW018_240508, 0066_MW029_240508, 0066_MW043_240508, 0066_MW062_240508, 0066_MW064_240508, 0066_MW074_240508, 0066_MW112_240508, 0066_MW202_240508, 0066_MW206_240508, 0066_MW215D_240508, 0066_MW217D_240508, 0066_SW009_240508,	08-May-2024	15-May-2024	04-Nov-2024	✔	15-May-2024	04-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW022_240508, 0066_SW073_240508, 0066_SW075_240508, 0066_QC103_240508, 0066_QC105_240508,	0066_SW028_240508, 0066_SW074_240508, 0066_SW076_240508, 0066_QC104_240508, 0066_QC106_240508	08-May-2024	16-May-2024	04-Nov-2024	✔	16-May-2024	04-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW003_240509, 0066_MW025_240508, 0066_MW034_240509, 0066_MW041_240509, 0066_MW051_240509, 0066_MW068_240509, 0066_MW102_240509, 0066_MW110_240508, 0066_SW003_240509, 0066_SW007_240509, 0066_SW015_240509,	0066_MW019_240509, 0066_MW033_240509, 0066_MW036_240509, 0066_MW046_240509, 0066_MW054_240509, 0066_MW071_240508, 0066_MW109_240509, 0066_MW210_240509, 0066_SW005_240509, 0066_SW014_240509, 0066_SW016_240509	09-May-2024	15-May-2024	05-Nov-2024	✔	15-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_240509, 0066_SW019_240508, 0066_SW024_240509, 0066_SW071_240509, 0066_SW078_240509, 0066_QC300_240506, 0066_QC304_240508, 0066_QC500_240509, 0066_MW069_240509	0066_SW018_240508, 0066_SW023_240509, 0066_SW057_240509, 0066_SW077_240509, 0066_QC107_240509, 0066_QC302_240507, 0066_QC306_240509, 0066_QC501_240509,	09-May-2024	16-May-2024	05-Nov-2024	✔	16-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X)								

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231A: Perfluoroalkyl Sulfonic Acids - Continued								
0066_SW072_240510, 0066_SW030_240510,	0066_SW029_240510, 0066_QC308_240510	10-May-2024	16-May-2024	06-Nov-2024	✓	16-May-2024	06-Nov-2024	✓



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0066_SW001_240506	06-May-2024	15-May-2024	02-Nov-2024	✔	15-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_240506, 0066_SW090_240506	06-May-2024	16-May-2024	02-Nov-2024	✔	16-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW121_240507, 0066_MW122S_240507, 0066_MW208_240507, 0066_MW212_240507,	07-May-2024	15-May-2024	03-Nov-2024	✔	15-May-2024	03-Nov-2024	✔
0066_MW122D_240507, 0066_MW207_240507, 0066_MW209_240507, 0066_MW213_240507							
HDPE (no PTFE) (EP231X) 0066_SW020_240507, 0066_QC102_240507	07-May-2024	16-May-2024	03-Nov-2024	✔	16-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW017_240508, 0066_MW028_240508, 0066_MW030_240508, 0066_MW061_240508, 0066_MW063_240508, 0066_MW067_240508, 0066_MW075_240508, 0066_MW117_240508, 0066_MW204_240508, 0066_MW214D_240508, 0066_MW215S_240508, 0066_MW218_240508, 0066_SW010_240508	08-May-2024	15-May-2024	04-Nov-2024	✔	15-May-2024	04-Nov-2024	✔
0066_MW018_240508, 0066_MW029_240508, 0066_MW043_240508, 0066_MW062_240508, 0066_MW064_240508, 0066_MW074_240508, 0066_MW112_240508, 0066_MW202_240508, 0066_MW206_240508, 0066_MW215D_240508, 0066_MW217D_240508, 0066_SW009_240508,							
HDPE (no PTFE) (EP231X) 0066_SW022_240508, 0066_SW073_240508, 0066_SW075_240508, 0066_QC103_240508, 0066_QC105_240508,	08-May-2024	16-May-2024	04-Nov-2024	✔	16-May-2024	04-Nov-2024	✔
0066_SW028_240508, 0066_SW074_240508, 0066_SW076_240508, 0066_QC104_240508, 0066_QC106_240508							
HDPE (no PTFE) (EP231X)							



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
0066_MW003_240509, 0066_MW025_240508, 0066_MW034_240509, 0066_MW041_240509, 0066_MW051_240509, 0066_MW068_240509, 0066_MW102_240509, 0066_MW110_240508, 0066_SW003_240509, 0066_SW007_240509, 0066_SW015_240509,	0066_MW019_240509, 0066_MW033_240509, 0066_MW036_240509, 0066_MW046_240509, 0066_MW054_240509, 0066_MW071_240508, 0066_MW109_240509, 0066_MW210_240509, 0066_SW005_240509, 0066_SW014_240509, 0066_SW016_240509	09-May-2024	15-May-2024	05-Nov-2024	✔	15-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_240509, 0066_SW019_240508, 0066_SW024_240509, 0066_SW071_240509, 0066_SW078_240509, 0066_QC300_240506, 0066_QC304_240508, 0066_QC500_240509, 0066_MW069_240509	0066_SW018_240508, 0066_SW023_240509, 0066_SW057_240509, 0066_SW077_240509, 0066_QC107_240509, 0066_QC302_240507, 0066_QC306_240509, 0066_QC501_240509,	09-May-2024	16-May-2024	05-Nov-2024	✔	16-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW072_240510, 0066_SW030_240510,	0066_SW029_240510, 0066_QC308_240510	10-May-2024	16-May-2024	06-Nov-2024	✔	16-May-2024	06-Nov-2024	✔



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0066_SW001_240506	06-May-2024	15-May-2024	02-Nov-2024	✔	15-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_240506, 0066_SW090_240506	06-May-2024	16-May-2024	02-Nov-2024	✔	16-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW121_240507, 0066_MW122S_240507, 0066_MW208_240507, 0066_MW212_240507,	07-May-2024	15-May-2024	03-Nov-2024	✔	15-May-2024	03-Nov-2024	✔
0066_MW122D_240507, 0066_MW207_240507, 0066_MW209_240507, 0066_MW213_240507							
HDPE (no PTFE) (EP231X) 0066_SW020_240507, 0066_QC102_240507	07-May-2024	16-May-2024	03-Nov-2024	✔	16-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW017_240508, 0066_MW028_240508, 0066_MW030_240508, 0066_MW061_240508, 0066_MW063_240508, 0066_MW067_240508, 0066_MW075_240508, 0066_MW117_240508, 0066_MW204_240508, 0066_MW214D_240508, 0066_MW215S_240508, 0066_MW218_240508, 0066_SW010_240508	08-May-2024	15-May-2024	04-Nov-2024	✔	15-May-2024	04-Nov-2024	✔
0066_MW018_240508, 0066_MW029_240508, 0066_MW043_240508, 0066_MW062_240508, 0066_MW064_240508, 0066_MW074_240508, 0066_MW112_240508, 0066_MW202_240508, 0066_MW206_240508, 0066_MW215D_240508, 0066_MW217D_240508, 0066_SW009_240508,							
HDPE (no PTFE) (EP231X) 0066_SW022_240508, 0066_SW073_240508, 0066_SW075_240508, 0066_QC103_240508, 0066_QC105_240508,	08-May-2024	16-May-2024	04-Nov-2024	✔	16-May-2024	04-Nov-2024	✔
0066_SW028_240508, 0066_SW074_240508, 0066_SW076_240508, 0066_QC104_240508, 0066_QC106_240508							
HDPE (no PTFE) (EP231X)							



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231C: Perfluoroalkyl Sulfonamides - Continued								
0066_MW003_240509, 0066_MW025_240508, 0066_MW034_240509, 0066_MW041_240509, 0066_MW051_240509, 0066_MW068_240509, 0066_MW102_240509, 0066_MW110_240508, 0066_SW003_240509, 0066_SW007_240509, 0066_SW015_240509,	0066_MW019_240509, 0066_MW033_240509, 0066_MW036_240509, 0066_MW046_240509, 0066_MW054_240509, 0066_MW071_240508, 0066_MW109_240509, 0066_MW210_240509, 0066_SW005_240509, 0066_SW014_240509, 0066_SW016_240509	09-May-2024	15-May-2024	05-Nov-2024	✔	15-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_240509, 0066_SW019_240508, 0066_SW024_240509, 0066_SW071_240509, 0066_SW078_240509, 0066_QC300_240506, 0066_QC304_240508, 0066_QC500_240509, 0066_MW069_240509	0066_SW018_240508, 0066_SW023_240509, 0066_SW057_240509, 0066_SW077_240509, 0066_QC107_240509, 0066_QC302_240507, 0066_QC306_240509, 0066_QC501_240509,	09-May-2024	16-May-2024	05-Nov-2024	✔	16-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW072_240510, 0066_SW030_240510,	0066_SW029_240510, 0066_QC308_240510	10-May-2024	16-May-2024	06-Nov-2024	✔	16-May-2024	06-Nov-2024	✔



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0066_SW001_240506	06-May-2024	15-May-2024	02-Nov-2024	✔	15-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_240506, 0066_SW090_240506	06-May-2024	16-May-2024	02-Nov-2024	✔	16-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW121_240507, 0066_MW122S_240507, 0066_MW208_240507, 0066_MW212_240507,	07-May-2024	15-May-2024	03-Nov-2024	✔	15-May-2024	03-Nov-2024	✔
0066_MW122D_240507, 0066_MW207_240507, 0066_MW209_240507, 0066_MW213_240507							
HDPE (no PTFE) (EP231X) 0066_SW020_240507, 0066_QC102_240507	07-May-2024	16-May-2024	03-Nov-2024	✔	16-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW017_240508, 0066_MW028_240508, 0066_MW030_240508, 0066_MW061_240508, 0066_MW063_240508, 0066_MW067_240508, 0066_MW075_240508, 0066_MW117_240508, 0066_MW204_240508, 0066_MW214D_240508, 0066_MW215S_240508, 0066_MW218_240508, 0066_SW010_240508	08-May-2024	15-May-2024	04-Nov-2024	✔	15-May-2024	04-Nov-2024	✔
0066_MW122D_240507, 0066_MW207_240507, 0066_MW209_240507, 0066_MW213_240507							
HDPE (no PTFE) (EP231X) 0066_SW022_240508, 0066_SW073_240508, 0066_SW075_240508, 0066_QC103_240508, 0066_QC105_240508,	08-May-2024	16-May-2024	04-Nov-2024	✔	16-May-2024	04-Nov-2024	✔
0066_MW018_240508, 0066_MW029_240508, 0066_MW043_240508, 0066_MW062_240508, 0066_MW064_240508, 0066_MW074_240508, 0066_MW112_240508, 0066_MW202_240508, 0066_MW206_240508, 0066_MW215D_240508, 0066_MW217D_240508, 0066_SW009_240508,							
HDPE (no PTFE) (EP231X)							



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
0066_MW003_240509, 0066_MW025_240508, 0066_MW034_240509, 0066_MW041_240509, 0066_MW051_240509, 0066_MW068_240509, 0066_MW102_240509, 0066_MW110_240508, 0066_SW003_240509, 0066_SW007_240509, 0066_SW015_240509,	0066_MW019_240509, 0066_MW033_240509, 0066_MW036_240509, 0066_MW046_240509, 0066_MW054_240509, 0066_MW071_240508, 0066_MW109_240509, 0066_MW210_240509, 0066_SW005_240509, 0066_SW014_240509, 0066_SW016_240509	09-May-2024	15-May-2024	05-Nov-2024	✔	15-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_240509, 0066_SW019_240508, 0066_SW024_240509, 0066_SW071_240509, 0066_SW078_240509, 0066_QC300_240506, 0066_QC304_240508, 0066_QC500_240509, 0066_MW069_240509	0066_SW018_240508, 0066_SW023_240509, 0066_SW057_240509, 0066_SW077_240509, 0066_QC107_240509, 0066_QC302_240507, 0066_QC306_240509, 0066_QC501_240509,	09-May-2024	16-May-2024	05-Nov-2024	✔	16-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW072_240510, 0066_SW030_240510,	0066_SW029_240510, 0066_QC308_240510	10-May-2024	16-May-2024	06-Nov-2024	✔	16-May-2024	06-Nov-2024	✔



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date		Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X) 0066_SW001_240506		06-May-2024	15-May-2024	02-Nov-2024	✔	15-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_QC100_240506, 0066_SW090_240506	0066_QC101_240506,	06-May-2024	16-May-2024	02-Nov-2024	✔	16-May-2024	02-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW121_240507, 0066_MW122S_240507, 0066_MW208_240507, 0066_MW212_240507,	0066_MW122D_240507, 0066_MW207_240507, 0066_MW209_240507, 0066_MW213_240507	07-May-2024	15-May-2024	03-Nov-2024	✔	15-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW020_240507, 0066_QC102_240507	0066_SW027_240507,	07-May-2024	16-May-2024	03-Nov-2024	✔	16-May-2024	03-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_MW017_240508, 0066_MW028_240508, 0066_MW030_240508, 0066_MW061_240508, 0066_MW063_240508, 0066_MW067_240508, 0066_MW075_240508, 0066_MW117_240508, 0066_MW204_240508, 0066_MW214D_240508, 0066_MW215S_240508, 0066_MW218_240508, 0066_SW010_240508	0066_MW018_240508, 0066_MW029_240508, 0066_MW043_240508, 0066_MW062_240508, 0066_MW064_240508, 0066_MW074_240508, 0066_MW112_240508, 0066_MW202_240508, 0066_MW206_240508, 0066_MW215D_240508, 0066_MW217D_240508, 0066_SW009_240508,	08-May-2024	15-May-2024	04-Nov-2024	✔	15-May-2024	04-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW022_240508, 0066_SW073_240508, 0066_SW075_240508, 0066_QC103_240508, 0066_QC105_240508,	0066_SW028_240508, 0066_SW074_240508, 0066_SW076_240508, 0066_QC104_240508, 0066_QC106_240508	08-May-2024	16-May-2024	04-Nov-2024	✔	16-May-2024	04-Nov-2024	✔
HDPE (no PTFE) (EP231X)								



Matrix: WATER

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP231P: PFAS Sums - Continued								
0066_MW003_240509, 0066_MW025_240508, 0066_MW034_240509, 0066_MW041_240509, 0066_MW051_240509, 0066_MW068_240509, 0066_MW102_240509, 0066_MW110_240508, 0066_SW003_240509, 0066_SW007_240509, 0066_SW015_240509,	0066_MW019_240509, 0066_MW033_240509, 0066_MW036_240509, 0066_MW046_240509, 0066_MW054_240509, 0066_MW071_240508, 0066_MW109_240509, 0066_MW210_240509, 0066_SW005_240509, 0066_SW014_240509, 0066_SW016_240509	09-May-2024	15-May-2024	05-Nov-2024	✔	15-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW017_240509, 0066_SW019_240508, 0066_SW024_240509, 0066_SW071_240509, 0066_SW078_240509, 0066_QC300_240506, 0066_QC304_240508, 0066_QC500_240509, 0066_MW069_240509	0066_SW018_240508, 0066_SW023_240509, 0066_SW057_240509, 0066_SW077_240509, 0066_QC107_240509, 0066_QC302_240507, 0066_QC306_240509, 0066_QC501_240509,	09-May-2024	16-May-2024	05-Nov-2024	✔	16-May-2024	05-Nov-2024	✔
HDPE (no PTFE) (EP231X) 0066_SW072_240510, 0066_SW030_240510,	0066_SW029_240510, 0066_QC308_240510	10-May-2024	16-May-2024	06-Nov-2024	✔	16-May-2024	06-Nov-2024	✔



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	8	93	8.60	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	93	5.38	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	93	5.38	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	93	5.38	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	: EM2407537	Page	: 1 of 22
Client	: STANTEC AUSTRALIA PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: [REDACTED]	Contact	: [REDACTED]
Address	: Level 4, 501 Swanston Street Melbourne 3000	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: [REDACTED]
Project	: VIC_0066_PFASOMP_24	Date Samples Received	: 10-May-2024
Order number	: 304300114	Date Analysis Commenced	: 14-May-2024
C-O-C number	: 67046	Issue Date	: 20-May-2024
Sampler	: [REDACTED]		
Site	: Onsite		
Quote number	: SY/139/19_Laverton		
No. of samples received	: 97		
No. of samples analysed	: 93		



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]	LCMS Coordinator	Melbourne Organics, Springvale, VIC



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**

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: 5791194)									
EM2407537-013	0066_MW043_240508	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: 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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2407537-018	0066_MW062_240508	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.26	0.27	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.06	0.05	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: 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: 5791197)									
EM2407537-020	0066_MW064_240508	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.16	0.19	17.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.56	0.63	12.2	0% - 20%
		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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2407537-039	0066_MW208_240507	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: Perfluorobutane sulfonic acid (PFBS)	375-73-5	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: 5791197) - continued									
EM2407537-039	0066_MW208_240507	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: 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: 5791203)									
EM2407537-047	0066_MW217D_240508	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: 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: 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: 5793061)									
EM2407537-072	0066_SW076_240508	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: 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: 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: 5793079)									
EM2407537-062	0066_SW022_240508	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: 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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2407537-070	0066_SW074_240508	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.10	0.13	23.6	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.04	0.03	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: 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: 5791194)									
EM2407537-013	0066_MW043_240508	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



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: 5791194) - continued									
EM2407537-013	0066_MW043_240508	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
EM2407537-018	0066_MW062_240508	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	0.03	0.03	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
		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: 5791197)									
EM2407537-020	0066_MW064_240508	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	0.04	0.04	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
EM2407537-039	0066_MW208_240507	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: 5791197) - continued									
EM2407537-039	0066_MW208_240507	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: 5791203)									
EM2407537-047	0066_MW217D_240508	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 (PFTTrDA)	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: 5793061)									
EM2407537-072	0066_SW076_240508	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 (PFTTrDA)	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: 5793079)									
EM2407537-062	0066_SW022_240508	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 (PFTTrDA)	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



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: 5793079) - continued									
EM2407537-070	0066_SW074_240508	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 (PFTTrDA)	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: 5791194)									
EM2407537-013	0066_MW043_240508	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
EM2407537-018	0066_MW062_240508	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: 5791197)									
EM2407537-020	0066_MW064_240508	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: 5791197) - continued									
EM2407537-020	0066_MW064_240508	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
EM2407537-039	0066_MW208_240507	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: 5791203)									
EM2407537-047	0066_MW217D_240508	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: 5793061)									
EM2407537-072	0066_SW076_240508	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: 5793061) - continued									
EM2407537-072	0066_SW076_240508	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: 5793079)									
EM2407537-062	0066_SW022_240508	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
EM2407537-070	0066_SW074_240508	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: 5791194)									



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: 5791194) - continued									
EM2407537-013	0066_MW043_240508	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
EM2407537-018	0066_MW062_240508	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: 5791197)									
EM2407537-020	0066_MW064_240508	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
EM2407537-039	0066_MW208_240507	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: 5791203)									
EM2407537-047	0066_MW217D_240508	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: 5791203) - continued									
EM2407537-047	0066_MW217D_240508	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: 5793061)									
EM2407537-072	0066_SW076_240508	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: 5793079)									
EM2407537-062	0066_SW022_240508	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
EM2407537-070	0066_SW074_240508	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: 5791194)									
EM2407537-013	0066_MW043_240508	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
EM2407537-018	0066_MW062_240508	EP231X: Sum of PFAS	----	0.01	µg/L	0.47	0.47	0.0	0% - 20%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.32	0.32	0.0	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.45	0.45	0.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 5791197)									
EM2407537-020	0066_MW064_240508	EP231X: Sum of PFAS	----	0.01	µg/L	0.77	0.87	12.2	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 (%)
EP231P: PFAS Sums (QC Lot: 5791197) - continued									
EM2407537-020	0066_MW064_240508	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.72	0.82	13.0	0% - 20%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.77	0.87	12.2	0% - 20%
EM2407537-039	0066_MW208_240507	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: 5791203)									
EM2407537-047	0066_MW217D_240508	EP231X: Sum of PFAS	----	0.01	µg/L	0.02	0.03	40.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.02	0.03	40.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.02	0.03	40.0	No Limit
EP231P: PFAS Sums (QC Lot: 5793061)									
EM2407537-072	0066_SW076_240508	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: 5793079)									
EM2407537-062	0066_SW022_240508	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
EM2407537-070	0066_SW074_240508	EP231X: Sum of PFAS	----	0.01	µg/L	0.14	0.16	13.3	0% - 50%
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.14	0.16	13.3	0% - 50%
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.14	0.16	13.3	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: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5791194)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	87.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	92.7	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	87.3	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	91.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	87.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	85.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5791197)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	85.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	93.5	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	99.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	89.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	93.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	94.3	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5791203)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	98.1	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	97.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	94.2	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	94.1	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	91.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5793061)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	80.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	76.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	75.9	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	96.9	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	80.5	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	88.0	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5793079)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	89.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	90.8	71.0	127



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5793079) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	96.7	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.238 µg/L	97.3	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: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	90.1	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791194)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	79.5	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	80.7	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	83.7	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	90.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	86.5	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	77.1	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	88.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.3	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	86.1	72.0	134
EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	98.3	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791197)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	76.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	85.3	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	82.7	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	79.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	84.3	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	71.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	77.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	74.1	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	76.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	77.1	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	80.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791203)								
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	101	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	99.9	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791203) - continued								
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	84.3	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	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.0	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	0.625 µg/L	111	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5793061)								
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	89.3	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	86.3	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	76.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	76.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	70.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	78.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	82.1	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	79.7	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	86.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	85.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5793079)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	78.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	85.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	83.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	86.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	89.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	74.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	82.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	73.7	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	83.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	84.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	90.5	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791194)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	87.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	89.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.0	70.0	130



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791194) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	85.2	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	91.8	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	91.1	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	91.3	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791197)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	79.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	87.3	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	83.8	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	79.1	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	84.4	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	81.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	69.1	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791203)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	100	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	108	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	103	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	97.0	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	95.7	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	91.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5793061)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	78.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	93.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	81.7	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	77.7	70.0	130



Sub-Matrix: **WATER**

Method: Compound				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
CAS Number	LOR	Unit	Result					
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5793061) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	78.5	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	84.5	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	81.5	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5793079)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.5	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	85.3	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	84.3	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	94.1	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	87.5	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: 5791194)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	89.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	98.3	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	94.3	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	81.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5791197)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	84.5	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	80.6	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	72.2	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	71.3	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5791203)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	110	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 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	115	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	92.8	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5793061)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	80.3	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 µg/L	87.4	64.0	140



Sub-Matrix: **WATER**

Method Blank (MB) Report				Laboratory Control Spike (LCS) Report				
				Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
					LCS	Low	High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5793061) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.24 µg/L	94.5	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	78.6	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5793079)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	120	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.238 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	0.242 µg/L	87.8	70.0	130
EP231P: PFAS Sums (QCLot: 5791194)								
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: 5791197)								
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: 5791203)								
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: 5793061)								
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: 5793079)								
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**

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: 5791194)							
EM2407537-013	0066_MW043_240508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	81.5	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	76.1	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	81.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	82.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	108	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	80.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5791197)							
EM2407537-020	0066_MW064_240508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	101	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	83.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	107	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	88.9	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	112	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	76.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5791203)							
EM2407537-047	0066_MW217D_240508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	115	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	119	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	114	68.0	131
		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	103	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	102	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5793061)							
EM2407537-072	0066_SW076_240508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	87.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	76.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	96.4	68.0	131
		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	81.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	62.5	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5793079)							
EM2407537-070	0066_SW074_240508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	82.5	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	77.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	84.3	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	86.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	77.4	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	77.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791194)							
EM2407537-013	0066_MW043_240508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	73.9	73.0	129



Sub-Matrix: **WATER**

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: 5791194) - continued							
EM2407537-013	0066_MW043_240508	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	91.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	85.7	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	82.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	84.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	75.3	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	79.5	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	76.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	77.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	76.3	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	81.5	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791197)							
EM2407537-020	0066_MW064_240508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	76.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	75.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	73.3	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	84.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	85.3	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	75.5	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	77.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	72.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	79.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	74.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	79.2	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5791203)					
EM2407537-047	0066_MW217D_240508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	103	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	105	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	113	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	112	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	112	71.0	129
		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	105	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	119	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	126	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5793061)					
EM2407537-072	0066_SW076_240508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	78.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	72.9	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	78.8	72.0	129



Sub-Matrix: **WATER**

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: 5793061) - continued							
EM2407537-072	0066_SW076_240508	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	82.5	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	83.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	74.9	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	71.8	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	76.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	72.0	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	82.3	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	93.7	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5793079)							
EM2407537-070	0066_SW074_240508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	73.5	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	72.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	75.6	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	78.3	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	84.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	70.5	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	80.8	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	70.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	80.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	84.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	91.0	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791194)							
EM2407537-013	0066_MW043_240508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	83.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	97.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	94.1	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	80.9	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	87.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	75.9	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	74.5	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791197)							
EM2407537-020	0066_MW064_240508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	85.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	83.9	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	72.8	70.0	130



Sub-Matrix: **WATER**

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: 5791197) - continued							
EM2407537-020	0066_MW064_240508	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	81.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	81.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	82.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	74.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5791203)							
EM2407537-047	0066_MW217D_240508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	104	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	109	68.0	141
		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	108	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	106	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	118	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5793061)							
EM2407537-072	0066_SW076_240508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	72.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	73.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	70.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	76.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	74.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	73.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	71.7	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5793079)							
EM2407537-070	0066_SW074_240508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	82.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	87.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	86.9	70.0	130



Sub-Matrix: **WATER**

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: 5793079) - continued							
EM2407537-070	0066_SW074_240508	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	88.2	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	80.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	76.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	75.5	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5791194)							
EM2407537-013	0066_MW043_240508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	66.0	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	79.4	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	79.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	72.8	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5791197)							
EM2407537-020	0066_MW064_240508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	82.3	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	87.6	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	90.9	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	# 61.2	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5791203)							
EM2407537-047	0066_MW217D_240508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	120	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	134	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	108	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5793061)							
EM2407537-072	0066_SW076_240508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	82.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	99.6	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	96.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	70.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5793079)							
EM2407537-070	0066_SW074_240508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	87.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	89.3	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	94.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	72.3	70.0	130



CERTIFICATE OF ANALYSIS

Work Order : **EM2407537**
Client : **STANTEC AUSTRALIA PTY LTD**
Contact : **[REDACTED]**
Address : Level 4, 501 Swanston Street
Melbourne 3000
Telephone : ----
Project : VIC_0066_PFASOMP_24
Order number : 304300114
C-O-C number : 67046
Sampler : **[REDACTED]**
Site : Onsite
Quote number : SY/139/19_Laverton
No. of samples received : 97
No. of samples analysed : 93

Page : 1 of 43
Laboratory : Environmental Division Melbourne
Contact : **[REDACTED]**
Address : 4 Westall Rd Springvale VIC Australia 3171
Telephone : **[REDACTED]**
Date Samples Received : 10-May-2024 15:30
Date Analysis Commenced : 14-May-2024
Issue Date : 20-May-2024 16:50



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]

LCMS Coordinator

Melbourne Organics, Springvale, VIC



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: Poor matrix spike recovery for sample EM2407537-020 due to sample matrix interference.
- 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

				0066_MW003_240509	0066_MW017_240508	0066_MW018_240508	0066_MW019_240509	0066_MW025_240508
Sampling date / time				09-May-2024 12:31	08-May-2024 10:22	08-May-2024 09:55	09-May-2024 10:29	09-May-2024 10:08
Compound	CAS Number	LOR	Unit	EM2407537-001	EM2407537-002	EM2407537-003	EM2407537-004	EM2407537-005
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25	<0.02	<0.02	0.08
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.28	<0.02	<0.02	0.03
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	6.04	0.08	0.08	0.75
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.17	<0.02	<0.02	0.09
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	2.20	<0.01	0.02	4.32
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	0.15	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.44	<0.02	<0.02	0.10
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.08	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.29	<0.01	0.02	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
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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW003_240509	0066_MW017_240508	0066_MW018_240508	0066_MW019_240509	0066_MW025_240508
Sampling date / time				09-May-2024 12:31	08-May-2024 10:22	08-May-2024 09:55	09-May-2024 10:29	09-May-2024 10:08
Compound	CAS Number	LOR	Unit	EM2407537-001	EM2407537-002	EM2407537-003	EM2407537-004	EM2407537-005
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.05
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	10.0	0.08	0.12	5.52
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	8.24	0.08	0.10	5.07
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	9.45	0.08	0.12	5.31
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	107	100	100	113	107
13C8-PFOA	----	0.02	%	113	111	107	110	113



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW028_240508	0066_MW029_240508	0066_MW030_240508	0066_MW033_240509	0066_MW034_240509
Sampling date / time				08-May-2024 14:48	08-May-2024 14:17	08-May-2024 14:03	09-May-2024 14:07	09-May-2024 14:11
Compound	CAS Number	LOR	Unit	EM2407537-006	EM2407537-007	EM2407537-008	EM2407537-009	EM2407537-010
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.36	0.04	0.01	0.02	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.03	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.51	<0.01	0.02	<0.01	<0.01
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	0.02	<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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW028_240508	0066_MW029_240508	0066_MW030_240508	0066_MW033_240509	0066_MW034_240509
Sampling date / time				08-May-2024 14:48	08-May-2024 14:17	08-May-2024 14:03	09-May-2024 14:07	09-May-2024 14:11
Compound	CAS Number	LOR	Unit	EM2407537-006	EM2407537-007	EM2407537-008	EM2407537-009	EM2407537-010
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.92	0.06	0.03	0.02	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.87	0.04	0.03	0.02	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.89	0.06	0.03	0.02	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	104	102	101	101	107
13C8-PFOA	----	0.02	%	108	108	110	104	110



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW036_240509	0066_MW041_240509	0066_MW043_240508	0066_MW046_240509	0066_MW051_240509
Sampling date / time				09-May-2024 13:22	09-May-2024 13:11	08-May-2024 14:05	09-May-2024 14:54	09-May-2024 16:18
Compound	CAS Number	LOR	Unit	EM2407537-011	EM2407537-012	EM2407537-013	EM2407537-014	EM2407537-015
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.32	<0.01	0.03	0.05
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	0.01	0.03	0.05
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	0.03	<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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW036_240509	0066_MW041_240509	0066_MW043_240508	0066_MW046_240509	0066_MW051_240509
Sampling date / time				09-May-2024 13:22	09-May-2024 13:11	08-May-2024 14:05	09-May-2024 14:54	09-May-2024 16:18
Compound	CAS Number	LOR	Unit	EM2407537-011	EM2407537-012	EM2407537-013	EM2407537-014	EM2407537-015
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.40	0.01	0.06	0.12
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.05	0.35	0.01	0.06	0.10
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.05	0.38	0.01	0.06	0.12
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	101	101	107	103	111
13C8-PFOA	----	0.02	%	96.1	106	109	106	112



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW054_240509	0066_MW061_240508	0066_MW062_240508	0066_MW063_240508	0066_MW064_240508
Sampling date / time				09-May-2024 14:32	08-May-2024 13:38	08-May-2024 13:51	08-May-2024 11:26	08-May-2024 11:49
Compound	CAS Number	LOR	Unit	EM2407537-016	EM2407537-017	EM2407537-018	EM2407537-019	EM2407537-020
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.03	<0.02	0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.29	0.25	0.26	0.03	0.16
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	0.07	0.06	<0.01	0.56
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	0.03	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	0.04	0.07	<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	0.03	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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW054_240509	0066_MW061_240508	0066_MW062_240508	0066_MW063_240508	0066_MW064_240508
Sampling date / time				09-May-2024 14:32	08-May-2024 13:38	08-May-2024 13:51	08-May-2024 11:26	08-May-2024 11:49
Compound	CAS Number	LOR	Unit	EM2407537-016	EM2407537-017	EM2407537-018	EM2407537-019	EM2407537-020
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.35	0.39	0.47	0.03	0.77
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.29	0.32	0.32	0.03	0.72
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.32	0.39	0.45	0.03	0.77
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	106	107	102	104	103
13C8-PFOA	----	0.02	%	112	108	108	108	100



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW067_240508	0066_MW068_240509	0066_MW071_240508	0066_MW074_240508	0066_MW075_240508
Sampling date / time				08-May-2024 10:25	09-May-2024 13:35	09-May-2024 10:50	08-May-2024 10:33	08-May-2024 10:43
Compound	CAS Number	LOR	Unit	EM2407537-021	EM2407537-022	EM2407537-024	EM2407537-025	EM2407537-026
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	2.70	0.02	0.02	1.07	8.68
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	5.11	<0.02	0.05	0.48	2.62
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	75.5	0.24	0.51	3.83	2.41
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	1.16	<0.02	<0.02	0.07	0.18
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	5.34	0.17	<0.01	0.53	2.83
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	1.0	<0.1	<0.1	0.2	2.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	2.24	0.04	<0.02	0.29	2.74
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	12.2	0.07	0.07	1.06	9.33
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	1.71	<0.02	0.02	0.16	0.27
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	2.63	0.02	0.01	0.14	0.15
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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW067_240508	0066_MW068_240509	0066_MW071_240508	0066_MW074_240508	0066_MW075_240508
Sampling date / time				08-May-2024 10:25	09-May-2024 13:35	09-May-2024 10:50	08-May-2024 10:33	08-May-2024 10:43
Compound	CAS Number	LOR	Unit	EM2407537-021	EM2407537-022	EM2407537-024	EM2407537-025	EM2407537-026
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	111	0.56	0.68	9.07	36.7
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	80.8	0.41	0.51	4.36	5.24
Sum of PFAS (WA DER List)	----	0.01	µg/L	103	0.56	0.63	7.28	28.5
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	103	100	112	98.5	100
13C8-PFOA	----	0.02	%	107	109	111	107	103



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW102_240509	0066_MW109_240509	0066_MW110_240508	0066_MW112_240508	0066_MW117_240508
Sampling date / time				09-May-2024 12:23	09-May-2024 14:52	09-May-2024 11:09	08-May-2024 13:43	08-May-2024 09:42
Compound	CAS Number	LOR	Unit	EM2407537-027	EM2407537-028	EM2407537-029	EM2407537-030	EM2407537-031
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.04	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.11	0.02	0.18	<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	0.48	0.03	0.04	<0.01	<0.01
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	0.08	<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	0.02	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
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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW102_240509	0066_MW109_240509	0066_MW110_240508	0066_MW112_240508	0066_MW117_240508
Sampling date / time				09-May-2024 12:23	09-May-2024 14:52	09-May-2024 11:09	08-May-2024 13:43	08-May-2024 09:42
Compound	CAS Number	LOR	Unit	EM2407537-027	EM2407537-028	EM2407537-029	EM2407537-030	EM2407537-031
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.62	0.07	0.43	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.59	0.05	0.22	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.62	0.07	0.39	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	114	116	98.2	108	98.2
13C8-PFOA	----	0.02	%	109	112	108	108	107



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW121_240507	0066_MW122D_240507	0066_MW122S_240507	0066_MW202_240508	0066_MW204_240508
Sampling date / time				07-May-2024 10:30	07-May-2024 10:28	07-May-2024 10:31	08-May-2024 12:38	08-May-2024 12:22
Compound	CAS Number	LOR	Unit	EM2407537-032	EM2407537-033	EM2407537-034	EM2407537-035	EM2407537-036
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	1.73	<0.02	0.04	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	1.44	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	11.3	<0.01	0.31	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.69	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	20.9	<0.01	0.16	<0.01	<0.01
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	1.0	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	1.58	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	4.50	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.98	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	1.27	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.10	<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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW121_240507	0066_MW122D_240507	0066_MW122S_240507	0066_MW202_240508	0066_MW204_240508
Sampling date / time				07-May-2024 10:30	07-May-2024 10:28	07-May-2024 10:31	08-May-2024 12:38	08-May-2024 12:22
Compound	CAS Number	LOR	Unit	EM2407537-032	EM2407537-033	EM2407537-034	EM2407537-035	EM2407537-036
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.20	<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	46.7	<0.01	0.51	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	32.2	<0.01	0.47	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	43.5	<0.01	0.51	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	109	106	108	109	115
13C8-PFOA	----	0.02	%	104	108	111	108	106



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW206_240508	0066_MW207_240507	0066_MW208_240507	0066_MW209_240507	0066_MW210_240509
Sampling date / time				08-May-2024 11:48	07-May-2024 14:45	07-May-2024 14:58	07-May-2024 15:12	09-May-2024 13:43
Compound	CAS Number	LOR	Unit	EM2407537-037	EM2407537-038	EM2407537-039	EM2407537-040	EM2407537-041
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW206_240508	0066_MW207_240507	0066_MW208_240507	0066_MW209_240507	0066_MW210_240509
Sampling date / time				08-May-2024 11:48	07-May-2024 14:45	07-May-2024 14:58	07-May-2024 15:12	09-May-2024 13:43
Compound	CAS Number	LOR	Unit	EM2407537-037	EM2407537-038	EM2407537-039	EM2407537-040	EM2407537-041
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	110	111	105	119
13C8-PFOA	----	0.02	%	106	107	109	108	104



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW212_240507	0066_MW213_240507	0066_MW214D_240508	0066_MW215D_240508	0066_MW215S_240508
Sampling date / time				07-May-2024 10:30	07-May-2024 10:29	08-May-2024 09:41	08-May-2024 10:06	08-May-2024 09:54	
Compound	CAS Number	LOR	Unit	EM2407537-042	EM2407537-043	EM2407537-044	EM2407537-045	EM2407537-046	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.35	0.88	<0.02	0.34	9.58	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.28	0.50	<0.02	0.30	11.1	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	6.36	9.96	0.09	2.19	63.2	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	1.64	0.19	<0.02	0.05	3.37	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	44.2	0.71	0.19	0.43	44.7	
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	1.4	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.11	0.19	<0.02	0.05	2.66	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.42	0.87	<0.02	0.26	20.8	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.16	0.27	<0.02	0.06	1.92	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.57	0.64	<0.01	0.09	2.61	
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	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0066_MW212_240507	0066_MW213_240507	0066_MW214D_240508	0066_MW215D_240508	0066_MW215S_240508
Sampling date / time					07-May-2024 10:30	07-May-2024 10:29	08-May-2024 09:41	08-May-2024 10:06	08-May-2024 09:54
Compound	CAS Number	LOR	Unit	EM2407537-042	EM2407537-043	EM2407537-044	EM2407537-045	EM2407537-046	
				Result	Result	Result	Result	Result	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	0.07	
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	54.4	14.4	0.28	3.87	166	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	50.6	10.7	0.28	2.62	108	
Sum of PFAS (WA DER List)	----	0.01	µg/L	52.2	13.5	0.28	3.42	147	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	99.3	90.3	109	90.2	112	
13C8-PFOA	----	0.02	%	108	107	109	105	106	



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW217D_240508	0066_MW218_240508	0066_QC102_240507	0066_QC103_240508	0066_QC104_240508
Sampling date / time				08-May-2024 15:15	08-May-2024 15:29	07-May-2024 14:46	08-May-2024 10:26	08-May-2024 11:26
Compound	CAS Number	LOR	Unit	EM2407537-047	EM2407537-048	EM2407537-077	EM2407537-078	EM2407537-079
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	2.58	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	5.69	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	77.4	0.03
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	1.10	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	<0.01	<0.01	4.49	<0.01
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	2.06	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	12.1	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	1.65	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	2.43	<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



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_MW217D_240508	0066_MW218_240508	0066_QC102_240507	0066_QC103_240508	0066_QC104_240508
Sampling date / time				08-May-2024 15:15	08-May-2024 15:29	07-May-2024 14:46	08-May-2024 10:26	08-May-2024 11:26
Compound	CAS Number	LOR	Unit	EM2407537-047	EM2407537-048	EM2407537-077	EM2407537-078	EM2407537-079
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	<0.01	<0.01	111	0.03
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.02	<0.01	<0.01	81.9	0.03
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.02	<0.01	<0.01	104	0.03
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	102	111	114	95.5	113
13C8-PFOA	----	0.02	%	104	105	101	103	108



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_QC105_240508	0066_QC106_240508	0066_MW069_240509	----	----
Sampling date / time				08-May-2024 13:38	08-May-2024 13:44	09-May-2024 16:26	----	----
Compound	CAS Number	LOR	Unit	EM2407537-080	EM2407537-081	EM2407537-098	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.22	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.05	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.24	<0.01	0.04	----	----
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	0.06	<0.01	<0.01	----	----
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	0.05	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	<0.02	0.16	----	----
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	0.03	<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	----	----



Analytical Results

Sub-Matrix: GROUNDWATER
 (Matrix: WATER)

Sample ID

				0066_QC105_240508	0066_QC106_240508	0066_MW069_240509	----	----
Sampling date / time				08-May-2024 13:38	08-May-2024 13:44	09-May-2024 16:26	----	----
Compound	CAS Number	LOR	Unit	EM2407537-080	EM2407537-081	EM2407537-098	-----	-----
				Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.36	<0.01	0.64	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.30	<0.01	0.04	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.36	<0.01	0.47	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	112	112	102	----	----
13C8-PFOA	----	0.02	%	104	107	110	----	----



Analytical Results

Sub-Matrix: RINSATE
 (Matrix: WATER)

Sample ID

				0066_QC300_240506	0066_QC302_240507	0066_QC304_240508	0066_QC306_240509	0066_QC308_240510
Sampling date / time				09-May-2024 16:01	09-May-2024 16:02	09-May-2024 16:03	09-May-2024 16:05	10-May-2024 11:06
Compound	CAS Number	LOR	Unit	EM2407537-083	EM2407537-085	EM2407537-087	EM2407537-089	EM2407537-097
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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
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



Analytical Results

Sub-Matrix: RINSATE
 (Matrix: WATER)

Sample ID

				0066_QC300_240506	0066_QC302_240507	0066_QC304_240508	0066_QC306_240509	0066_QC308_240510
Sampling date / time				09-May-2024 16:01	09-May-2024 16:02	09-May-2024 16:03	09-May-2024 16:05	10-May-2024 11:06
Compound	CAS Number	LOR	Unit	EM2407537-083	EM2407537-085	EM2407537-087	EM2407537-089	EM2407537-097
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	%	101	108	115	104	111
13C8-PFOA	----	0.02	%	100	98.1	101	99.0	102



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW001_240506	0066_SW003_240509	0066_SW005_240509	0066_SW007_240509	0066_SW009_240508
Sampling date / time				06-May-2024 15:13	09-May-2024 14:19	09-May-2024 15:29	09-May-2024 13:57	08-May-2024 15:28
Compound	CAS Number	LOR	Unit	EM2407537-049	EM2407537-050	EM2407537-051	EM2407537-052	EM2407537-053
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.07	<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	0.10	<0.01	<0.01
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



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW001_240506	0066_SW003_240509	0066_SW005_240509	0066_SW007_240509	0066_SW009_240508
Sampling date / time				06-May-2024 15:13	09-May-2024 14:19	09-May-2024 15:29	09-May-2024 13:57	08-May-2024 15:28
Compound	CAS Number	LOR	Unit	EM2407537-049	EM2407537-050	EM2407537-051	EM2407537-052	EM2407537-053
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.17	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.17	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.17	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	112	106	112	99.4	101
13C8-PFOA	----	0.02	%	104	104	110	109	107



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW010_240508	0066_SW014_240509	0066_SW015_240509	0066_SW016_240509	0066_SW017_240509
Sampling date / time				08-May-2024 14:45	09-May-2024 11:42	09-May-2024 11:31	09-May-2024 11:05	09-May-2024 11:16
Compound	CAS Number	LOR	Unit	EM2407537-054	EM2407537-055	EM2407537-056	EM2407537-057	EM2407537-058
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.56	0.42	0.28	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.34	0.20	0.20	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.06	2.98	1.88	1.74	0.06
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.14	0.09	0.11	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	3.72	1.98	2.71	0.06
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	0.3	0.2	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.61	0.32	0.20	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	2.97	1.56	0.91	0.06
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.74	0.40	0.24	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	1.06	0.90	0.85	0.02
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.03	0.04	0.05	<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



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW010_240508	0066_SW014_240509	0066_SW015_240509	0066_SW016_240509	0066_SW017_240509
Sampling date / time				08-May-2024 14:45	09-May-2024 11:42	09-May-2024 11:31	09-May-2024 11:05	09-May-2024 11:16
Compound	CAS Number	LOR	Unit	EM2407537-054	EM2407537-055	EM2407537-056	EM2407537-057	EM2407537-058
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.03	0.07	<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	0.21	13.9	8.37	7.66	0.20
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.17	6.70	3.86	4.45	0.12
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.21	13.1	7.76	7.13	0.20
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	106	107	96.8	100	102
13C8-PFOA	----	0.02	%	106	106	111	110	99.6



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW018_240508	0066_SW019_240508	0066_SW020_240507	0066_SW022_240508	0066_SW023_240509
Sampling date / time				09-May-2024 12:03	09-May-2024 11:27	07-May-2024 15:49	08-May-2024 12:08	09-May-2024 12:06
Compound	CAS Number	LOR	Unit	EM2407537-059	EM2407537-060	EM2407537-061	EM2407537-062	EM2407537-063
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.03	<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
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



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW018_240508	0066_SW019_240508	0066_SW020_240507	0066_SW022_240508	0066_SW023_240509
Sampling date / time				09-May-2024 12:03	09-May-2024 11:27	07-May-2024 15:49	08-May-2024 12:08	09-May-2024 12:06
Compound	CAS Number	LOR	Unit	EM2407537-059	EM2407537-060	EM2407537-061	EM2407537-062	EM2407537-063
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.05	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	0.05	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	0.05	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	131	111	114	98.0	95.9
13C8-PFOA	----	0.02	%	129	102	102	112	105



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW024_240509	0066_SW027_240507	0066_SW028_240508	0066_SW057_240509	0066_SW071_240509
Sampling date / time				09-May-2024 13:28	07-May-2024 16:11	08-May-2024 14:24	09-May-2024 11:54	09-May-2024 14:39
Compound	CAS Number	LOR	Unit	EM2407537-064	EM2407537-065	EM2407537-066	EM2407537-067	EM2407537-068
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	0.50	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	0.53	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.04	<0.01	3.09	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	0.15	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.10	0.03	3.65	<0.01
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	0.69	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	3.67	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	0.74	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	1.03	<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



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW024_240509	0066_SW027_240507	0066_SW028_240508	0066_SW057_240509	0066_SW071_240509
Sampling date / time				09-May-2024 13:28	07-May-2024 16:11	08-May-2024 14:24	09-May-2024 11:54	09-May-2024 14:39
Compound	CAS Number	LOR	Unit	EM2407537-064	EM2407537-065	EM2407537-066	EM2407537-067	EM2407537-068
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.14	0.03	8.16	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	0.14	0.03	2.48	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	0.14	0.03	7.34	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	99.0	94.0	99.8	105	97.9
13C8-PFOA	----	0.02	%	101	102	103	94.9	104



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW073_240508	0066_SW074_240508	0066_SW075_240508	0066_SW076_240508	0066_SW077_240509
Sampling date / time				08-May-2024 12:30	08-May-2024 12:09	08-May-2024 14:28	08-May-2024 15:01	09-May-2024 12:03
Compound	CAS Number	LOR	Unit	EM2407537-069	EM2407537-070	EM2407537-071	EM2407537-072	EM2407537-073
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.10	<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	0.09	0.04	0.01	<0.01	0.01
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



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW073_240508	0066_SW074_240508	0066_SW075_240508	0066_SW076_240508	0066_SW077_240509
Sampling date / time				08-May-2024 12:30	08-May-2024 12:09	08-May-2024 14:28	08-May-2024 15:01	09-May-2024 12:03
Compound	CAS Number	LOR	Unit	EM2407537-069	EM2407537-070	EM2407537-071	EM2407537-072	EM2407537-073
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.13	0.14	0.01	<0.01	0.02
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.13	0.14	0.01	<0.01	0.02
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.13	0.14	0.01	<0.01	0.02
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	102	100	106	109	102
13C8-PFOA	----	0.02	%	103	102	96.8	108	111



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW078_240509	0066_QC100_240506	0066_QC101_240506	0066_QC107_240509	0066_SW090_240506
Sampling date / time				09-May-2024 13:42	06-May-2024 14:56	06-May-2024 15:12	09-May-2024 11:31	06-May-2024 14:55
Compound	CAS Number	LOR	Unit	EM2407537-074	EM2407537-075	EM2407537-076	EM2407537-082	EM2407537-091
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	0.37	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	0.26	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.04	0.08	<0.01	1.90	0.07
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	0.10	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.08	<0.01	2.09	0.08
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	0.3	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	0.40	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	1.84	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	0.36	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	0.85	<0.01
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								
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



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW078_240509	0066_QC100_240506	0066_QC101_240506	0066_QC107_240509	0066_SW090_240506
Sampling date / time				09-May-2024 13:42	06-May-2024 14:56	06-May-2024 15:12	09-May-2024 11:31	06-May-2024 14:55
Compound	CAS Number	LOR	Unit	EM2407537-074	EM2407537-075	EM2407537-076	EM2407537-082	EM2407537-091
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.03	<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	0.07	0.16	<0.01	8.67	0.15
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.07	0.16	<0.01	3.99	0.15
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.07	0.16	<0.01	8.11	0.15
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	93.8	100	116	116	110
13C8-PFOA	----	0.02	%	102	99.4	109	105	106



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW072_240510	0066_SW029_240510	0066_SW030_240510	----	----
Sampling date / time				10-May-2024 10:28	10-May-2024 10:51	10-May-2024 10:53	----	----
Compound	CAS Number	LOR	Unit	EM2407537-094	EM2407537-095	EM2407537-096	-----	-----
				Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
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	0.05	0.05	0.06	----	----
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	0.20	0.16	0.21	----	----
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	0.05	0.07	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.04	0.06	----	----
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	0.02	0.02	----	----
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	----	----



Analytical Results

Sub-Matrix: SURFACE WATER
 (Matrix: WATER)

Sample ID

				0066_SW072_240510	0066_SW029_240510	0066_SW030_240510	----	----
Sampling date / time				10-May-2024 10:28	10-May-2024 10:51	10-May-2024 10:53	----	----
Compound	CAS Number	LOR	Unit	EM2407537-094	EM2407537-095	EM2407537-096	-----	-----
				Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
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	0.06	----	----
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	0.25	0.32	0.48	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.25	0.21	0.27	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	0.25	0.32	0.48	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	109	109	114	----	----
13C8-PFOA	----	0.02	%	107	107	108	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				0066_QC500_240509	0066_QC501_240509	----	----	----
Sampling date / time				09-May-2024 15:59	09-May-2024 16:00	----	----	----
Compound	CAS Number	LOR	Unit	EM2407537-092	EM2407537-093	-----	-----	-----
				Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
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	----	----	----
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	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0066_QC500_240509	0066_QC501_240509	----	----	----
Sampling date / time					09-May-2024 15:59	09-May-2024 16:00	----	----	----
Compound	CAS Number	LOR	Unit		EM2407537-092	EM2407537-093	-----	-----	-----
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
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	%		114	124	----	----	----
13C8-PFOA	----	0.02	%		106	110	----	----	----



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: 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

Sheet 1 of 1

NC



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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 Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289
---	--	--	--	---	--

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ABN: 47 009 120 549

Perth ProMicro 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554
--

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: Stantec Australia Pty Ltd (VIC)
Address: Level 22, 570 Bourke Street
Melbourne
VIC 3000

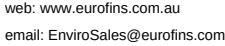
Project Name: 0066 (CERBERUS)
Project ID: DEF19008

Order No.:
Report #: 1096549
Phone:
Fax:

Received: May 13, 2024 2:30 PM
Due: May 20, 2024
Priority: 5 Day
Contact Name:

Eurofins Analytical Services Manager :

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	0066_QC200_240506	May 06, 2024		Water	M24-My0035127	X
2	0066_QC201_240506	May 06, 2024		Water	M24-My0035128	X
3	0066_QC202_240507	May 07, 2024		Water	M24-My0035129	X
4	0066_QC203_240508	May 08, 2024		Water	M24-My0035130	X
5	0066_QC204_240508	May 08, 2024		Water	M24-My0035131	X
6	0066_QC205_240508	May 08, 2024		Water	M24-My0035132	X
7	0066_QC206_240508	May 08, 2024		Water	M24-My0035133	X
8	0066_QC207_240509	May 09, 2024		Water	M24-My0035134	X



ABN: 50 005 085 521

stantec Australia Pty Ltd (VIC)
Level 22, 570 Bourke Street
Melbourne
VIC 3000

Order No.:
Report #: 109
Phone:
Fax:

ABN: 91 05 0159 898

ABN: 47 009 120 549

NZBN: 9429046024954

Received: May 13, 2024 2:30 PM
 Date: May 20, 2024
 Priority: 5 Day
 Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
9	0066_QC502_240509	May 09, 2024		Water	M24-My0035135	X
Test Counts						9

Stantec Australia Pty Ltd
Level 22, 570 Bourke Street
Melbourne
VIC 3000



NATA Accredited
Accreditation Number 1261
Site Number 1254

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:

Report 1096549-W
Project name 0066 (CERBERUS)
Project ID DEF19008
Received Date May 13, 2024

Client Sample ID			0066_QC200_2 40506	0066_QC201_2 40506	0066_QC202_2 40507	0066_QC203_2 40508
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- My0035127	M24- My0035128	M24- My0035129	M24- My0035130
Date Sampled			May 06, 2024	May 06, 2024	May 07, 2024	May 08, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	0.68
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	2.1
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	12
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 1.0
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 2.4
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	%	77	93	108	71
13C5-PFPeA (surr.)	1	%	146	137	121	89
13C5-PFHxA (surr.)	1	%	138	127	115	81
13C4-PFHpA (surr.)	1	%	133	119	113	82
13C8-PFOA (surr.)	1	%	108	99	98	83
13C5-PFNA (surr.)	1	%	114	109	105	116
13C6-PFDA (surr.)	1	%	79	83	80	95
13C2-PFUnDA (surr.)	1	%	67	85	82	127
13C2-PFDoDA (surr.)	1	%	65	89	83	136
13C2-PFTeDA (surr.)	1	%	70	102	89	174
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-ethylperfluorooctanesulfonamidoacetic 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	%	104	105	106	135
D3-N-MeFOSA (surr.)	1	%	73	10	18	113

Client Sample ID			0066_QC200_2 40506	0066_QC201_2 40506	0066_QC202_2 40507	0066_QC203_2 40508
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- My0035127	M24- My0035128	M24- My0035129	M24- My0035130
Date Sampled			May 06, 2024	May 06, 2024	May 07, 2024	May 08, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	72	11	17	110
D7-N-MeFOSE (surr.)	1	%	71	91	91	165
D9-N-EtFOSE (surr.)	1	%	73	92	91	187
D5-N-EtFOSAA (surr.)	1	%	57	75	69	148
D3-N-MeFOSAA (surr.)	1	%	74	86	80	140
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 2.3
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	0.89
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 4.3
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	^{N09} 0.04	< 0.01	< 0.01	^{N09} 73
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 0.73
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	^{N09} 0.05	< 0.01	< 0.01	^{N09} 4.2
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	141	129	126	80
18O2-PFHxS (surr.)	1	%	102	108	101	68
13C8-PFOS (surr.)	1	%	105	112	114	93
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	%	142	72	82	164
13C2-6:2 FTSA (surr.)	1	%	133	79	83	163
13C2-8:2 FTSA (surr.)	1	%	68	67	60	97
13C2-10:2 FTSA (surr.)	1	%	63	83	79	138
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.09	< 0.01	< 0.01	77.2
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.05	< 0.01	< 0.01	6.6
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.09	< 0.01	< 0.01	79.6
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.09	< 0.05	< 0.05	97.68
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	103.6

Client Sample ID			0066_QC204_2 40508	0066_QC205_2 40508	0066_QC206_2 40508	0066_QC207_2 40509
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-My0035131	M24-My0035132	M24-My0035133	M24-My0035134
Date Sampled			May 08, 2024	May 08, 2024	May 08, 2024	May 09, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	0.24
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.23
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	0.02	< 0.01	1.1
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 0.20
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	^{N09} 0.01	< 0.01	^{N09} 0.57
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 0.02
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	%	95	108	113	50
13C5-PFPeA (surr.)	1	%	106	125	127	73
13C5-PFHxA (surr.)	1	%	107	141	118	75
13C4-PFHpA (surr.)	1	%	109	148	108	103
13C8-PFOA (surr.)	1	%	101	124	109	79
13C5-PFNA (surr.)	1	%	108	139	100	109
13C6-PFDA (surr.)	1	%	85	110	79	81
13C2-PFUnDA (surr.)	1	%	85	102	79	88
13C2-PFDoDA (surr.)	1	%	89	88	79	85
13C2-PFTeDA (surr.)	1	%	101	81	69	113
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	%	112	103	117	109
D3-N-MeFOSA (surr.)	1	%	104	20	121	47
D5-N-EtFOSA (surr.)	1	%	107	18	112	43
D7-N-MeFOSE (surr.)	1	%	110	87	109	80
D9-N-EtFOSE (surr.)	1	%	116	87	118	82
D5-N-EtFOSAA (surr.)	1	%	68	90	66	73
D3-N-MeFOSAA (surr.)	1	%	79	106	79	84
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	^{N09} 0.21
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	0.05
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	^{N09} 0.01	< 0.01	^{N09} 0.24
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	^{N09} 0.02	^{N09} 0.15	< 0.01	^{N09} 1.3
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	0.05
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	^{N09} 0.04	< 0.01	^{N09} 1.2
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_QC204_2 40508	0066_QC205_2 40508	0066_QC206_2 40508	0066_QC207_2 40509
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-My0035131	M24-My0035132	M24-My0035133	M24-My0035134
Date Sampled			May 08, 2024	May 08, 2024	May 08, 2024	May 09, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	121	124	126	96
18O2-PFHxS (surr.)	1	%	127	132	101	116
13C8-PFOS (surr.)	1	%	112	125	110	94
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	98	199	71	163
13C2-6:2 FTSA (surr.)	1	%	90	199	73	173
13C2-8:2 FTSA (surr.)	1	%	64	81	64	71
13C2-10:2 FTSA (surr.)	1	%	80	89	72	83
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.02	0.19	< 0.01	2.5
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	0.05	< 0.01	1.77
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.02	0.2	< 0.01	3.07
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	0.22	< 0.05	5.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	0.23	< 0.1	5.41

Client Sample ID			0066_QC502_2 40509
Sample Matrix			Water
Eurofins Sample No.			M24-My0035135
Date Sampled			May 09, 2024
Test/Reference	LOR	Unit	
Perfluoroalkyl carboxylic acids (PFCA)			
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01
13C4-PFBA (surr.)	1	%	135
13C5-PFPeA (surr.)	1	%	134
13C5-PFHxA (surr.)	1	%	118
13C4-PFHpA (surr.)	1	%	116
13C8-PFOA (surr.)	1	%	144
13C5-PFNA (surr.)	1	%	104
13C6-PFDA (surr.)	1	%	77

Client Sample ID			0066_QC502_2 40509
Sample Matrix			Water
Eurofins Sample No.			M24- My0035135
Date Sampled			May 09, 2024
Test/Reference	LOR	Unit	
Perfluoroalkyl carboxylic acids (PFCAs)			
13C2-PFUnDA (surr.)	1	%	78
13C2-PFDoDA (surr.)	1	%	76
13C2-PFTeDA (surr.)	1	%	66
Perfluoroalkyl sulfonamido substances			
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05
13C8-FOSA (surr.)	1	%	105
D3-N-MeFOSA (surr.)	1	%	15
D5-N-EtFOSA (surr.)	1	%	11
D7-N-MeFOSE (surr.)	1	%	90
D9-N-EtFOSE (surr.)	1	%	92
D5-N-EtFOSAA (surr.)	1	%	68
D3-N-MeFOSAA (surr.)	1	%	81
Perfluoroalkyl sulfonic acids (PFSA)			
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01
13C3-PFBS (surr.)	1	%	126
18O2-PFHxS (surr.)	1	%	107
13C8-PFOS (surr.)	1	%	113
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01
13C2-4:2 FTSA (surr.)	1	%	66
13C2-6:2 FTSA (surr.)	1	%	78
13C2-8:2 FTSA (surr.)	1	%	66
13C2-10:2 FTSA (surr.)	1	%	74

Client Sample ID			0066_QC502_2 40509
Sample Matrix			Water
Eurofins Sample No.			M24- My0035135
Date Sampled			May 09, 2024
Test/Reference	LOR	Unit	
PFASs Summations			
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1

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
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	May 14, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 14, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	May 14, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 14, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 13, 2024	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			



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ABN: 50 005 085 521

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ABN: 91 05 0159 898

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Perth ProMicro 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554
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Company Name: Stantec Australia Pty Ltd (VIC)
Address: Level 22, 570 Bourke Street
Melbourne
VIC 3000

Project Name: 0066 (CERBERUS)
Project ID: DEF19008

Order No.:
Report #: 1096549
Phone:
Fax:

Received: May 13, 2024 2:30 PM
Due: May 20, 2024
Priority: 5 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	0066_QC200_240506	May 06, 2024		Water	M24-My0035127	X
2	0066_QC201_240506	May 06, 2024		Water	M24-My0035128	X
3	0066_QC202_240507	May 07, 2024		Water	M24-My0035129	X
4	0066_QC203_240508	May 08, 2024		Water	M24-My0035130	X
5	0066_QC204_240508	May 08, 2024		Water	M24-My0035131	X
6	0066_QC205_240508	May 08, 2024		Water	M24-My0035132	X
7	0066_QC206_240508	May 08, 2024		Water	M24-My0035133	X
8	0066_QC207_240509	May 09, 2024		Water	M24-My0035134	X



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Company Name:	Stantec Australia Pty Ltd (VIC)	Order No.:		Received:	May 13, 2024 2:30 PM
Address:	Level 22, 570 Bourke Street Melbourne VIC 3000	Report #:	1096549	Due:	May 20, 2024
		Phone:		Priority:	5 Day
		Fax:		Contact Name:	
Project Name:	0066 (CERBERUS)				
Project ID:	DEF19008				
Eurofins Analytical Services Manager :					

Sample Detail						Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254						
9	0066_QC502_240509	May 09, 2024		Water	M24-My0035135	
Test Counts						

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 (<i>bis</i> -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	< 0.01			0.01	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 (PFTTrDA)	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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
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 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	< 0.01			0.01	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 (PFTTrDA)	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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
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	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	84			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	83			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	83			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	78			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	82			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	81			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	86			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	82			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	86			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	72			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	87			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	89			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	89			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	96			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	101			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	91			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	86			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	88			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	88			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	83			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	85			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	81			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanesulfonic acid (PFHxS)	%	85			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	90			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	80			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	67			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	87			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	91			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	96			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	88			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	88			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	85			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	81			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	85			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	84			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	88			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	89			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	85			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	68			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	86			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	93			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	93			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	100			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	94			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	94			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	88			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	90			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	88			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	87			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	87			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	88			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	99			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	86			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	74			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	93			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	97			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)	M24-My0031378	NCP	%	87			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-My0031378	NCP	%	87			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-My0029157	NCP	%	99			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-My0029157	NCP	%	85			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-My0029157	NCP	%	90			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-My0029157	NCP	%	89			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-My0029157	NCP	%	94			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-My0029157	NCP	%	91			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-My0029157	NCP	%	90			50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M24-My0031378	NCP	%	50			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-My0029157	NCP	%	98			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M24-My0029157	NCP	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-My0031378	NCP	%	94			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-My0031378	NCP	%	104			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-My0029157	NCP	%	117			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-My0029157	NCP	%	96			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-My0029157	NCP	%	88			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-My0029157	NCP	%	88			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-My0029157	NCP	%	89			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-My0029157	NCP	%	78			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-My0031378	NCP	%	78			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-My0029157	NCP	%	77			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-My0029157	NCP	%	92			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-My0029157	NCP	%	69			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-My0029157	NCP	%	87			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M24-My0029157	NCP	%	51			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-My0029157	NCP	%	87			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-My0031378	NCP	%	86			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-My0029157	NCP	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-My0029157	NCP	%	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)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-My0035128	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-My0035128	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-My0035128	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:







Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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APPENDIX

D

FIELD RECORDS AND CALIBRATION
CERTIFICATES

Event	Monitoring Well	Monitoring Well	Alternative ID	Date	Eastings	Northings	Top of Well casing elevation (mASL)	Depth to Base of Monitoring Well (m)	Depth to Groundwater (m)	Corrected Water Elevation (mASL)	Top of RB (mBTOC)	Observations	Turbidity	Temp (C)	DO (mg/L)	EC (µS/cm)	TDS ₅₀ (ppm)	pH	Et (ppm)
E10	Gauge Only	MW001	-	7/05/2024	340957.896	5751023.44	1.331	1.28	0.076	2.509	-	-	-	-	-	-	-	-	-
E10	Gauge Only	MW002	-	7/05/2024	340957.36	5751020.82	3.199	7.032	6.65	2.549	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW003	-	8/05/2024	340726.925	5750917.59	3.199	6.210	2.123	1.076	4.700	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW004	-	8/05/2024	341084.591	5751018.03	8.520	8.730	0.380	1.720	1.441	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW018	GW05-VT0069	7/05/2024	341051.077	5751979.43	10.820	8.200	6.160	1.060	7.850	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW019	GW01-VT0191	8/05/2024	341051.818	5751065.38	8.442	1.050	1.560	1.560	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW025	GW02-VT0363	8/05/2024	34301.535	5751202.03	5.182	4.280	5.85	1.332	3.950	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW028	GW01-VT0369	8/05/2024	341369.88	5751555.48	4.340	4.390	2.219	2.121	2.890	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW029	GW02-VT0365	8/05/2024	341224.44	5751114.11	3.330	4.430	1.060	1.060	2.930	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW030	GW03-VT0365	8/05/2024	341230.091	5751983.79	2.510	4.400	1.489	1.021	2.900	-	-	-	-	-	-	-	-
E10	Gauge Only	MW031	GW04-VT0365	8/05/2024	341364.957	5751063.39	5.59	5.115	4.99	1.115	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW033	GW02-VT0366	8/05/2024	341777.324	5751318.39	2.949	3.000	2.447	0.602	2.600	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW034	GW01-VT0367	8/05/2024	342039.406	5751506.44	3.099	8.600	2.36	0.739	7.600	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW038	GW01-VT0367	8/05/2024	342094.869	5751401.84	2.375	4.880	1.875	0.880	4.480	-	-	-	-	-	-	-	-
E10	Gauge Only	MW040	GW01-VT0369	7/05/2024	342016.951	5751680.69	3.385	8.8	2.345	1.040	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW041	GW02-VT0369	8/05/2024	341901.098	5751569.4	3.554	4.000	1.28	2.274	4.680	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW043	GW01-VT0370	8/05/2024	341594.131	5752133.44	6.988	8.680	5.85	1.803	7.180	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW046	GW01-VT0371	8/05/2024	341975.8	5751417	3.116	5.805	2.74	0.376	4.305	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW047	GW02-VT0371	7/05/2024	341885.4	5751412	3.204	5.720	2.58	1.413	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW051	GW01-VT0372	9/05/2024	341850.132	5751484.82	3.493	4.950	2.34	1.083	3.450	-	-	-	-	-	-	-	-
E10	Gauge Only	MW052	GW02-VT0372	7/05/2024	341851.737	5751438	2.493	4	2.06	1.517	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW053	GW03-VT0372	7/05/2024	341919.355	5751437.17	3.498	5	1.124	-	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW054	GW01-VT0373	8/05/2024	341777.114	5751477.35	8.507	12.120	7.688	0.819	10.620	-	-	-	-	-	-	-	-
E10	Gauge Only	MW056	GW03-VT0373	7/05/2024	341748.474	5751463.45	7.999	12.15	0.882	0.882	-	-	-	-	-	-	-	-	-
E10	Gauge Only	MW057	GW01-VT0375	7/05/2024	340828.96	5751184.76	8.1807	7.14	2.896	-	-	-	-	-	-	-	-	-	-
E10	Gauge Only	MW058	GW02-VT0375	7/05/2024	340831.488	5751130.06	8.403	7	5.498	-	-	-	-	-	-	-	-	-	-
E10	Gauge Only	MW060	GW01-VT0368	7/05/2024	341829.051	5751298.16	0.7	2.84	1.625	-0.925	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW061	MW44R	8/05/2024	341585.672	5752147.01	7.000	8.830	4.63	0.230	7.430	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW062	MW45R	8/05/2024	341580.854	5752142.2	7.000	8.850	4.656	2.364	7.350	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW063	MW0115R	8/05/2024	341248.931	5751929.24	10.950	10.620	7.92	3.030	9.120	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW102R	8/05/2024	341207.342	5752051.88	10.500	7.920	1.62	0.62	-	-	-	-	-	-	-	-	-	-
E10	Gauge Only	MW065	MW101R	7/05/2024	341205.744	5752191.85	10.86	8.828	3.240	-	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW067	-	8/05/2024	341109.33	5751942.47	9.310	9.570	5.955	3.355	8.070	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW068	-	8/05/2024	342077.93	5751951.38	9.949	6.800	2.465	-14.616	3.360	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW069	-	9/05/2024	341607.95	5751818.86	8.530	8.900	0.370	0.370	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW070	-	7/05/2024	341698.74	5751784.65	9.670	8.840	8.236	4.350	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW071	-	8/05/2024	341604.26	5751807.19	9.570	10.200	5.498	1.157	9.000	-	-	-	-	-	-	-	-
E10	Gauge Only	MW073	-	7/05/2024	341072.498	5751964.52	9.799	9.7	6.69	3.109	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW074	-	8/05/2024	341165.888	5751847.66	11.614	9.870	8.804	1.634	8.360	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW075	-	8/05/2024	341147.945	5752029.66	12.520	13.060	9.812	3.108	11.560	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW102	-	8/05/2024	340171.784	5751961.69	9.394	14.054	2.654	2.654	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW109	-	8/05/2024	341535.165	5751847.19	10.377	8.969	8.823	1.454	8.960	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW110	-	8/05/2024	342096.016	5752093.77	2.890	5.430	1.745	1.145	3.930	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW112	-	8/05/2024	341456.313	5751882.43	10.969	11.000	1.389	8.700	1.020	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW117	-	7/05/2024	340960.544	5752087.85	11.779	9.940	8.425	3.354	8.750	-	-	-	-	-	-	-	-
E10	Gauge Only	MW118	-	7/05/2024	340728.78	5751923.64	2.865	8.132	2.47	0.607	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW121	-	7/05/2024	341073.268	5751796.65	9.869	4.970	1.032	4.450	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW1220	-	8/05/2024	341111.103	5751681.26	1.954	6.800	0.437	1.467	4.550	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW1221	-	8/05/2024	341111.278	5751680.46	1.431	1.060	1.51	1.060	1.950	-	-	-	-	-	-	-	-
E10	Gauge Only	MW201	-	7/05/2024	341881.08	5752296.14	11.04	9.775	0.585	0.519	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW202	-	8/05/2024	340268.23	5752526.2	12.390	11.070	7.595	1.795	9.570	-	-	-	-	-	-	-	-
E10	Gauge Only	MW203	-	7/05/2024	340996.62	5752124.87	16.5	11.78	1.78	1.78	3.84	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW204	-	8/05/2024	33977.39	5753343.23	13.740	11.450	4.925	8.815	10.400	-	-	-	-	-	-	-	-
E10	Gauge Only	MW205	-	7/05/2024	340157.91	5753343.77	7.68	10.613	1.23	6.567	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW206	-	8/05/2024	340888.24	5753364.79	4.752	12.050	1.923	3.420	11.080	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW207	-	7/05/2024	342279.48	5752784.17	6.200	11.800	6.11	10.840	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW208	-	7/05/2024	342053.22	5753230.39	7.699	11.980	2.945	2.945	10.980	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW209	-	7/05/2024	341589.27	5753229.03	13.440	11.640	9.65	3.790	10.640	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW210	-	8/05/2024	340201.85	5752021.62	14.260	13.200	1.470	6.350	1.270	-	-	-	-	-	-	-	-
E10	Gauge Only	MW211	-	7/05/2024	340446.47	5751337.35	9.02	11.872	6.289	2.031	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW212	-	7/05/2024	341004.49	5751715.9	3.360	3.160	0.908	0.452	2.160	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW213	-	7/05/2024	341053.883	5751701.140	1.371	2.140	0.962	0.460	2.140	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW2140	-	7/05/2024	341178.498	5751864.73	8.361	5.900	5.399	2.962	5.500	-	-	-	-	-	-	-	-
E10	Gauge Only	MW2145	-	7/05/2024	341177.442	5751863.78	8.361	5.900	5.399	2.962	5.500	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW2150	-	7/05/2024	341222.982	5751803.37	9.248	12.370	6.234	3.014	11.370	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW2156	-	7/05/2024	341221.908	5751803.5	9.261	9.900	6.23	3.031	8.000	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW2170	-	8/05/2024	340887.743	5750873.34	4.731	8.136	8.136	8.136	-	-	-	-	-	-	-	-	-
E10	Gauge Only	MW2175	-	7/05/2024	340887.527	5750874.21	4.763	9	3.315	1.448	-	-	-	-	-	-	-	-	-
E10	Gauge and Sample	MW218	-	8/05/2024	340948.59	5750947.27	4.948	10.650	2.285	2.663	9.600	-	-	-	-	-	-	-	-

Event	Location ID	Date	Easting	Northing	Survey Point Height (mAHD)	Sample depth (m)	Water Depth (m)	Flow	Dissolved Oxygen (DO-mg/L)	Electrical Conductivity (EC-µS/cm)	TDS	pH	Redox Potential (Eh-mV)	Temperature (°C)	Turbidity	Water Colour	Observations
E10	SW001	6/05/2024	341794.4	5751279.772	0.595	0.2	less than 1m	No	3.35	2103	1366.95	8.44	-43.3	17.7	No	Clear	Sampled in outlet pit during slack tide
E10	SW002		341821.28	5751285.756	1.757	-	-	-	-	-	-	-	-	-	-	-	Dry, still dry after overnight rainfall on 10.5
E10	SW003	9/05/2024	342117	5751488	1.884	0.1	boat ramp	No	1.91	91309	59350.85	7.71	-33.9	16.9	No	Clear	Surface water sheen reforms after disturbance
E10	SW004		341707.4	5751299.772	1.72	-	-	-	-	-	-	-	-	-	-	-	-
E10	SW005	9/05/2024	341921	5751282	1.412	0.1	0.5	Low	1.65	764	496.6	6.93	-107.8	17.3	Low	Light brown	Sampled at stormwater drain pits north of SW005
E10	SW006		341977.22	5751269.577	1.032	-	-	-	-	-	-	-	-	-	-	-	-
E10	SW007	9/05/2024	342106.1	5751592.58	1.384	0.3	0.5	No	3.17	87724	57020.6	7.58	-44.6	15.6	No	Clear	Sheen reforms after disturbance
E10	SW009	8/05/2024	342086.46	5752224.549	1.256	0.05	0.1	No	2.3	92026	59816.9	7.29	-33.8	17	No	Clear	Sampled during slack tide
E10	SW010	8/05/2024	341962.45	5752298.439	1.573	0.15	0.4	No	2.43	2929	1903.85	6.26	-53.9	14.1	Low	Slightly cloudy	Organic sheen on water body surface, orange brown color and turbidity on surface of water
E10	SW014	9/05/2024	340877.04	5750817.091	2.607	0.2	Unknown	No	2.34	7758	5042.7	7.15	68	15	No	Clear	Pond
E10	SW015	9/05/2024	340859.63	5750871.323	2.868	0.1	Unknown	No	5.99	7523	4889.95	7.28	63.1	15.5	Low	Clear	-
E10	SW016	9/05/2024	340888.6	5750902.178	2.833	0.2	Unknown	No	5.19	2008	1305.2	7.04	91.4	15.7	No	Clear	Pond
E10	SW017	9/05/2024	340883.24	5750867.987	0.975	0.1	0.3	No	3.92	43152	28048.8	6.92	123.7	14.8	No	Clear	Tidal creek at high tide
E10	SW018	9/05/2024	342124.08	5752036.004	1.551	0.15	0.3	Low	2.47	77582	50428.3	7.52	-47.5	16.1	No	Clear	-
E10	SW019	9/05/2024	342018.59	5752069.81	2.289	0.1	0.2	No	3.96	634	412.1	6.6	-54.4	15.1	Low	Slightly cloudy with suspended particles	-
E10	SW020	7/05/2024	342142.1	5752170.473	1.921	0.15	0.3	Low	4.57	45232	29400.8	7.28	93	18.8	No	Clear	-
E10	SW021		340840.23	5753416.412	6.115	-	-	-	-	-	-	-	-	-	-	-	Dry - checked both upstream and downstream 8
E10	SW022	8/05/2024	340204.21	5753355.732	9.152	0.1	0.2	No	5.62	2705	1758.25	7.15	109.6	12	No	Brown clear	Sheen on top of water - appears organic
E10	SW023	9/05/2024	340770.2	5750735.589	2.357	0.05	0.1	No	5.43	5349	3476.85	6.86	69.3	13.6	Low	Clear	Organic sheen on surface
E10	SW024	9/05/2024	340232.56	5752094.315	2.956	0.02	Unknown	No	6.16	1301	845.65	7.21	8.5	13.9	Low	Clear	Algae and sheen on surface of water
E10	SW027	7/05/2024	341264.29	5751459.155	1.989	0.05	0.1	Medium	6.49	24856	16156.4	7.12	71.5	15.1	Low	Clear slight brown	Low falling tide at 4:00pm
E10	SW028	8/05/2024	341139.09	5751567.183	1.417	0.1	Unknown	Medium	5.12	39815	25879.75	7.63	92.9	16	No	Clear slight cloudy	Sampled slightly downstream of location due to access
E10	SW029	10/05/2024	341351.41	5751651.454	NS	0.15	0.25	Low	3.09	178.4	115.96	6.64	-95.7	16.1	No	Clear	Dry 8.5.24, sampled after overnight rainfall on 10.5.24
E10	SW030	10/05/2024	341351.41	5751651.454	4.525	0.15	0.25	Low	3.4	163.4	106.21	6.82	-95.9	16.2	No	Clear	sampled after overnight rainfall on 10.5.24
E10	SW057	9/05/2024	340916.33	5750734.003	2.992	0.1	Unknown	No	5.06	8040	5226	7.2	73.3	15	Medium	Clear black	Algae in water
E10	SW071	9/05/2024	342129.89	5751427.393	NS	0.3	unknown	No	2.88	46826	30436.9	7.73	-38.8	16.4	No	Clear	-
E10	SW072	10/05/2024	341073.54	5752078.098	NS	0.1	0.2	No	2.58	155	100.75	6.72	-48.8	15.9	No	Clear	Dry 9.5.24, sampled after overnight rain on 10.5.24
E10	SW073	8/05/2024	341468.19	5752520.047	NS	0.05	0.05	No	3.2	343.5	223.275	6.41	-38.2	13.5	High	Cloudy with black suspended particles	Low water elevation sampled in pool of water with high turbidity. restricted access due to vegetation
E10	SW074	8/05/2024	341248.43	5752439.637	NS	0.15	0.2	No	2.74	1068	694.2	6.56	-97.2	13.2	Low	Clear with suspended particles	Slight sheen on surface water body
E10	SW075	8/05/2024	341885.01	5752373.629	NS	0.1	0.15	No	5.8	697	453.05	7.1	-6.1	15	No	Clear	Sample taken from drain culvert standing water
E10	SW076	8/05/2024	342059.52	5752222.267	NS	0.2	0.35	Low	3.45	80411	52267.15	6.97	-25.7	18	Low	Cloudy	Sheen on surface water body, Sheen brakes disperses and reforms after disturbance
E10	SW077	9/05/2024	342082.59	5752021.747	NS	0.15	0.15	Low	1.91	1825	1186.25	6.53	-64.2	15.9	No	Clear	-
E10	SW078	9/05/2024	342104.49	5751639.557	NS	0.15	0.5	No	4.47	25661	16679.65	6.64	-43.8	17	No	Clear	When disturbed Sheen quickly reforms, foaming present
E10	SW090	6/05/2024			NS	0.2	0.4	No	3.44	14682	9543.3	7.34	-29.2	20.2	No	Clear	Low water elevation. no apparent recent rainfall shallow water

Equipment Calibration Report

YSI ProPlus Water Quality Meter

This YSI ProPlus Water Quality Meter has been performance checked as per the manufacturer's guidelines¹.

Unit Type: YSI ProPlus / YSI ProPlus Quattro

Serial Number: _____

The unit has been checked for and comprises of the following items:

Item	Present	Damaged or Absent
Carry case	☒	☐
Attached sensors (x4)	☒	☐
Spare Batteries	☒	☐
Connector Cable	☒	☐
Instruction Manual	☒	☐

The following tests and operational checks have been conducted on the unit:

Item	Test Completed	Test Passed
WQM unit electrodes cleaned and checked	☒	☒
Operations check (screen functions)	☒	☒
Temperature check	☒ 15.6	☒

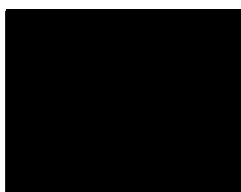
Calibration:

Sensor	Cal. Solution	Value	Reading
pH	pH: Buffer Solution 4.00	4.00	4.00
pH	pH: Buffer Solution 7.00	7.00	7.02
pH	pH: Buffer Solution 10.00	10.00	10.00
Redox	Standard ORP solution	251 mV @ 15 °C	mV @ 15.6 °C
O ₂	Ambient Air for 100% Dissolved Oxygen	100%	✓
O ₂	Sodium Sulphate for 0% Dissolved Oxygen	0%	✓
Conductivity	Standard Conductivity Solution	10430 µS/cm @ 15 °C	10385 µS/cm @ 15.6 °C

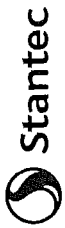
Calibrated by:

Signed:

Date:



¹ YSI Professional Plus – Calibration Tips; Rev A, December 2010.



Equipment Bump Test Record
YSI ProPlus Water Quality Meter

Project Management
YSI Bump Test Record

Date of Bump Test	Job Number	Unit No. Brand/Model	Ambient Air Oxygen Calibration	Zero % Oxygen Solution Calibration	Standard Concentrations (Y if present)	Ambient Temperature (°C)	Bump Test Readings	Bump Test Readings within ±5%?	Comment	Test by (Name)	(Signature)
7-5	0066	YSI Pro Plus (Online YSI level number: 39HJ02185)	100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 262 mV @ 10 °C ☒ Y/N	11.4	PH 4.00: 4.02 PH 7.00: 7.01 PH 10.00: 10.00 EC: 2.16 µS/cm @ 11 °C ORP: 258 mV @ 11 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
8-5	0066		100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 262 mV @ 10 °C ☒ Y/N	11.3	PH 4.00: 4.01 PH 7.00: 6.97 PH 10.00: 10.00 EC: 2.16 µS/cm @ 11 °C ORP: 258 mV @ 11 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
9-5	0066		100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N	14.2	PH 4.00: 4.05 PH 7.00: 7.06 PH 10.00: 10.00 EC: 2.16 µS/cm @ 14 °C ORP: 254 mV @ 14 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
10-5	0066		100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N	16.0	PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
			100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N		PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
			100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N		PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
			100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N		PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
			100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N		PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
			100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N		PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			
			100% Saturation? ☒ Y/N	0% Calibration ☒ Y/N	PH 4.00 ☒ Y/N PH 7.00 ☒ Y/N PH 10.00 ☒ Y/N EC: 2.16 µS/cm @ 15 °C ☒ Y/N ORP: 251 mV @ 15 °C ☒ Y/N		PH 4.00: 4.00 PH 7.00: 7.00 PH 10.00: 10.00 EC: 2.16 µS/cm @ 16 °C ORP: 252 mV @ 16 °C	☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N ☒ Y/N			

Equipment Calibration Report

YSI ProPlus Water Quality Meter

This YSI ProPlus Water Quality Meter has been performance checked as per the manufacturer's guidelines¹.

Unit Type: YSI ProPlus / YSI ProPlus Quattro

Serial Number: _____

The unit has been checked for and comprises of the following items:

Item	Present	Damaged or Absent
Carry case	☒	☐
Attached sensors (x4)	☒	☐
Spare Batteries	☒	☐
Connector Cable	☒	☐
Instruction Manual	☒	☐

The following tests and operational checks have been conducted on the unit:

Item	Test Completed	Test Passed
WQM unit electrodes cleaned and checked	☒	☐
Operations check (screen functions)	☒	☒
Temperature check	☒	☒ 14.2

Calibration:

Sensor	Cal. Solution	Value	Reading
pH	pH: Buffer Solution 4.00	4.00	3.95
pH	pH: Buffer Solution 7.00	7.00	7.06
pH	pH: Buffer Solution 10.00	10.00	10.01
Redox	Standard ORP solution	251 mV @ 15 °C	251.5 mV @ 15.2 °C
O ₂	Ambient Air for 100% Dissolved Oxygen	100%	100
O ₂	Sodium Sulphate for 0% Dissolved Oxygen	0%	0.01
Conductivity	Standard Conductivity Solution	12480 µS/cm @ 15 °C	12479 µS/cm @ 15.4 °C

Calibrated

Signed

Date: 6/5/24

¹ YSI Professional Plus – Calibration Tips; Rev A, December 2010.



Equipment Bump Test Record
YSI ProPlus Water Quality Meter

Project Management
YSI Bump Test Record

Date of Bump Test	Job Number	Unit No. Brand/Model	Ambient Air Oxygen Calibration	Zero % Oxygen Solution Calibration	Standard Concentrations (if present)	Ambient Temperature (°C)	Bump Test Readings	Bump Test Readings within ±5%?	Comment	Test by (Name)	(Signature)
7/5	3043-014	YSI Pro Plus (Cordless YSI serial number: 38H02155)	100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C	14.7	PH 4.00: 3.93 PH 7.00: 7.53 PH 10.00: 10.14 EC: 153.5 µS/cm @ 15.0 °C ORP: 25.1 mV @ 15.0 °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)	PH Read		
8/5	1		100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: 153.5 µS/cm @ 15.0 °C ORP: 25.1 mV @ 15.0 °C	15.2	PH 4.00: 4.19 PH 7.00: 7.13 PH 10.00: 10.15 EC: 153.5 µS/cm @ 15.0 °C ORP: 25.2 mV @ 15.0 °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
9/5	11		100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: 153.5 µS/cm @ 15.0 °C ORP: ____ mV @ ____ °C	13.0	PH 4.00: 3.93 PH 7.00: 7.06 PH 10.00: 10.11 EC: 153.5 µS/cm @ 15.0 °C ORP: 22.2 mV @ 15.0 °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			
			100% Saturation?	0% Calibration	PH 4.00 PH 7.00 PH 10.00 EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C		PH 4.00: ____ PH 7.00: ____ PH 10.00: ____ EC: ____ µS/cm @ ____ °C ORP: ____ mV @ ____ °C Temp: ____ °C	PH 4.00: (± PH 0.2) PH 7.00: (± PH 0.2) PH 10.00: (± PH 0.2) EC: (± 150µS/cm) ORP: (± 10mV) Temp: (± 2°C)			

F3.01 – Quality Control Sample Register

Project Details

Project Name: Cerberus PFAS OMP

Job Number: DEF19008

Site Address: HMAS Cerberus

PP/PM: [REDACTED]

Client Company/Contact: Cardno

Date:07/12/2023

Persons Present: [REDACTED]

Notes By XXXXXXXXXX

Quality Control Requirements

Standard QC Sample Requirements (see Proposal for project specific details)

Rinsate Blank: 1/day (even if only placed on hold)

DI Water Blank: 1/day (even if only placed on hold)

Trip Blank: 1/day or 1/esky (if volatiles are suspected or present at site)

Blind Replicate (Primary List): 1 in 20 primary samples

Split Replicate (Secondary List): 1 in 20 primary samples

Labelling

Samples to be labelled **QC##_date** where “##” is a numerical sequence commencing at **01** for each field event and **date** is the date of sampling in ddmmyyyy format (e.g. **QC01_03112010**)

[illegible]

APPENDIX

E

DATA QUALITY REVIEW

Data Quality Review

HMAS Cerberus, VIC, 3920

This Appendix reviews the Quality Assurance (QA) and Quality Control (QC) documentation. Quality assurance encompasses the actions, procedures, checks and decisions undertaken to ensure sample integrity and representativeness, and the reliability and accuracy of analysis results. The QA documentation should also include an indication of the Data Quality Objectives sought in relation to each significant action, test or process involved in the Assessment.

QC activities measure the effectiveness of the QA procedures by undertaking testing, and then comparing results to previously established objectives. QC work will include the internal laboratory testing as well as results of QC samples submitted such as trip blanks and duplicates. The quality of the information and/or data is deemed satisfactory when the QC results demonstrate that agreed objectives have been met.

Cardno, now Stantec undertook a review of its QA/QC as part of the data validation exercise. The findings are summarised below.

QA/QC Aspects	Evidence and Evaluation
QA Documentation	
Sampling and Analysis Quality Plan and Data Quality Objectives	Cardno, now Stantec was engaged by Department of Defence (the client) to carry out the PFAS Ongoing Monitoring Plan (OMP) of HMAS Cerberus, VIC, 3920 (the site). The monitoring event commenced on 6 May 2024 until 10 May 2024 and is in general accordance with the scope and limitations presented in Cardno, now Stantec's Sampling and Analysis Quality Plan (SAQP) of 18 April 2024 (issued draft) (Our Ref: 20230623_OMP002.6.2_Cerberus_SAQP_Rev10). The assessment was carried out in general compliance with the following: ▪ Australian Standard AS 4482-2005 Guide to the investigation and sampling of sites with potentially contaminated soils, Part 1 - Non-volatile and semi-volatile compounds (withdrawn, but referred to for state of knowledge). ▪ Department of Defence (2021), Contamination Management Manual (DCMM), Annex L – Data Management, August 2019, Amended June 2021. ▪ Department of Defence (2019b), Pollution Prevention Management Manual – Annex 1L: Pollution Prevention Guidance - Routine Water Quality Monitoring. ▪ Department of Defence, Department of Energy (2018), Quality System Manual Schedule B15 USEPA DQO Process. ▪ EPA Victoria (2009), Industrial Waste Resources Guidelines, Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, Publication 701. ▪ Heads of Environmental Protection Authority's Australia and New Zealand (HEPA) (2020), PFAS National Environmental Management Plan (NEMP) Version 2.0, January 2020. ▪ National Environment Protection Council (NEPC), 1999, National Environmental Protection (Assessment of Site Contamination) Measure (as amended 2013) (ASC NEPM). ▪ National Health and Medical Research Council (NHMRC) (2019), Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water, August 2019. ▪ USEPA (2006), Guidance for the Data Quality Objectives Process (EPA QA/G-4). A quality control program was implemented during the investigation and the quality assurance procedures used have been reiterated in the report.

QA/QC Aspects	Evidence and Evaluation
	The investigation was carried out in accordance with the Safe Work method Statements (SWMS) and Health, Safety and Environmental Management Plan (HSEMP) for the site. Detailed work plans were also provided for each phase of investigation and are outlined in the SAQP. The Data Quality Objectives were expressed in terms of the purpose of the assessment and the relevant assessment criteria.
Data Validation Report	This review constitutes a data validation review. This was supported by an ESdat generated "QAQC Checker" excel report, summarised in Table B3, Appendix B.
Data Representativeness	
Holding Times	Groundwater and surface water sample analysis holding times were in conformance with EPA Publication IWRG701 2009 ' <i>Sampling and Analysis of Waters, Wastewaters, Soils and Wastes</i> '.
Background Samples	No background samples were collected as part of this assessment.
Equipment Decontamination	The decontamination methodology conducted during this investigation is documented in the body of the report, and was in general conformance with the SAQP. Reusable equipment (e.g. interface meter, water quality meter, telescopic pole) was rinsed with Liquinox® and deionised water after use between each location.
Laboratory Re-analysis	Laboratory re-analysis was requested to confirm first-time detections, new exceedances and/or order of magnitude increases at the following locations: MW019, MW043, MW071, MW121, MW215S, SW010, SW018, SW015, SW028, SW075 and SW077. All reanalysis results were found to be consistent with the original results.
Data Precision and Accuracy	
QC Testing – Blind Replicates (Primary Lab)	Groundwater ▪ Acceptance Criteria: RPD < 30% ▪ Groundwater Samples Analysed: 48 ▪ Blind Replicate Samples Analysed: 5 ▪ Blind Replicate Analyte Pairs: 140 (excludes 'analytes' that are a summation of other analytes) ▪ Number of Analyte Pairs Exceeding Criteria: 0 ▪ Percentage of Analyte Pairs Exceeding Criteria: 0% There were no RPD exceedances observed. The RPD results are presented in Table B3, Appendix B. Surface water ▪ Acceptance Criteria: RPD < 30 % ▪ Surface water Samples Analysed: 30 ▪ Blind Replicate Samples Analysed: 3 ▪ Blind Replicate Analyte Pairs: 84 (excludes 'analytes' that are a summation of other analytes) ▪ Number of Analyte Pairs Exceeding Criteria: 0 ▪ Percentage of Analyte Pairs Exceeding Criteria: 0% There were no RPD exceedances observed. The RPD results are presented in Table B3, Appendix B.
QC Testing – Field Splits (Secondary Lab)	Groundwater ▪ Acceptance Criteria: RPD < 30% ▪ Groundwater Samples Analysed: 48 ▪ Blind Replicate Samples Analysed: 5 ▪ Blind Replicate Analyte Pairs: 140 (excludes 'analytes' that are a summation of other analytes) ▪ Number of Analyte Pairs Exceeding Criteria: 6

QA/QC Aspects	Evidence and Evaluation
	- Percentage of Analyte Pairs Exceeding Criteria: 4.29% The RPD exceedances observed were generally minor and likely attributed to the low concentration of analyte pairs. This is not considered to impact the results of the investigation. RPD results are presented in Table B3, Appendix B. Surface water - Acceptance Criteria: RPD < 30 % - Surface water Samples Analysed: 30 - Blind Replicate Samples Analysed: 3 - Blind Replicate Analyte Pairs: 84 (excludes 'analytes' that are a summation of other analytes) - Number of Analyte Pairs Exceeding Criteria: 11 - Percentage of Analyte Pairs Exceeding Criteria: 13.1% The RPD exceedances observed were generally minor and likely attributed to the low concentration of analyte pairs. This is not considered to impact the results of the investigation. RPD results are presented in Table B3, Appendix B.
Trip Blanks	Three trip blanks were collected, and laboratory tested for PFAS. All analytes were reported below the limit of reporting (LOR). Trip blank results are presented in Table B4, Appendix B.
Laboratory Internal QC	Evidence of the laboratories internal QC testing is present and complete. Both ALS (the primary laboratory) and Eurofins-mgt performed internal QC with adequate testing and mostly satisfactory results for matrix spikes, method blanks and laboratory duplicates. Exceptions include laboratory report EM2407537: EM2407537-020 did not determine a matrix spike recovery as background levels were greater than data quality objective for select PFAS compounds. These exceptions are not considered to impact the results of the investigation.
Laboratory Method Detection Limit	Laboratory reports indicate the method detection limits were generally lower than the respective assessment criteria.
NATA endorsement of laboratory reports	Laboratory reports were stamped with the NATA endorsement stamp and signature. Laboratory reports are included in Appendix C of this report.
Calibration of Field Equipment	All field equipment used was calibrated by the field personnel. Certificates are included in Appendix D of this report. Additionally, daily bump tests were performed of the water quality meter throughout the monitoring event.
Decontamination and Equipment Blanks	Five rinsate blanks were collected during the investigation. Rinsate blank samples were tested for PFAS which all reported a concentration below the laboratory LOR. Results are shown in Table B4, Appendix B.
Data Comparability	
Full Review of Data	Once all results have been received, Cardno, now Stantec undertook full review of the data for any anomalies in consideration of historical data at each location (where available), such as first-time detections or new exceedances being reported at locations which have not had detections or exceedances previously. Where potentially anomalous data is identified or suspected, further confirmatory measures were undertaken such as re-extraction and reanalysis of the sample by the laboratory and/or additional data quality review. A total of 11 samples were requested for re-extraction and reanalysis as listed above. The instrument runs were reviewed by the laboratory and the results reconfirmed by reanalysis from a second sample bottle. The original results for all samples were confirmed.
Standard Procedures	Fieldwork procedures are detailed in the report and followed the work methods outlined in the SAQP.

QA/QC Aspects	Evidence and Evaluation
Qualified Personnel	Staff involved in managing and reviewing the project and those involved in fieldwork are qualified personnel.
Volatile Losses	Volatile losses are not applicable to PFAS.
Sample Integrity	Field Chain of Custody forms are included in Appendix C of this report and demonstrate sample integrity.
Data Completeness	
Completeness of Test Program	The scope of work undertaken was generally consistent with that set out in the SAQP. Variations to the SAQP are detailed in the Factual Report.
Validity of Data Set	The data quality review indicates no significant systematic errors in the data collection process for surface water and groundwater and therefore, the data set used as the basis for the assessment is considered valid and complete.

APPENDIX

F

INFORMATION ABOUT ENVIRONMENTAL REPORTS

About Site Environmental Assessment Reports

1. Introduction

This document explains the Environmental Site Assessment (ESA) process and the context that applies to the use of Environmental Reports issued by Cardno now Stantec.

2. What is an ESA?

Environmental Site Assessments (ESA) are undertaken for a range of purposes, specific to the brief issued by the client in each case. The scope may include one or a combination of any of the following:

- ☐ A factual report of the condition of a portion of the site or one aspect of an entire site.
- ☐ Assessment of the contamination levels in soil to be removed from a site – a waste classification assessment.
- ☐ Validation of the success of remediation of a site or a portion of a site.
- ☐ Provision of a professional opinion about the suitability of a site for one or more uses, in terms of its contamination status.

The scope of any ESA needs to be defined at the outset.

An ESA is not an Environmental Audit. Such audits are undertaken in accordance with the provisions of regulations enacted in various states of Australia, and are referred to as Site Audits in some jurisdictions. Statutory audits provide certification by EPA accredited auditors that a site is suitable for one or more uses. An ESA may provide similar advice but cannot be used in place of an audit if the latter is required by regulation in any instance. However in some circumstances and jurisdictions an ESA is sufficient to provide “environmental sign-off” of a site.

An ESA may be undertaken for due diligence purposes, to establish whether the site has been impacted to the extent that some beneficial uses of the site may be precluded. Due diligence audits in many cases may be completed as non-statutory Audits, although in some jurisdictions they can also be statutory audits, if defined as such at the outset.

3. The ESA Process

The Client generally initiates the ESA process by specifying a brief which identifies the specific objectives of the assessment. If not, it is the consultants' duty to so specify the ESA

In the case of an ESA to provide an opinion about the suitability of the site for use, it would be conducted in accordance with NEPM (Site Assessment). Such ESA would not commence until a thorough site history assessment (Phase 1 Assessment: to identify the potential for significant contamination at a site) is conducted. However, where the history is unclear, a broad screening of chemical parameters can be used to test environmental media. This normally includes a broad range of organic and inorganic compounds and elements, often referred to as an Environmental Screen.

(In the case of an ESA for a purpose other than to provide an opinion about the suitability of the site for use, it is not always necessary to undertake a Phase 1 assessment.)

The ESA requires sampling of soil at representative locations across the site. A NATA accredited laboratory performs the analysis of soil. It is impractical for all of the soil to be assessed. The ESA is often based on a statistical method of grid or random sampling, augmented by targeted sampling at locations known or suspected to be contaminated. Guidance on sampling strategy and density is provided in Australian Standard AS4482.1–2005. However, some considerable degree of judgement is still required in the application of any sampling and testing strategy. For example the blanket application of the “hot spot” method presented in this standard is often inappropriate given its limitations.

The field program also investigates the likelihood of contamination below the site surface. Field investigations must sample and test fill as well as the natural soils. If contamination is found then it is common for further work to be undertaken to characterise, to the extent practical, its vertical and horizontal extent. However, where fill is encountered and testing shows it to be uncontaminated, it must be realised that the heterogeneous nature of the material might mean that not all pockets of contaminated material can be detected using normal sampling regimes.

EPA guidelines for auditors, that may be relevant for an ESA, indicate the need in all cases to consider the potential for groundwater contamination in any site. This does not mean all sites need to be drilled to sample groundwater, but it is most often the case. Most hydrogeological settings and groundwater conditions are complex and vary in space and time. The condition of groundwater is investigated to identify if any beneficial use or environmental value of groundwater is precluded due to contamination.

As previously stated for soil, all groundwater at the site cannot be tested. The environmental investigations are conducted in accordance with industry standards and guidelines (e.g. EPA Vic Pub 668). This provides a level of confidence that a sufficiently comprehensive assessment of the groundwater at the site is achieved.

Where an investigation shows that groundwater is polluted, consideration should be given to assessing the risks and the need for and practicality of any clean up.

4. Environmental Assessment Report

The ESA Report details the findings of the ESA. It provides summary information on the site definition, the reasons for the assessment and other relevant facts. It reviews the scope and quality of the site investigations, laboratory testing and data analyses undertaken. These reports also present a review of the contamination status of the site, the need for any further clean up, and an opinion on the suitability of the site for a range of beneficial uses and land uses such as “residential – low density”, “commercial” etc, as appropriate.

However, as noted above, some ESA have a narrow scope such as for classification of waste soil for removal from site, and do not make conclusions on suitability of site for use.

The ESA Report generally includes copies of other documents and reports, necessary to support the assessment findings, presented as appendices. These can contain more detailed information than the body of the ESA Report. Care should be taken to also read the appended documents and the ESA report in full.

Cardno now Stantec generally issues reports in electronic form (e-Report) on CD ROM. ESA Reports are issued in this format as Adobe Acrobat™ PDF files. However, a paper copy of the executive summary of the ESA Report is generally issued to the client, and others as required by the brief or by regulation.

5. Limitations of Environmental Assessment Report

The ESA Report is prepared in a manner that can be easily read by a lay person with a legitimate interest in the contamination status of the site, such as the site owner or occupier, EPA and Local Planning Authority. The ESA report is not intended for use by other parties or for other purposes. Anyone who uses the assessment report for purposes other than specified in the report, does so at their own risk.

The site should only be used for one or more of the beneficial uses and land uses identified in the ESA as suitable.

The conditions and qualifications may apply to the suitability of the site for use, and it is the responsibility of the Client to be cognizant of and accept these in accepting the report. Cardno now Stantec are only responsible for the issuing of the ESA report but accepts no liability for the costs incurred in the implementation of ESA findings.

The ESA provides a “snapshot” of the site conditions at the time of the site investigation. Consequently, the report may not be valid at a later time if there has been any change to the contamination status of the site in that time. Verification of the status of the site may be required in cases where a significant time has elapsed, or site conditions have changed since the assessment and audit.

The ESA is necessarily limited by constraints such as time, cost and available information; although normal professional practice at the time has been applied with all due care to prepare the report. A necessary requirement of this process is the horizontal and vertical interpolation of data from discrete locations. However, site conditions are generally not homogenous and some discrepancies will occur between the actual and predicted results at locations not directly sampled. There is a risk that contamination may occur at the site and not be identified by a competent investigation and assessment. The approach adopted in sampling (a combination of statistically based grid and judgmental sampling) seeks to reduce, but cannot eliminate, this risk.

Where unexpected occurrences of contamination arise, subsequent to the issue of the ESA Report, Cardno now Stantec should be permitted to make an interpretation of these facts in relation to the ESA Report findings. Consequently, the Client should inform Cardno now Stantec and seek their opinion. Cardno now Stantec accepts no liability for costs incurred due to such unexpected

occurrences, given the inherent uncertainties in the assessment process.

Cardno now Stantec uses information provided by other parties as the basis for the ESA, and reliance on this information is at the discretion of Cardno now Stantec. However, however Cardno now Stantec cannot guarantee any of the facts, findings or conclusions presented by other parties. Cardno now Stantec will not be liable for the use of information, provided by others that is subsequently found to be intentionally misleading.

The ESA Report is not and does not purport to be anything other than a contaminated land ESA. It is not a geotechnical report and bore logs reproduced are for interpretation of the likely distribution of contamination. They are not intended for geotechnical interpretations and may not be adequate for this purpose.

The ESA Report is not intended to be a comprehensive analysis of the presence and associated risk of asbestos in buildings and services. Where asbestos in buildings and services is known or likely, the report may only caution that an appropriately qualified person be engaged to undertake demolition to avoid contamination of the site.

Cardno now Stantec

19 August 2022

Appendix E JBS&G OMP sampling event report – November 2024 (JBS&G 2024)



HMAS Cerberus – PFAS OMP Biannual Sampling Event Report November 2024

Department of Defence

Report

JBS&G | 66022 | 164,750

22 May 2025





We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.

Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte



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Abbreviations

Term	Definition
AFFF	Aqueous Film Forming Foam
ANZG	Australian and New Zealand Guidelines
AS/NZS	Australian/New Zealand Standards
COC	Chain of Custody
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
DEECA	Department of Energy, Environment and Climate Action
DO	Dissolved Oxygen
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EDMS	Environmental Data Management Software
EPA	Environment Protection Authority Victoria
EtFOSA	N-Ethyl perfluorooctane sulfonamide
FTG	Fire Training Ground
FTS	Fluorotelemer Sulfonic Acid
Ha	Hectares
HEPA	Heads of Environmental Protection Authority's Australia and New Zealand
HSEMP	Health, Safety and Environmental Management Plan
IA	Investigation Area
JBS&G	JBS&G Australia Pty Ltd
LCS	Laboratory Control Sample
m AHD	metres Australian Height Datum
m BGL	Metres below ground level
MeFOSAA	N-Methyl perfluorooctane sulfonamidoacetic acid
mg/L	Milligrams per litre
mm	millimeters
NATA	National Association of Testing Authorities
NEMP	Heads of EPAs Australia and New Zealand (HEPA), PFAS National Environmental Management Plan – Version 3.0, 2025
NEPC	National Environment Protection Council
NHMRC	National Health and Medical Research Council
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
ORP	Oxidation reduction potential
PCAs	Perfluoro Carboxylic Acids
PFAS	Per and Polyfluoroalkyl Substances
PFHxS	Perfluorohexane sulfonate
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane Sulfonate

Term	Definition
pH	Potential of Hydrogen
PSA	Perfluoroalkyl Sulfonic Acids
QA/QC	Quality Assurance / Quality Control
RAN SSS	Royal Australian Navy Survivability of Ship Safety
RPD	Relative Percent Difference
SAQP	Sampling and Analysis Quality Plan
STP	Sewage Treatment Plant
SWL	Standing Water Level
SWMS	Safe Work Method Statement
µg/L	Micrograms per litre
µS/cm	Micro siemens per centimetre
UST	Underground Storage Tank
WTP	Water Treatment Plant

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by the Department of Defence (Defence) to carry out ongoing monitoring at HMAS Cerberus, Victoria (the base). These works are part of a National Defence Program to understand the nature and extent of per- and polyfluoroalkyl substances (PFAS) contamination resulting from the historical use of Aqueous Film Forming Foam (AFFF) on and adjacent to identified Defence properties across Australia.

Ongoing monitoring, conducted as part of the Ongoing Monitoring Plan (OMP) (Aurecon, 2018a), is an important aspect of managing PFAS, to understand changes in the nature and extent of contamination. The findings are used to inform whether risks to receptors have changed, and whether a change in management approach may be required. The OMP comprises monitoring of surface water and groundwater at the base and its surrounding area, collectively referred to as the Management Area.

For the purposes of this Sampling Event Report (SER):

- The base refers to HMAS Cerberus, Victoria, and includes the channel and intertidal zone within Hanns Inlet, as shown within the orange outline in **Figure 1**; and
- The Management Area consists of Hanns Inlet and the northern portion of the base. This aligns with the Investigation Area (IA) for the intrusive component of the Detailed Site Investigation (DSI) works, shown as the Investigation/Management area within the blue outline in **Figure 1**. The southern portion of the base was excluded from the DSI due to the presence of unexploded ordnance. However, this exclusion did not compromise the completeness of the DSI, as no known or suspected PFAS sources or pathways exist within that section (Aurecon, 2018b).

1.2 Objectives

The objective of the SER is to document the observations, information and data collected during the November 2024 monitoring event in accordance with the OMP and the Sampling and Analysis Quality Plan (SAQP) (JBS&G 2024).

2. Scope of Work

2.1 Sampling, Analysis and Quality Plan

Works completed as part of this SER in accordance with the SAQP (JBS&G, 2024) comprised the following scope:

- Organise fieldworks and obtain permission to access all monitoring locations;
- Gauging of groundwater monitoring locations;
- Collection of groundwater samples and field parameters;
- Collection of surface water samples;
- Analysis of samples;
- Data management of the OMP field and laboratory data in Defence ESdat database; and
- Preparation of this SER.

Any deviations from the proposed scope have been listed in **Section 3**.

2.2 Sampling locations

2.2.1 Surface Water

A total of 32 surface water locations were sampled across the Management Area as part of the OMP. Sampling locations are shown in **Figure 3** and are summarised in **Table 2-1**.

Table 2-1: Summary of Surface Water Monitoring Locations

Area	No. of Monitoring Locations	Monitoring Locations	Rationale
Surface water inflows – drains discharging onto the base	3	SW022, SW023, SW024	To evaluate whether PFAS-impacted stormwater is coming into the Management Area.
Surface water outflows – drains discharging into creeks or Hanns Inlet	16	SW001 to SW007, SW009, SW010, SW014, SW015, SW016, SW018, SW019, SW029, SW030	To evaluate whether the flux of PFAS discharging ultimately into Hanns Inlet is changing during implementation of the OMP.
Bioretention basin (Basin 5) outlet pipe discharging into Hanns Inlet	1	SW090*	
Surface water outflows - Tidal Creek discharging into Hanns Inlet	5	SW017, SW020, SW027, SW028, SW071	To evaluate whether the flux of PFAS discharging via the tidal creeks into Hanns Inlet is changing during implementation of the OMP.
Additional surface water locations indicated for sampling on the figure in the OMP, but not specified in the OMP text to be sampled			
Former sewage treatment plant	1	SW057	To evaluate whether the flux of PFAS discharging from these key potential source areas is changing during implementation of the OMP.
Additional surface water locations filling data gaps or replacing destroyed locations			
Surface water outflows – drains discharging into creeks or Hanns Inlet	6	SW073 to SW078	To evaluate whether the flux of PFAS discharging ultimately into Hanns Inlet is changing during implementation of the OMP.

*New Location (as of May 2024) to be sampled to monitor outflow from bioretention basin 5 as agreed with Defence.

2.2.2 Groundwater

A total of 66 groundwater monitoring wells were assessed across the base and the Management Area as part of the OMP. Sampling locations and respective catchments are listed in the following **Table 2-2** and are shown in **Figure 2**.

Table 2-2: HMAS Cerberus Groundwater Monitoring Network

Item	No. Locations	Source Area Monitored	Monitoring Well/Bore ID
Gauging only	18	N/A	MW001, MW002, MW031, MW040, MW052, MW053, MW056, MW057, MW058, MW060, MW065, MW073, MW119, MW201, MW203, MW205, MW211, MW217S
Sampling	48	Offsite to east	MW207, MW208
		Sports fields	MW041
		Fire station	MW110
		Offsite to north	MW206, MW209
		Offsite to west and northwest	MW204
		Former Fire Training Ground (FTG) (15)	MW017, MW018, MW063, MW074, MW075, MW117, MW121, MW122D, MW122S, MW212, MW213, MW214S, MW215D, MW215S, MW067
		West of Building 192 – Underground Storage Tank (UST) CER2	MW019
		Former washdown area of Water Treatment Plant (WTP) filters at FTG	MW064
		Rifle Range Road landfill	MW028, MW029, MW030
		Former outdoor swimming pool landfill	MW033
		Reclaimed land, former coal/fuel storage	MW034, MW102, MW068
		Former dry cleaning	MW109, MW069, MW070, MW071
		VT0368	MW112
		Corner Cook & Bass Rd - former petrol station USTs	MW043, MW061, MW062
		South of Building 55 - filling station USTs	MW046, MW047
		Building 49 - demonstration building - AST	MW051
		Wardroom Store 102 - AST	MW054
		Upgradient of former Sewage Treatment Plant (STP)	MW003
		Former STP	MW217D, MW218
		Offsite to west	MW210
		Offsite to west & upgradient from onsite sources	MW202

2.3 Data Management

All the data included in the report has been collected, uploaded to the ESdat database and reviewed according to the data management requirements of the Defence Contamination Management Manual (DCMM) Annex L (Defence, 2021). Field and analytical results tables are provided in **Tables**. The data quality assessment is provided in **Appendix A**.

3. Deviations from SAQP/OMP

3.1 Surface Water

The following deviations to surface water monitoring from the SAQP (JBS&G, 2024) were identified and listed in **Table 3-1**.

Table 3-1: Surface Water Deviations

Surface Water ID	Sample/ Gauge	Status	Comments	Impact to OMP
SW075	Sample	Dry	A surface water sample was able to be collected from slightly upstream as the nominated location was dry.	The sample collected was from the same water body (East Creek), slightly upstream of the nominated surface water sample location.
SW021	Sample	Dry	East Creek was not flowing and streambed was dry.	This location is to be sampled to identify PFAS-affected surface water entering the Management Area via East Creek. It was sampled on four occasions between November 2020 and May 2023 but was dry on two occasions (Nov/Dec 2021 and May 2022) (Cardno, 2024). PFAS concentrations fluctuate with a new minimum recorded in November 2022 and a new maximum recorded in May 2023.
SW072	Sample	Dry	Culvert which is downgradient of the FTG was completely dry and could not be sampled.	There are no other monitoring locations identified in the OMP for the former FTG. The location has been previously recorded as dry between November 2020 and May 2022, was sampled in November 2022 and May 2023 (Cardno, 2024) and was dry again in November 2023 (Cardno, 2024). PFAS concentrations decreased in November 2022 and May 2023 relative to the historic range. The FTG was remediated and decommissioned and the surface water concentrations appear to be decreasing.
All locations	Sample	Unreliable field parameters	YSI was calibrated prior to the sampling event however the bump test conducted on 15, 18 and 19 November 2024 demonstrate poor calibration for electrical conductivity (EC).	The field EC values reported in this SER are an unreliable indicator of surface water salinity at the site. This does not affect the criteria applied in the assessment as surface water criteria are not based on EC and multiple rounds of previous monitoring have demonstrated a consistent range.

3.2 Groundwater

The following deviations to groundwater monitoring from the SAQP (JBS&G, 2024) were identified and listed in **Table 3-2**.

Table 3-2: Groundwater Deviations from the SAQP

Groundwater ID	Sample/ Gauge	Status	Comments	Impact of Deviation
MW017	Gauge & Sample	Damaged	The steel monument was missing, and the top section of the standpipe was loose and it was installed with a non-threaded PVC.	Well was able to be sampled.
MW025	Gauge & Sample	Dry	This well is located on the top of the batter associated with a sullage pit which JBS&G is informed was used to dispose of material retrieved from dredging the Hans Inlet. JBS&G was informed that dredging has not been completed for several years. The well and sullage pit were dry at the time of the OMP sampling event in November 2024. The well is located in a 'quicksand' area.	This deviation reduces the available information regarding groundwater level and quality in the vicinity of the sullage pit.
MW028	Gauge & sample	Twine present	Twine noted inside well cap	It is unknown whether the twine deployed by others is certified PFAS-free.
MW031	Gauge	HydraSleeve and twine present	A HydraSleeve and twine was present in the well which was not installed by JBS&G. This was removed prior to sampling.	It is unknown whether the HydraSleeve and/or twine deployed by others is certified PFAS-free. This will not affect gauged groundwater levels.
MW036	Gauge & Sample	Not found	Unable to be located – situated in long grass within reclaimed land, former coal/fuel storage area	This deviation reduces the spatial coverage of the groundwater monitoring well network between the base and Hanns Inlet. Advice received from Defence is that the area was slashed in February 2025 and is now visible. It should be accessible during subsequent monitoring rounds.
MW203	Gauge & Sample	HydraSleeve present	A HydraSleeve was present in the well which was not installed by JBS&G. This was removed prior to sampling.	It is unknown whether the HydraSleeve and/or twine deployed by others is certified PFAS-free.
MW206	Gauge & Sample	Damaged	The well appears to have been struck as there is a bend in the standpipe just below ground level and the steel monument is loose.	Well was able to be sampled however the collar of the HydraSleeve had to be removed due to the kink.
All wells	Sample	Unreliable field parameters	YSI was calibrated prior to the sampling event however the bump test conducted on 15, 18 and 19 November 2024 demonstrate poor calibration for electrical conductivity (EC).	The field EC values reported in this SER are an unreliable indicator of groundwater salinity at the site. Historical monitoring data available for the site indicates a mix of fresh and saline groundwater between (Segment B) (Aurecon, 2018b) and it is unlikely that groundwater salinity has reduced to the extent that that a higher groundwater segment applies.

Groundwater ID	Sample/ Gauge	Status	Comments	Impact of Deviation
MW017, MW018, MW019, MW064, MW069, MW070, MW112, MW122S	Gauge & Sample	Sampled with a bailer	Samples and field parameters were collected from a bailer due to low water columns.	In accordance with EPA Publication 669.1 Appendix B, pH and redox values obtained from bailer grab samples are considered to be of low reliability.

4. Sampling Methodology

4.1 Prior to Sampling

Appropriate health and safety and environmental control documentation was completed prior to the commencement of fieldworks. This documentation included a Health, Safety and Environmental Management Plan (HSEMP) and Safe Work Method Statement (SWMS). These documents were developed to encompass hazard management and risk mitigation.

4.2 Sampling Methodologies

Groundwater and surface water sampling was undertaken in accordance with the methodologies outlined in the SAQP (JBS&G, 2024). Methodologies were based on Department of Defence, Pollution Prevention Guidance – Routine Water Quality Monitoring (Defence, 2019), EPA Victoria publication 699.1 Guidance, Groundwater Sampling Guidelines (EPA, 2022), with amendments made as per the PFAS National Environmental Management Plan – Version 2.0; January 2020 (NEMP 2.0 (HEPA, 2020)) to address PFAS-specific considerations. The PFAS NEMP 3.0 was released between sampling and the preparation of this report. NEMP 3.0 has been referenced for all aspects of the report that occurred post- release of NEMP 3.0.

In addition, sampling was completed in accordance with the JBS&G field sampling guide which was developed specifically for sampling for PFAS. The field sampling guide includes a detailed field checklist to mitigate potential sample contamination during the investigation.

Groundwater HydraSleeve deployment was undertaken on the 11 to the 13 of November 2024, with sampling then undertaken between the 14 and 19 November 2024.

Surface water and groundwater field water quality readings and equipment calibration records are provided in **Tables 1 to 3** (attached) and **Appendix B**, respectively.

4.3 Surface Water and Groundwater Sample Analysis

Surface water and groundwater samples were submitted to the following National Association of Testing Authorities (NATA) accredited laboratories for analysis in accordance with **Table 4-1**:

- Eurofins Melbourne (NATA Accreditation Number 1261).
- Envirolab (NATA Accreditation Number 290).

Table 4-1: Surface Water and Groundwater Analytical Schedule

No. Primary Samples	Parameter	Method	LOR
32 Surface water samples	Extended PFAS Suite	LC/MS-MS	0.01 to 0.05 µg/L
48 Groundwater samples	Extended PFAS Suite	LC/MS-MS	0.01 – 0.05 µg/L

Note: LC/MS-MS: Liquid chromatography–mass spectrometry

5. Assessment Criteria

5.1 Assessment Criteria

The assessment criteria used for groundwater and surface water in this OMP sampling event report are drawn from NEMP 3.0 (HEPA, 2025), the National Health and Medical Research Council (NHMRC) Guidance on PFAS in Recreational Water (2019), the findings of previous site assessments (e.g., prior DSIs) and the SAQP (JBS&G, 2024). The Tier 1 screening criteria adopted for the relevant environmental values is provided in **Table 5-3**.

Table 5-1: Tier 1 Screening Criteria for Water

Exposure Scenario	Adopted Assessment Criteria			
	Sum PFOS & PFHxS	PFOA	Guidance	Original References
	µg/L			
Groundwater				
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	NEMP 3.0	NHMRC (2024)
Ecological	Refer to surface water ecological guidelines			
Surface Water				
Human Health – Water-base Recreation (Primary Contact Recreation), Secondary Contact	2 ²	10	NEMP 3.0	NHMRC (2019)
Human Health - Drinking Water Quality Guideline ¹	0.07 ²	0.56	NEMP 3.0	NHMRC (2024)
Ecological	0.000233 ³	19	NEMP 3.0	ANZG (2018) guidelines for fresh and marine water quality

1. Drinking Water screening guidelines have been adopted for screening purposes for Industrial Water use, Stock Water use and Agriculture/Parks/Gardens Water use.

2. Applies to PFOS, PFHxS and combined PFOS and PFHxS.

3. PFOS only; PFAS NEMP 3.0 (HEPA, 2025) allows for the adoption of the laboratory LOR as a screening level (Section 19.2.1). The adopted LOR for the ecological screening level is 0.01 µg/L.

5.2 Changes to the Assessment Criteria

In the OMP, the adopted recreational use criteria were 0.7 µg/L for PFOS+PFHxS, and 5.6 µg/L for PFOA. These were based on the values in the NEMP 1.0 (2018), which was in effect at the time the OMP was issued. The adopted recreational use criteria were updated in NEMP 2.0 and were carried forward to NEMP 3.0 (2025). As such, the adopted recreational use criteria have been updated to be 2 µg/L for PFOS+PFHxS, and 10 µg/L for PFOA.

In November 2024, the NHRMC released draft health-based drinking water guideline values for public consultation. Defence is considering how the draft guidelines, if adopted, may affect its PFAS Investigation and Management Program, and communities surrounding the Defence Estate. An initial step to this is the adoption of a lower laboratory limit of reporting at select locations to understand any future implications. Until the revised PFAS guideline values are finalised and published, the current guideline values remain in effect. Screening criteria for this assessment are derived from NEMP 3.0 (HEPA, 2025).

6. Data Quality Assessment

A detailed review of the QA/QC measures implemented during the surface water and groundwater sampling event is included in **Appendix A**.

Based on evaluation of the QA/QC data for the sampling event, it is considered that:

- The field and laboratory quality assurance measures implemented provide an acceptable level of confidence that the data collected and reported is appropriately complete, comparable and representative; and
- The field and laboratory quality control measures implemented provide an acceptable level of confidence that the data collected and reported is appropriately accurate and precise.

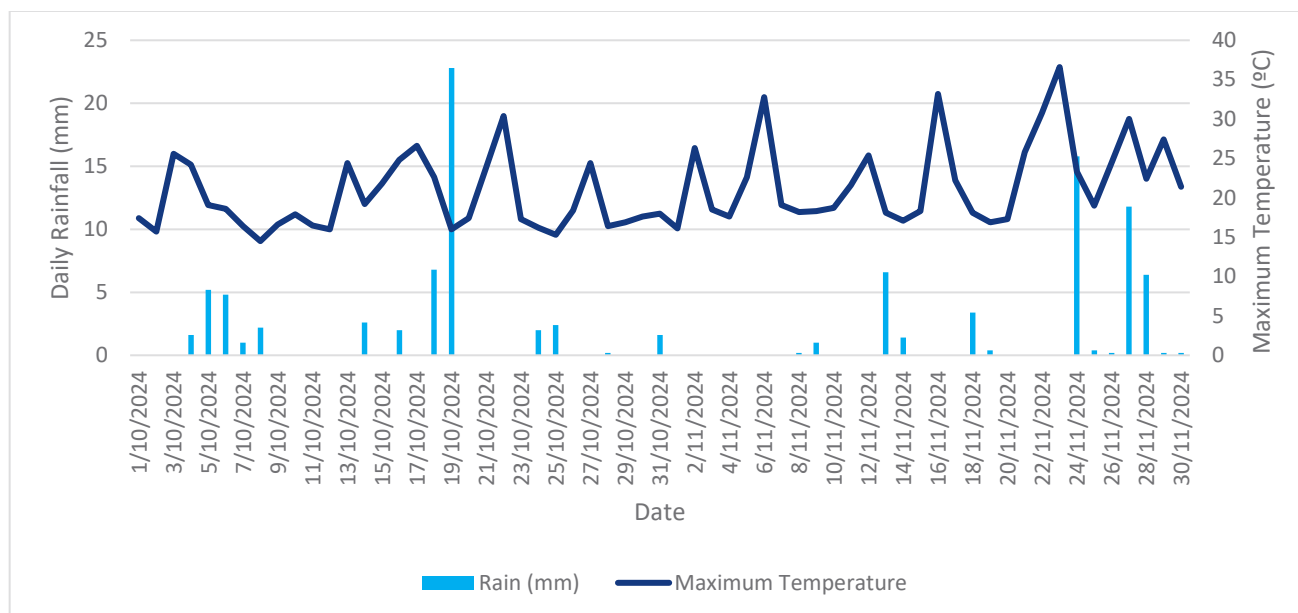
Therefore, the data are considered to be sufficiently reliable and suitable for the purposes of the assessment.

7. Field Parameters and Observations

7.1 Weather Conditions

In the seven days prior to the sampling event, 8 mm of rain was recorded at the nearest weather station (Cerberus - 086361, located onsite). The monthly rainfall for October 2024 (55 mm) was below the historical mean of 68 mm and the monthly rainfall for November 2024 (48 mm) below the historical mean of 56 mm.

Rainfall and temperature for the monitoring period are show in **Graph 1**.



Graph 2: October / November Monitoring Period Weather Conditions

7.2 Tidal Conditions

Due to the influence of tidal conditions on groundwater and surface water flows, the tidal conditions encountered during site works are presented in **Plate 1** and summarised in **Table 7-1**. Tide heights were measured at Stony Point tide station, located north of the mouth of Hanns Inlet.

Surface water sampling, groundwater gauging and groundwater sampling were generally conducted between the daily high and low tides, therefore the results may reflect a range of tidal conditions.

Table 7-1 Times and Heights of High and Low Tides (BOM, 2025)

Date	High Tide	Low Tide	Time of site works
11 November 2024	7:43 am (2.92 m)	1:41 pm (0.94 m)	11:05 am to 2:45 pm (groundwater gauging)
12 November 2024	8:35 am (2.83 m)	2:36 pm (0.84 m)	8:36 am to 3:30 pm (groundwater gauging)
13 November 2024	9:34 am (2.75 m)	3:38 pm (0.7 m)	8:30 am to 2:30 pm (groundwater gauging)
14 November 2024	10:39 am (2.69 m)	4:44 pm (0.54 m)	9:15 am to 2 pm (groundwater gauging and sampling)
15 November 2024	11:46 am (2.67 m)	5:50 pm (0.37 m)	8:20 am to 2:30 pm (groundwater gauging and sampling)
18 November 2024	8:39 am (2.88 m)	2:44 pm (0.78 m)	10:10 am to 3:30 pm (surface water sampling, groundwater gauging and sampling)
19 November 2024	9:30 am (2.94 m)	3:32 pm (0.74 m)	9:30 am to 2:30 pm (groundwater gauging and sampling)

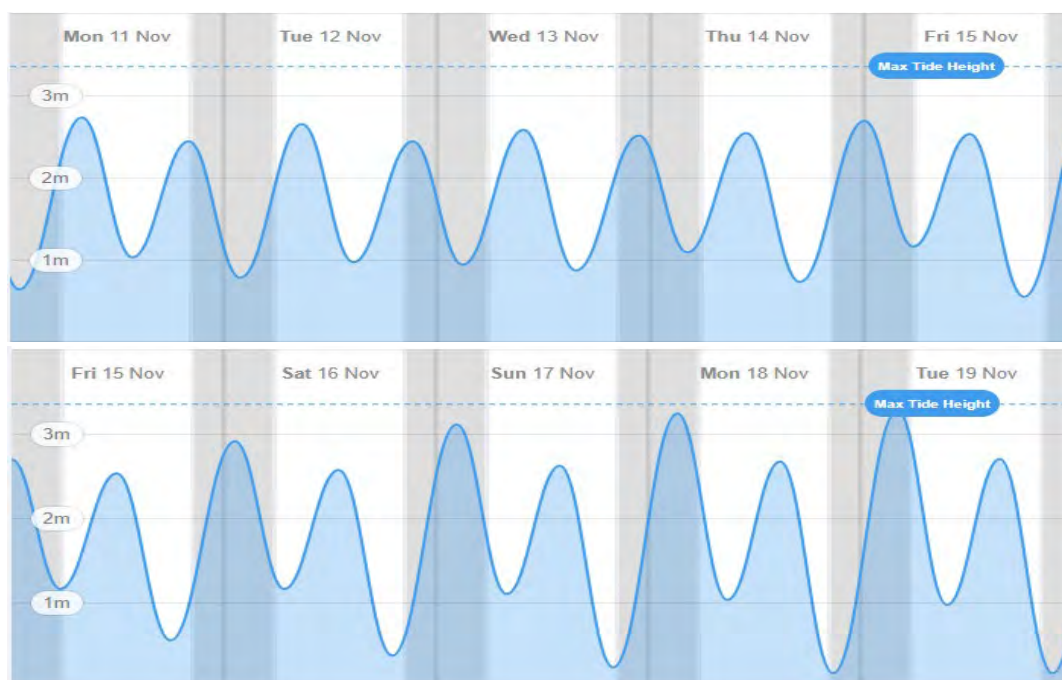


Plate 1: Stony Point Tide Heights – 11 November to 19 November 2024

7.3 Surface Water

7.3.1 Field Observations and Measurements

Surface water field observations and measurements are presented in **Table 7-2**.

Table 7-2: Surface Water Observations

Item	Description
Dates of site works	18 and 19 November 2024
Contamination Observations	The following minor signs of organic contamination were observed: • Minor froth at SW071 • Minor debris in SW077 • Trace algae in SW017 • Leaf litter in SW022 No obvious visible signs of contamination were observed.
Surface Water Flow	During the November 2024 sampling event, the following was observed: • Gentle flow east and southeast out of Hanns inlet (SW003 and SW071) around 10am (low tide). • Gentle flow north (upstream) within East Creek noted at SW020 and as far upstream as SW075. East Creek was dry further upstream at SW073 around 3pm (high tide). • Gentle flow north (upstream) within South Creek noted at SW027 and as far upstream at SW028 around midday (ebb tide).

Surface water field measurements were collected from samples held in unpreserved laboratory-supplied containers. The readings are presented in **Table 1** and are summarised in **Table 7-3**.

Table 7-3 Surface Water Field Measurements

Parameter	Minimum	Maximum	Comment
DO (mg/L)	1.75 (SW074)	9.07 (SW030)	Low to well oxygenated conditions
EC (µs/cm)	10.66 (SW019)	94,278 (SW002)	Fresh to saline conditions. Note that the daily bump tests suggest low reliability of these results as discussed in Section 3 .
pH	6.17 (SW077)	7.84 (SW014)	Generally neutral conditions
Redox (mV)	-40.5 (SW010)	765 (SW006)	Slightly reducing to oxidising conditions.
Temperature (°C)	13.5 (SW022)	21.9 (SW019)	-

7.4 Groundwater

7.4.1 Field Observations and Measurements

Groundwater field observations and measurements are presented in **Table 2** and **Table 3**. The field parameters were recorded ex situ with remaining groundwater from the HydraSleeve™ following sampling. A summary of the field parameters has been presented in **Table 7-4**. Photos of wells in a damaged condition are provided in **Appendix D**.

Table 7-4: Groundwater Observations

Item	Description
Dates of site works	11 - 13 November 2024 – gauging and Hydrasleeve deployment 14, 15 and 19 November – gauging and sampling
Contamination Observations	No visible signs of contamination were observed. Water was observed above the cap at MW201 indicating possible surface water ingress into gatic, however the cap would prevent this from migrating to groundwater. Silt at shallow depth was observed at MW122S.
Depth to groundwater and flow direction	Standing water levels ranged between -0.627 metres Australian Height Datum (mAHD) (MW121) and 8.97mAHD (MW204). Groundwater elevations were generally consistent with the previous events (May 2024). Groundwater contours indicate groundwater flows southeast from the site boundaries towards South Creek and Hanns Inlet. Groundwater elevation contours and flow directions for November 2024 are shown in Figure 2 . Gauging records are presented in Table 2 .

Groundwater geochemical parameters were measured prior to collecting groundwater samples in November 2024. The readings are summarised in **Table 7-5**.

Table 7-5: Groundwater Field Measurements

Parameter*	Minimum	Maximum	Comment
DO (mg/L)	0.89 (MW102)	10.98 (MW030)	Low to well oxygenated conditions
EC ¹ (µs/cm)	2 (MW214S)	92,270 (MW213)	Fresh to highly saline
pH	4.23 (MW215S)	6.83 (MW102)	Acidic to neutral conditions

Parameter*	Minimum	Maximum	Comment
Redox (mV)	-560 (MW068)	2302 (MW109)	Reducing to oxidising conditions
Temperature (°C)	15.3 (MW218)	21.7 (MW213)	-

¹ The field EC values are considered indicative.

*Field parameters collected from a bailer for MW017, MW018, MW019, MW064, MW069, MW070, MW112, MW122S due to low water column.

8. Results

8.1.1 Surface Water Analytical Results

Surface water analytical results are presented in **Table 4** (attached). The surface water analytical results have been compared against the adopted screening criteria and available historical results. In summary:

- Concentrations of PFHxS in 7 out of 32 samples exceeded the drinking water criteria and 2 samples exceeded recreational water criteria;
- Concentrations of PFOS in 21 out of 32 samples exceeded the Freshwater (99% species protection) criterion, 8 samples exceeded the drinking water criteria and 2 samples exceeded the recreational water criteria;
- Concentrations of PFOA in 4 out of 32 samples exceeded drinking water criteria;
- Concentrations of PFOS+PFHxS in 13 out of 32 samples exceeded the drinking water criterion. In five out of 32 samples PFOS+PFHxS concentrations exceeded recreational water criteria;
- Although no screening criteria are available, concentrations of Perfluoroalkyl Sulfonic Acids (PSAs) including PFBS, PFPeS, PFHpS and PFNS and Perfluoro Carboxylic Acids (PCAs) including PFBA, PFPeA, PFHxA, PFHpA and PFNA were detected above LOR in multiple samples; and
- Although no screening criteria are available, concentrations of N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) was detected in one sample and N-Ethyl perfluorooctane sulfonamide (EtFOSA) was detected in two samples.

8.1.2 Surface Water Historical Comparison

Surface water results from the November 2024 monitoring event have been compared with available historical data (presented in **Table 9**) as with reference Section 4.2 of the OMP (2018a).

No first-time detections of PFHxS, PFOS or PFOA were recorded in November 2024. No surface water locations reported first-time criteria exceedances or an increase in concentration of PFHxS, PFOS, PFOA or PFOS+PFHxS above the historical range.

8.1.3 Groundwater Analytical Results

Groundwater analytical results have been presented in **Table 5**. The groundwater analytical results have been compared against the adopted screening criteria and available historical results. In summary:

- Concentrations of PFHxS in 24 out of 48 samples analysed exceeded drinking water criteria and nine samples exceeded recreational criteria;
- Concentrations of PFOS in 29 out of 48 samples analysed exceeded Freshwater (99% species protection) criterion, 15 samples exceeded drinking water criteria and 2 samples exceeded recreational water criteria;
- Concentrations of PFOA in 2 out of 48 samples exceeded drinking water criterion;
- Concentrations of PFOS+PFHxS in 26 out of 48 samples exceeded drinking water criterion. In 10 out of 48 samples PFOS+PFHxS concentrations exceeded recreational water criterion;
- Although no screening criteria are available, concentrations of PSAs including PFBS, PFPeS, PFHpS PFNS and PCAs including PFBA, PFPeA, PFHxA, PFHpA and PFNA were detected above LOR in multiple samples; and
- Although no screening criteria are available, concentrations of 6:2 fluorotelemer sulfonic acid (FTS) was detected above LOR in one sample.

8.1.4 Groundwater Historical Comparison

Groundwater results from the November 2024 monitoring event have been compared with available historical data (presented in **Table 8**) with reference to Section 4.2 of the OMP (2018a).

No first-time detections of PFHxS, PFOS, PFOA or PFOS+PFHxS were recorded in November 2024. Increases in concentrations of PFHxS, PFOS, PFOA and PFOS+PFHxS above the historical range are summarised in **Table 8-1**.

Table 8-1 Summary of Deviation from Historical Groundwater Data and New Exceedances

Sample Location	PFOS+PFHxS		PFHxS		PFOS		PFOA		New Criteria Exceedance	Comment
	Nov 2024 ^{1 2}	Historical Concentration	Nov 2024 ^{1 2}	Historical Concentration	Nov 2024 ^{1 2}	Historical Concentration	Nov 2024 ¹	Historical Concentration		
MW074	4.43 µg/L	3.36 – 4.75 µg/L	4.2 µg/L	3.05 - 3.83 µg/L	0.23 µg/L	0.53 – 0.70 µg/L	0.20 µg/L	0.14 – 0.15 µg/L	No	Sample location is directly downgradient of the FTG. Data at this location from May 2023 to November 2024 indicates an increasing trend for PFHxS and PFOA, however PFOS shows a decreasing trend during the same period. There are no new criteria exceedances. Downgradient well MW214S also exhibited an increase in PFAS concentrations. MW075 is upgradient, to the north of the Fire Ground and exhibited fairly consistent concentrations of PFOS, PFHxS and PFOA between May 2023 and November 2024. The increases observed at MW074 are less than an order of magnitude increase.
MW214S	0.24 µg/L	0.008 – 0.009 µg/L	0.20 µg/L	0.005 - 0.006 µg/L	0.04 µg/L	0.003 µg/L	<LOR	<LOR	Drinking Water for PFHxS and PFOS+PFHxS	Sample location is not within a source area but is hydraulically downgradient of the FTG. This location had not been sampled between April 2018 and November 2024, and PFOS and PFHxS increased during this period. PFHxS and PFOA increased at upgradient location MW074 from May 2023 to November 2024 while PFOS decreased during the same period. PFHxS concentrations at upgradient locations, MW215S and MW067, were the highest observed in the Management Area at 21 µg/L and 50 µg/L respectively. They have fluctuated between April 2018 and May 2024 but decreased slightly in November 2024. PFOS+PFHxS concentrations at downgradient well MW121, located 125 southeast decreased between May and November 2024 from 32.2 µg/L to 3.8 µg/L. The change observed at MW214S is a one-to-two orders of magnitude relative to previous results and appears to be related to the FTG. The FTG was remediated in May 2022 and involved the demolition of the Royal Australian Navy Survivability of Ship Safety (RAN SSS) training facility and

Sample Location	PFOS+PFHxS		PFHxS		PFOS		PFOA		New Criteria Exceedance	Comment
	Nov 2024 ^{1 2}	Historical Concentration	Nov 2024 ^{1 2}	Historical Concentration	Nov 2024 ^{1 2}	Historical Concentration	Nov 2024 ¹	Historical Concentration		
										construction of a containment cell for PFAS contaminated soil at the same location (Golder, 2023).
MW218	0.01 µg/L	0.002 - <0.01 µg/L	No increase		0.01 µg/L	0.001 - <0.01 µg/L	No increase		No	Sample location is directly downgradient of the Former Sewage Treatment Plant. PFAS was detected in March 2018 due to lower LOR. Relatively lower concentrations of PFAS were detected in November 2024, which were higher than historical concentrations. MW001 and MW002 are also downgradient of the surface water basins, which were last monitored in 2018, during which PFAS was not detected.

¹Purple cells indicate new historical maximum.

²Red text indicates order of magnitude increase above historical maximum.

Minor (i.e. not order of magnitude changes) increases in PFAS concentrations have also been identified at groundwater sampling location MW041. These are within historic ranges and were not a first-time criteria exceedance. A full review and discussion of the above identified increases in the context of the overall dataset, and conceptual site model (CSM) will be provided in the Ongoing Monitoring Report (OMR) for the 2024 period.

9. Conclusions and Recommendations

9.1 Conclusions

The November 2024 sampling event was completed in general accordance with the SAQP (JBS&G, 2024) with the exception of minor deviations outlined in **Section 3** which did not affect the overall objectives of the sampling event. The observations, information and data collected as part of the sampling event have been documented in this SER and key findings have been summarised in **Table 9-1**.

A full review and discussion of the results obtained as part of this SER in the context of the overall dataset and CSM will be provided in the OMR for the 2024 period.

Table 9-1: Summary of November 2024 Sampling Event

Aspect	Detail	Recommended Action
General		
SAQP	This OMP round was completed in general accordance with the SAQP (JBS&G 2024) except the deviations discussed in Section 3 including: - One monitoring well could not be sampled or gauged due to coverage with long grass; - One monitoring well was dry and could not be sampled; - Minor variations to the standard sampling technique including sampling eight wells with bailer instead of HydraSleeve. Field parameters were collected from the bailer grab sample; - Two surface water monitoring locations could not be sampled as they were dry; and - One surface water sample was collected from slightly up stream of the nominated location as it was dry.	Complete the next sampling event in general accordance with the prepared SAQP.
Screening criteria	The screening criteria identified in Section 5.2 were adopted in consideration of current guidance.	Continue to monitor for future changes to criteria.
Next scheduled event	The next OMP event is scheduled for May 2025.	Nil
Groundwater		
Groundwater location not found	MW036 could not be found due to long grass. It was subsequently slashed and was reported by Defence as being accessible in February 2025.	Continue to maintain grass areas in the vicinity of monitoring wells.
Groundwater wells damaged	MW017 and MW206 were damaged but could be sampled.	Repair wells by replacing the above ground portion of standpipe and replacement of steel monument before next monitoring event.
Non-PFAS free certified Hydrasleeve and twine in groundwater wells	The affected wells did not exhibit first-time PFAS exceedances of assessment criteria or increases above historical range.	Avoid use of non-PFAS free sampling equipment such as sampling twine and HydraSleeves. Instruct other environmental consultant of the same across other Defence contaminated land investigation/monitoring programs.
Groundwater gauging	The groundwater flow directions inferred from groundwater gauging data were consistent with previous monitoring rounds, with groundwater flowing inwards away from the site boundaries and southeast towards Hanns Inlet.	Groundwater locations will be gauged again during the next scheduled sampling event to continue monitoring of the groundwater flow direction as per OMP.

Aspect	Detail	Recommended Action
Groundwater and surface water field measurements	The groundwater and surface water field EC values appear to be affected by equipment calibration errors.	Daily calibration and bump testing of YSI devices. Ensure calibration fluid is itself within expiry dates.
Groundwater sampling program	A total of 48 primary groundwater samples were collected. Concentrations of PFOS, the PFOS+PFHxS and PFOA were generally consistent with previous monitoring rounds, except MW074, MW214S and MW218 which had results above the historic range. MW214S, located downgradient of the former FTG had first-time exceedances of PFOS for Maintenance of Ecosystems, and PFHxS in Drinking Water.	Groundwater locations will be sampled again during the next scheduled sampling event to continue monitoring of the groundwater PFAS concentrations in accordance with the OMP. Based on the observed concentrations and changes, there is no identified change in risk that would justify immediate triggers for action by Defence. This will be further assessed in the OMR.
First time detection of PFAS above laboratory LOR in groundwater	No first time detections of PFHxS, PFOS, PFOA or PFOS+PFHxS were recorded.	Continue to monitor first-time detections of PFAS in groundwater.
New exceedance of drinking water guideline value in groundwater	One location (MW214S) located downgradient of the former FTG reported a one-to-two order of magnitude increase and new exceedance of PFHxS above drinking water criteria.	Continue to monitor groundwater downgradient of the FTG and assess groundwater trends and risk profile in the OMR.
Surface water		
Surface water sampling program	A total of 32 primary surface water samples were collected. Concentrations of PFOS, the PFOS+PFHxS and PFOA were generally consistent with previous monitoring rounds.	Surface water locations will be sampled again during the next scheduled sampling event to continue monitoring of the surface water PFAS concentrations as per OMP. Based on the observed concentrations and changes, there is no identified change in risk that would justify immediate triggers for action by Defence.
First time detection of PFAS above laboratory LOR in groundwater	No first time detections of PFHxS, PFOS, PFOA or PFOS+PFHxS were recorded.	Continue to monitor first time detections of PFAS in surface water.
New exceedance of recreational water guideline value in surface water	None.	Continue to monitor first time exceedances of PFAS in surface water.

10. References

10.1 Previous Investigation Reports

Aurecon Australasia Pty Ltd (Aurecon 2018a), reference: 256337, HMAS Cerberus PFAS – Ongoing Monitoring Plan, October 2018.

Aurecon Australasia Pty Ltd (Aurecon 2018b), reference: 256337, Detailed Site Investigation - Investigation of per- and poly-fluoroalkyl substances at HMAS Cerberus, September 2018.

Cardno [Stantec] (2024), Ongoing Monitoring Report (November 2020 - May 2023), HMAS Cerberus, March 2024.

Golder (2023), PFAS Impacted Materials Cell - HMAS Cerberus, VIC, Aftercare Management Plan, Rev 1, August 2023.

JBS&G (2024), HMAS Cerberus - PFAS OMP Sampling and Analysis Quality Plan (SAQP), prepared for Department of Defence, November 2024.

10.2 Standards and Guidelines

Australian and New Zealand Guidelines (2018), Australian and New Zealand Guidelines for Fresh and Marine Water Quality.

Australian/New Zealand Standard (1998), AS/NZS 5667.6:1998 Water Quality – Sampling, Part 6: Guidance on sampling rivers and streams.

Department of Defence (2019), Pollution Prevention Management Manual – Annex 1L: Pollution Prevention Guidance - Routine Water Quality Monitoring.

Department of Defence (2021), Contamination Management Manual (DCMM), Annex L: Data Management, June 2021.

Department of Defence (2024), HMAS Cerberus, PFAS Ongoing Monitoring Plan, July 2024.

EPA Victoria (2022), Groundwater Sampling Guidelines, Publication 669.1, February 2022.

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The Heads of EPAs Australia and New Zealand (HEPA) (2018) PFAS National Environmental Management Plan (NEMP), Version 1.0.

The Heads of EPAs Australia and New Zealand (HEPA) (2020) PFAS National Environmental Management Plan (NEMP), Version 2.0.

The Heads of EPAs Australia and New Zealand (HEPA) (2025) PFAS National Environmental Management Plan (NEMP), Version 3.0. CC BY 4.0.

National Health and Medical Research Council (2011 – updated 2024) National Water Quality Management Strategy Australian Drinking Water Guidelines, August 2024.

National Health and Medical Research Council (NHMRC), August 2019, Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water.

Standards Australia/Standards New Zealand (1998) AS5667.1:1998, Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.

10.3 Other

Bureau of Meteorology (2025), Times and Heights of High and Low Waters, Western Port (Sandy Point) – Victoria.

11. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

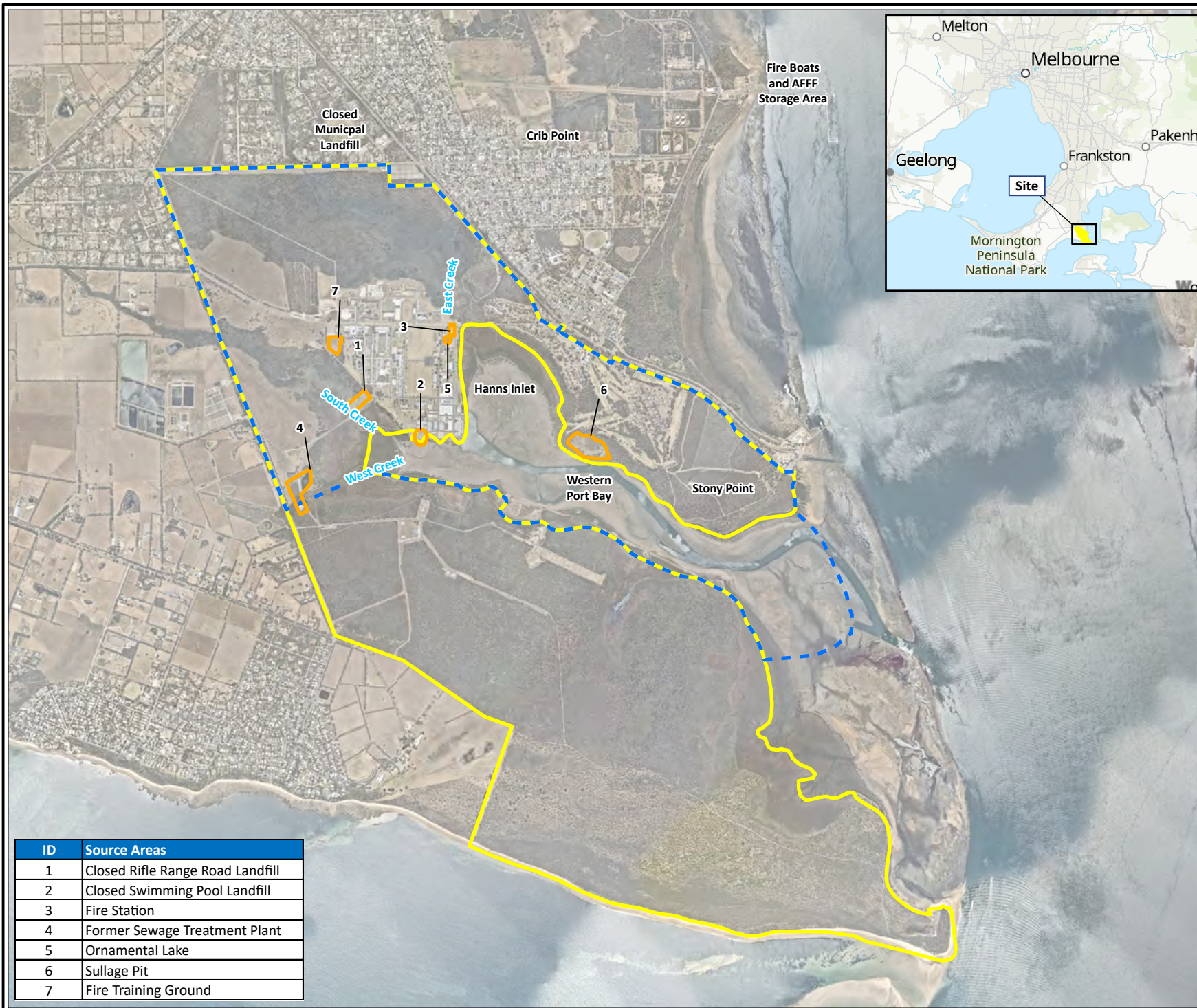
Figures

Figure 1 – Site Location Plan

Figure 2 – Groundwater Flow Direction

Figure 3 – Surface Water Sample Locations and PFAS Concentrations

Figure 4 – Groundwater Sample Locations and PFAS Concentrations



ID	Source Areas
1	Closed Rifle Range Road Landfill
2	Closed Swimming Pool Landfill
3	Fire Station
4	Former Sewage Treatment Plant
5	Ornamental Lake
6	Sullage Pit
7	Fire Training Ground

Legend

- Site Area
- Management Area / Investigation Area
- Source Area
- Watercourse

Job No: 66022

Client: Department of Defence

Version: Rev B	Date: 14-May-2025
Drawn By: [Redacted]	Checked By: [Redacted]

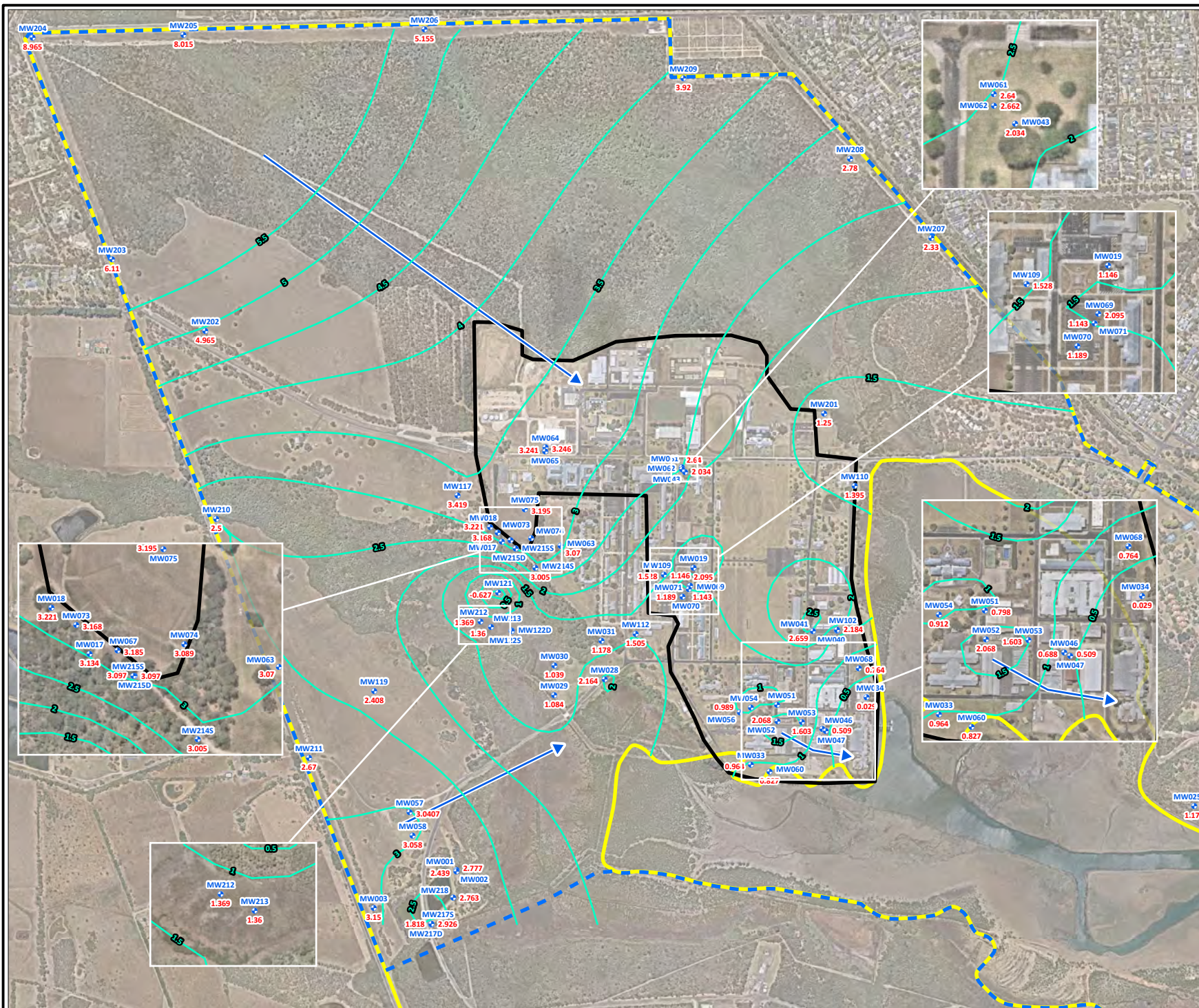
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HMAS Cerberus

SITE LOCALITY PLAN

FIGURE 1



- Legend**
- Site Area
 - Management Area / Investigation Area
 - Operational Area
 - Groundwater Wells
 - ➔ Inferred Flow Direction
 - Inferred Groundwater Contours
 - 2.54 Standing Water Level (mAHd)



Job No: 66022

Client: Department of Defence

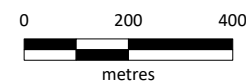
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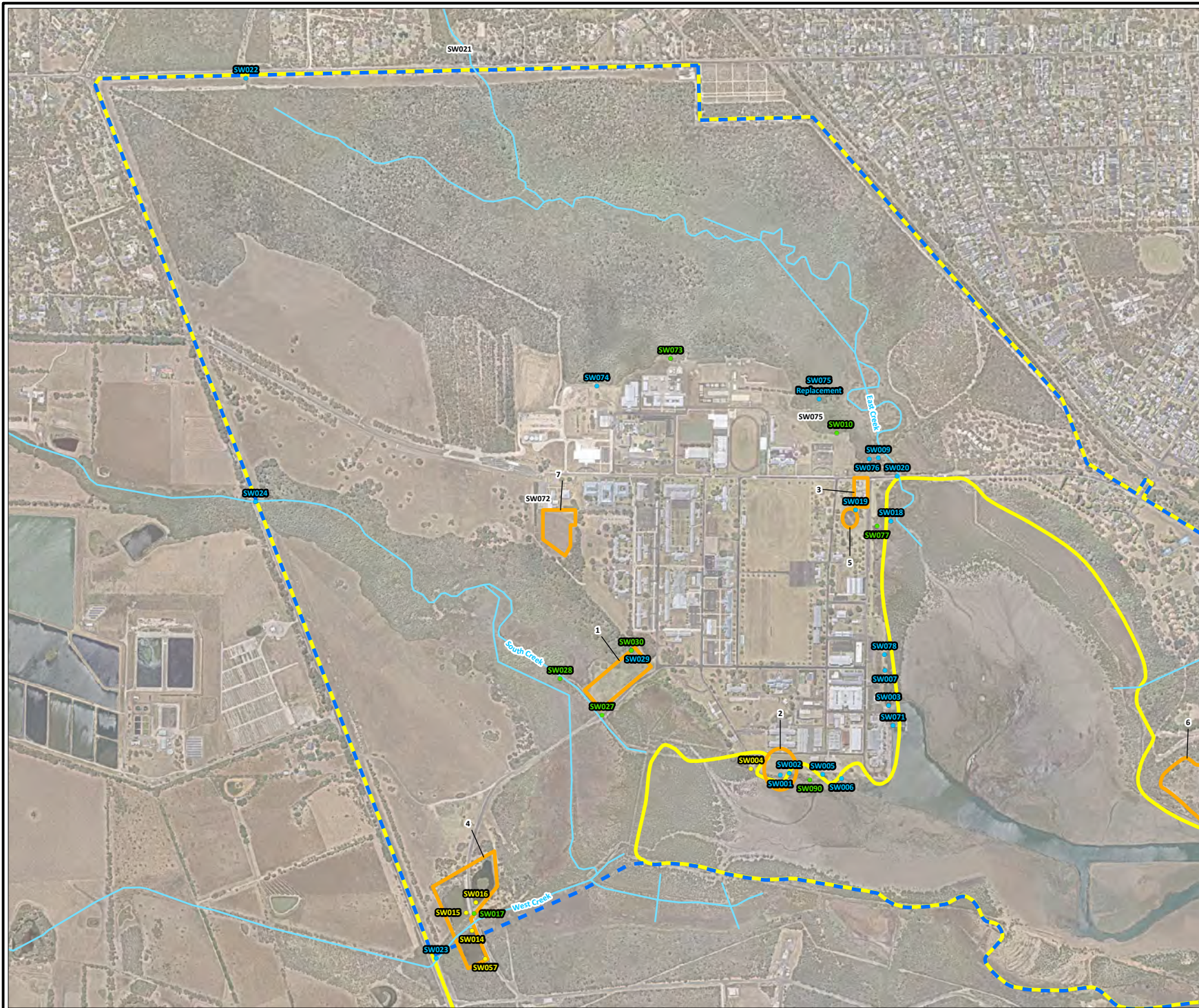


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GROUNDWATER FLOW DIRECTION

FIGURE 2



Legend

- Site Area
 - Management Area / Investigation Area
 - Source Area
 - Watercourse
 - Surface Water Locations – Dry
- Surface Water Locations - Sum of PFOS+PFHxS Concentrations**
- LOR to 0.07µg/L
 - 0.07 to 0.7 µg/L
 - 0.7 to 7 µg/L

Note: SW075 was collected slightly upgradient at location 'SW075 Replacement' due to SAQP location being dry.



Job No: 66022

Client: Department of Defence

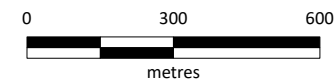
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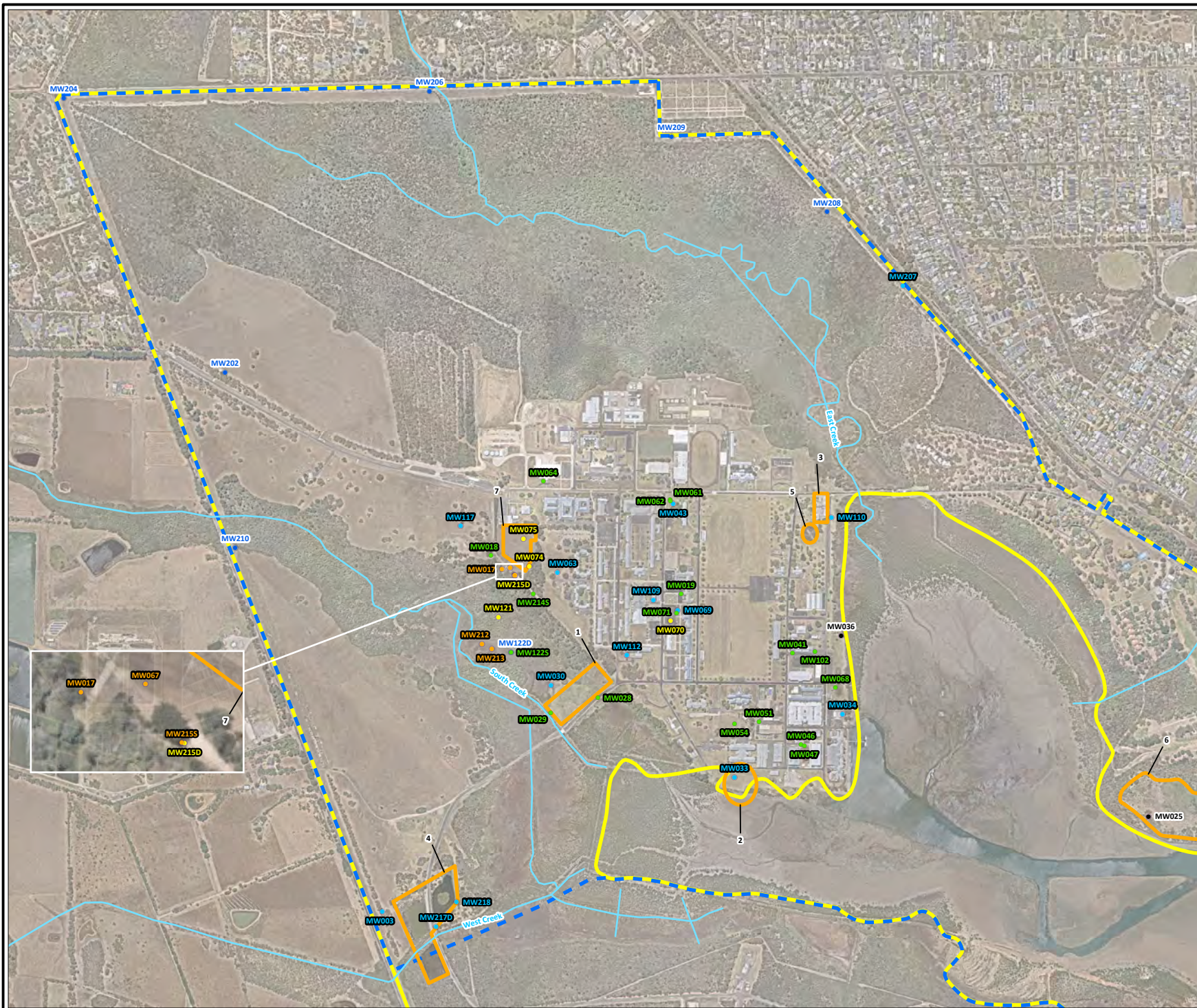


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HMAS Cerberus

SURFACE WATER SAMPLE LOCATIONS AND PFAS CONCENTRATIONS -NOVEMBER 2024

FIGURE 3



Legend

- Site Area
- Management Area / Investigation Area
- Source Area
- Watercourse

PFAS Concentrations: Sum of PFHxS + PFOS

- Below LOR
- LOR to 0.07 µg/L
- 0.07 to 0.7 µg/L
- 0.7 to 7 µg/L
- 7 to 70 µg/L
- Unable to Sample



Job No: 66022

Client: Department of Defence

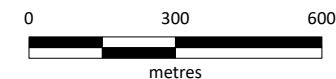
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Coord. Sys. GDA2020 MGA Zone 55

HMAS Cerberus

**GROUNDWATER SAMPLE LOCATIONS
AND PFAS CONCENTRATIONS
-NOVEMBER 2024**

FIGURE 4

Tables

Table 1 – Surface Water Field Parameters

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Table 8 – Historical Groundwater Results

Table 9 – Historical Surface Water Results

Table 1 – Surface Water Field Parameters

Property ID	Location ID	Sample Date	DO	Temp	Redox	EC	pH	TDS (calc as EC x 0.64)
			(mg/L)	(°C)	(mV)	(µS/cm)		(mg/L)
0066	SW001	18 Nov 2024 01:15PM	6.04	18.2	69	45576	7.66	29,169
0066	SW002	18 Nov 2024 01:30PM	4.4	19.4	88.7	94278	7.7	60,338
0066	SW003	18 Nov 2024 10:10AM	3.96	16.8	211	88069	7.75	56,364
0066	SW004	18 Nov 2024 01:00PM	4.4	17.7	41.4	42155	7.13	26,979
0066	SW005	18 Nov 2024 01:45PM	5.31	18.1	74.8	45043	7.61	28,828
0066	SW006	18 Nov 2024 02:00PM	4.28	19	765	91694	7.73	58,684
0066	SW007	18 Nov 2024 02:15PM	4.76	18.7	88.2	79993	7.52	51,196
0066	SW009	18 Nov 2024 03:10PM	5.5	20.5	63.6	49377	7.73	31,601
0066	SW010	18 Nov 2024 03:20PM	5.89	17.6	-40.5	38059	6.71	24,358
0066	SW014	19 Nov 2024 10:20AM	6.94	17	140.6	8539	7.84	5,465
0066	SW015	19 Nov 2024 10:10AM	5.63	16.7	147.5	8479	7.3	5,427
0066	SW016	18 Nov 2024 09:30AM	3.6	17.3	187.4	17.61	6.74	11
0066	SW017	19 Nov 2024 09:50AM	4.99	15.6	200.6	40117	6.67	25,675
0066	SW018	18 Nov 2024 03:00PM	4.87	21	53	48823	7.61	31,247
0066	SW019	18 Nov 2024 11:30AM	5.95	21.9	8.6	10.66	7.8	7
0066	SW020	18 Nov 2024 03:05PM	4.4	19.3	68.9	70078	7.68	44,850
0066	SW022	19 Nov 2024 11:45AM	6.42	13.5	15.9	2300	6.61	1,472
0066	SW023	19 Nov 2024 10:50AM	7.77	15.7	-4.5	3866	7.27	2,474
0066	SW024	19 Nov 2024 11:20AM	5.19	14.5	66.6	1144	6.92	732
0066	SW027	18 Nov 2024 12:00PM	4.98	18	114.3	39135	7.23	25,046
0066	SW028	18 Nov 2024 12:50PM	5.8	18.4	142.7	41327	6.86	26,449
0066	SW029	18 Nov 2024 12:30PM	7.35	16.1	138.1	1020	7.7	653
0066	SW030	18 Nov 2024 12:40PM	9.07	15.6	113.8	182.7	6.63	117
0066	SW057	19 Nov 2024 10:35AM	6.56	17.6	123.8	4500	7.61	2,880
0066	SW071	18 Nov 2024 10:30AM	4.71	17.8	168.3	91302	7.81	58,433
0066	SW073	19 Nov 2024 01:40PM	4.33	16.5	91.1	3713	6.81	2,376
0066	SW074	19 Nov 2024 01:20PM	1.75	17.5	82.6	1094	6.82	700
0066	SW075	18 Nov 2024 03:30PM	8.2	17.6	-33.1	808	7.71	517
0066	SW076	18 Nov 2024 03:15PM	5.18	20.2	66.7	46693	7.55	29,884
0066	SW077	18 Nov 2024 02:45PM	3.36	18.5	6.6	20788	6.17	13,304
0066	SW078	18 Nov 2024 02:30PM	2.6	19.7	42.3	27556	6.82	17,636
0066	SW090	19 Nov 2024 03:30PM	4.56	20.5	68.55	43245	7.15	27,677

Table 2 – Groundwater Gauging Results

Property ID	Well ID	Sample Date	Screen depth (m)	Well Depth (mbTOC)	Depth to Water (mbTOC)	TOC Elevation	Groundwater Elevation (mAHD)	Condition of Well
						(mAHD)		
0066	MW001	12/12/2024		7	0.61	3.387	2.777	Good
0066	MW002	12/12/2024		6.49	0.76	3.199	2.439	Good
0066	MW003	13/12/2024		6.19	1.88	5.03	3.15	Good
0066	MW017	13/12/2024	3 - 9	6.754	5.386	8.52	3.134	Damaged
0066	MW018	13/12/2024	3 - 9	8.7	7.599	10.82	3.221	Good
0066	MW019	11/12/2024	3 - 9	8.988	8.296	9.442	1.146	Good
0066	MW025	13/12/2024	0.5 - 3.5	4.01	4.01	5.182	1.172	Good
0066	MW028	14/12/2024	0.8 - 3.8	4.356	2.176	4.34	2.164	Good
0066	MW029	12/12/2024	0.5 - 3.5	4.459	1.846	2.93	1.084	Good
0066	MW030	12/12/2024	0.4 - 3.3	4.458	1.471	2.51	1.039	Good
0066	MW031	12/12/2024	2 - 7	7.965	4.412	5.59	1.178	Good
0066	MW033	11/12/2024	1.8 - 3.2	3.11	1.985	2.949	0.964	Good
0066	MW034	11/12/2024	3 - 9	8.545	3.07	3.099	0.029	Good
0066	MW040	12/12/2024	3.6 - 9	8.785	2.173	3.385	1.212	Good
0066	MW041	12/12/2024	3 - 6	3.995	0.895	3.554	2.659	Good
0066	MW043	12/12/2024	3 - 9	8.596	4.954	6.988	2.034	Good
0066	MW046	11/12/2024	2 - 6	5.805	2.428	3.116	0.688	Good
0066	MW047	12/12/2024	3 - 6	5.63	2.695	3.204	0.509	Good
0066	MW051	11/12/2024	1 - 5	4.895	2.695	3.493	0.798	Good
0066	MW052	11/12/2024	1 - 4.5	4.24	1.705	3.773	2.068	Good
0066	MW053	11/12/2024		4.985	1.895	3.498	1.603	Good
0066	MW054	11/12/2024	6 - 12	11.965	7.595	8.507	0.912	Good
0066	MW056	11/12/2024		11.945	7.01	7.999	0.989	Good
0066	MW057	12/12/2024	2 - 6	7.035	5.14	8.1807	3.0407	Good
0066	MW058	12/12/2024	2 - 6	7	5.345	8.403	3.058	Good
0066	MW060	11/12/2024		2.933	1.245	2.072	0.827	Good
0066	MW061	12/12/2024		8.933	4.267	6.907	2.64	Good
0066	MW062	12/12/2024		8.845	4.276	6.938	2.662	Good
0066	MW063	13/12/2024		10.606	7.815	10.885	3.07	Good
0066	MW064	12/12/2024		8.072	7.173	10.419	3.246	Good
0066	MW065	12/12/2024		8.841	7.472	10.713	3.241	Good
0066	MW067	12/12/2024	2.5 - 9	9.425	5.869	9.054	3.185	Good

Table 2 – Groundwater Gauging Results

Property ID	Well ID	Sample Date	Screen depth (m)	Well Depth (mbTOC)	Depth to Water (mbTOC)	TOC Elevation	Groundwater Elevation (mAHD)	Condition of Well
						(mAHD)		
0066	MW068	11/12/2024	3 - 7	6.855	2.2	2.964	0.764	Good
0066	MW069	13/12/2024	3 - 9	8.928	7.268	9.363	2.095	Good
0066	MW070	13/12/2024	3 - 9	8.616	8.314	9.503	1.189	Good
0066	MW071	13/12/2024	8 - 11	10.457	8.292	9.435	1.143	Good
0066	MW073	13/12/2024	6 - 9	9.712	6.631	9.799	3.168	Good
0066	MW074	13/12/2024	6 - 9	9.875	8.525	11.614	3.089	Good
0066	MW075	13/12/2024	9 - 12	12.913	9.725	12.92	3.195	Good
0066	MW102	12/12/2024	1.5 - 4.5	4.495	1.21	3.394	2.184	Good
0066	MW109	12/12/2024	7 - 9.9	10.052	8.849	10.377	1.528	Good
0066	MW110	12/12/2024	2.5 - 5.4	10.59	1.495	2.89	1.395	Good
0066	MW112	12/12/2024	7 - 10.9	9.92	9.064	10.569	1.505	Good
0066	MW117	13/12/2024	6.85 - 9.85	10	8.36	11.779	3.419	Good
0066	MW119	12/12/2024	4 - 7	7.035	3.065	5.473	2.408	Good
0066	MW121	13/12/2024	2.1 - 5.1	5.484	3.535	2.908	-0.627	Good
0066	MW122D	13/12/2024	3 - 6	6.865	0.445	2.293	1.848	Good
0066	MW122S	13/12/2024	0.4 - 1.5	0.445	0.315	1.454	1.139	Good
0066	MW201	12/12/2024	6.5 - 9.5	9.788	0.45	1.7	1.25	Good
0066	MW202	13/12/2024	7 - 10	11.12	7.425	12.39	4.965	Good
0066	MW203	13/12/2024	7.5 - 10.5	11.66	10.39	16.5	6.11	Good
0066	MW204	13/12/2024	7 - 10	11.225	4.775	13.74	8.965	Good
0066	MW205	13/12/2024	7.5 - 10.5	10.4	1.065	9.08	8.015	Good
0066	MW206	13/12/2024	7.8 - 10.8	11.91	1.135	6.29	5.155	Damaged
0066	MW207	13/12/2024	8 - 11	11.59	5.87	8.2	2.33	Good
0066	MW208	13/12/2024	7.5 - 10.5	11.62	4.91	7.69	2.78	Good
0066	MW209	13/12/2024	7.5 - 10.5	11.54	9.52	13.44	3.92	Good
0066	MW210	13/12/2024	5 - 8	7.165	0.67	3.17	2.5	Good
0066	MW211	12/12/2024	7.5 - 10.5	11.685	6.35	9.02	2.67	Good
0066	MW212	13/12/2024		3.104	0.856	2.225	1.369	Good
0066	MW213	13/12/2024		3.123	0.911	2.271	1.36	Good
0066	MW214S	13/12/2024	3.5 - 6.5	7.832	5.453	8.458	3.005	Good
0066	MW215D	12/12/2024	10 - 12	12.994	6.151	9.248	3.097	Good
0066	MW215S	12/12/2024	4.5 - 7.5	8.873	6.164	9.261	3.097	Good

Table 2 – Groundwater Gauging Results

Property ID	Well ID	Sample Date	Screen depth (m)	Well Depth (mbTOC)	Depth to Water (mbTOC)	TOC Elevation	Groundwater Elevation (mAHD)	Condition of Well
						(mAHD)		
0066	MW217D	12/12/2024	6 - 8	7.02	1.805	4.731	2.926	Good
0066	MW217S	12/12/2024	1.6 - 3.6	5.005	2.945	4.763	1.818	Good
0066	MW218	12/12/2024	7 - 9	10.495	2.185	4.948	2.763	Good

Table 3 – Groundwater Field Parameters

Property ID	Well ID	Sample Date	AOC	DO (mg/L)	EC (µS/cm)	TDS (mg/l) calc as EC x 0.64	pH	Eh (mV)	Temp (°C)	Turbidity	Water Colour	Odour	Sheen	Screened Aquifer
0066	MW003	15/11/2024		4.1	4,208	2,693	6.1	167.8	15.4	Slight	Clear	No	No	Shallow Brighton
0066	MW017*	19/11/2024	Former Fire Training Ground	8.83	230	147	4.57	196.6	16.9	Moderate	Light brown, some sediment in sample	No	No	Shallow Brighton
0066	MW018*	19/11/2024	Former Fire Training Ground	3.07	1,064	681	5.5	-55.9	15.9	Moderate	Brownish grey	Slight sewage odour	No	Shallow Brighton
0066	MW019*	14/11/2024		6.36	1,013	648	4.94	280.9	18.1	Low	Clear	No	No	Shallow Brighton
0066	MW028	15/11/2024	Closed Rifle Range Road Landfill	1.31	1,390	890	5.19	-114.2	18.7	Slight	Very light brown	No	No	Shallow Brighton
0066	MW029	15/11/2024	Closed Rifle Range Road Landfill	1.5	26,612	17,032	5.38	135.5	16.2	Low	Clear	No	No	Shallow Brighton
0066	MW030	15/11/2024	Closed Rifle Range Road Landfill	10.98	443	284	5.35	-150	16.3	Low	Clear	No	No	Shallow Brighton
0066	MW033	15/11/2024	Closed Rifle Range Road Landfill	3.89	633	405	6.33	-71.8	15.6	High	Brown	No	No	Shallow Brighton
0066	MW034	19/11/2024		1.6	48,155	30,819	6.31	43.4	16.9	Moderate	Light yellowish brown	No	No	Shallow Brighton
0066	MW041	19/11/2024		1.33	259	166	6.22	-40.1	20.2	Slight	Light yellow/brown	No	No	Shallow Brighton
0066	MW043	14/11/2024		1.72	2,784	1,782	5.37	86.1	17	Moderate	Light brown	No	No	Shallow Brighton
0066	MW046	15/11/2024		2.54	503	322	6.4	-2.7	18.8	Slight	Clear	No	No	Shallow Brighton
0066	MW047	15/11/2024		9.85	6	4	5.97	194.3	15.3	Slight	Clear	No	No	Shallow Brighton
0066	MW051	19/11/2024		2.52	307	197	5.57	1884	17.6	Slight	Very light brown	No	No	Shallow Brighton
0066	MW054	15/11/2024		3.61	108	69	4.92	1604	17.4	Slight	Very light brown	No	No	Shallow Brighton
0066	MW061	14/11/2024		6.57	651	417	5.46	245.3	18.4	Low	Clear	Slight hydrocarbon odour	No	Shallow Brighton
0066	MW062	14/11/2024		4.61	25	16	5.17	167.9	19.5	Low	Clear	No	No	Shallow Brighton
0066	MW063	14/11/2024	Former Fire Training Ground	9.33	42	27	6.02	80.4	17.4	Moderate	Light brown	No	No	Shallow Brighton
0066	MW064*	14/11/2024		6.77	2,033	1,301	6.73	46.6	18.8	Moderate	Light brown	No	No	Shallow Brighton

Table 3 – Groundwater Field Parameters

Property ID	Well ID	Sample Date	AOC	DO (mg/L)	EC (µS/cm)	TDS (mg/l) calc as EC x 0.64	pH	Eh (mV)	Temp (°C)	Turbidity	Water Colour	Odour	Sheen	Screened Aquifer
0066	MW067	19/11/2024	Former Fire Training Ground	7.66	1,144	732	5.56	113.7	16.1	Low	Clear	No	No	Shallow Brighton
0066	MW068	19/11/2024		1.38	25,131	16,084	6.74	-560	16	Low - debris	Clear	No	No	Shallow Brighton
0066	MW069*	14/11/2024		8.53	84	54	5.12	178.2	17.4	Moderate	Light brown	No	No	Shallow Brighton
0066	MW070*	14/11/2024		7.99	537	344	5.22	202	18.1	Moderate	Light brown	No	No	Shallow Brighton
0066	MW071	14/11/2024		10.64	573	367	5.52	268.8	17.2	Moderate	Light brown	No	No	Shallow Brighton
0066	MW074	15/11/2024	Former Fire Training Ground	4.6	7,756	4,964	5.14	1964	17.6	Moderate	Light brown	No	No	Shallow Brighton
0066	MW075	15/11/2024	Former Fire Training Ground	2.67	2,730	1,747	6.17	283.9	18.8	Low	Clear	No	No	Shallow Brighton
0066	MW102	19/11/2024		0.89	745	477	6.83	-89.2	18	Slight	Light brown	No	No	Shallow Brighton
0066	MW109	14/11/2024		5.75	2,070	1,325	5.54	2302	17.3	Moderate	Light brown	No	No	Shallow Brighton
0066	MW110	19/11/2024	Fire Station	9.28	74	47	6.29	40.6	17.2	Low	Clear	No	No	Shallow Brighton
0066	MW112	15/11/2024		4.29	1,098	703	6.11	76.1	18.1	Low	Clear	No	No	Shallow Brighton
0066	MW117	19/11/2024		7.91	442	283	5.63	205.7	16.2	Slight	Light brown	No	No	Shallow Brighton
0066	MW121	15/11/2024	Former Fire Training Ground	7.09	3,207	2,052	6.05	63.5	20.3	Moderate	Very light brown	No	No	Shallow Brighton
0066	MW122D	19/11/2024	Former Fire Training Ground	5.79	3,803	2,434	5.84	61	21	Moderate	Light brown	No	No	Shallow Brighton
0066	MW122S*	19/11/2024	Former Fire Training Ground	6.61	38,457	24,612	6.04	192.4	17.5	Moderate	Brownish grey	No	No	Tertiary
0066	MW202	14/11/2024		2.92	2,512	1,608	5.3	66.1	17	Slight	Clear	No	No	Shallow Brighton
0066	MW204	15/11/2024		3.49	2,137	1,368	5.01	82.8	16.2	Slight	Light brown	No	No	Shallow Brighton
0066	MW206	15/11/2024		3.63	84	54	5.18	265.8	16.1	Slight	Clear	No	No	Shallow Brighton
0066	MW207	15/11/2024		2.11	299	192	5.63	82.4	15.7	Slight	Light brown	No	No	Shallow Brighton
0066	MW208	15/11/2024		1.64	821	525	5.45	48.4	16.1	Slight	Light orange	No	No	Shallow Brighton
0066	MW209	15/11/2024		1	1,511	967	5.42	-87.2	15.7	Slight	Clear	No	No	Shallow Brighton
0066	MW210	14/11/2024		5.05	2,728	1,746	5.46	156.3	16.1	Low	Clear	No	No	Shallow Brighton
0066	MW212	15/11/2024	Former Fire Training Ground	6.59	41,553	26,594	6.66	62.5	20.7	Moderate	Brown	No	No	Tertiary
0066	MW213	15/11/2024	Former Fire Training Ground	4.51	92,270	59,053	6.03	35.5	21.7	Moderate	Brown	No	No	Tertiary

Table 3 – Groundwater Field Parameters

Property ID	Well ID	Sample Date	AOC	DO (mg/L)	EC (µS/cm)	TDS (mg/l) calc as EC x 0.64	pH	Eh (mV)	Temp (°C)	Turbidity	Water Colour	Odour	Sheen	Screened Aquifer
0066	MW214S	15/11/2024	Former Fire Training Ground	10.79	2	1	6.04	116.6	17.6	Low	Clear	No	No	Shallow Brighton
0066	MW215D	15/11/2024	Former Fire Training Ground	6.07	1,355	867	4.75	250.2	16.2	Low	Clear	No	No	Deep Brighton
0066	MW215S	15/11/2024		10.22	1,024	655	4.23	176.3	16.2	Slight	Very light brown	No	No	Shallow Brighton
0066	MW217D	15/11/2024	Former Sewage Treatment Plant	4.62	4,688	3,000	6.24	108.3	16.1	Low	Clear	No	No	Deep Brighton
0066	MW218	14/11/2024	Former Sewage Treatment Plant	1.74	3,351	2,145	6.06	142.5	15.3	Low	Clear	No	No	Deep Brighton



	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	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	0.01	0.01	0.01	0.01
PFAS NEMP 3.0 (2025) Drinking Water			0.07		0.07							0.56						
PFAS NEMP 3.0 (2025) Freshwater and Interim Marine 99%					0.00023							19						
PFAS NEMP 3.0 (2025) Recreational Water			2		2							10						

Location Code	Field ID	Date	Lab Report Number																	
SW001	0066_SW001_241118	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW002	0066_SW002_241118	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW003	0066_SW003_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW004	0066_SW004_241118	18 Nov 2024	1162570	0.10	0.16	1.1	0.07	2	<0.01	<0.01	<0.05	0.02	0.15	0.04	0.14	<0.01	<0.01	<0.01	<0.01	<0.01
SW005	0066_SW005_241118	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW006	0066_SW006_241118	18 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW007	0066_SW007_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW009	0066_SW009_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW010	0066_SW010_241118	18 Nov 2024	1162570	<0.01	<0.01	0.03	<0.01	0.07	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW014	0066_SW014_241119	19 Nov 2024	1162570	0.51	0.50	3.0	0.10	3.8	0.03	<0.01	0.27	0.71	4.3	0.68	1.1	0.05	<0.01	<0.01	<0.01	<0.01
SW015	0066_SW015_241119	19 Nov 2024	1162570	0.34	0.31	1.9	0.13	1.4	<0.01	<0.01	0.13	0.34	2.2	0.36	0.82	0.04	<0.01	<0.01	<0.01	<0.01
SW016	0066_SW016_241119	19 Nov 2024	1162570	0.23	0.23	1.5	0.18	2	0.02	<0.01	0.07	0.15	1.1	0.20	0.77	0.06	<0.01	<0.01	<0.01	<0.01
SW017	0066_SW017_241119	19 Nov 2024	1162570	0.02	0.01	0.04	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW018	0066_SW018_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW019	0066_SW019_241118	18 Nov 2024	1162570	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW020	0066_SW020_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW022	0066_SW022_241119	19 Nov 2024	1162570	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW023	0066_SW023_241119	19 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW024	0066_SW024_241119	19 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW027	0066_SW027_241118	18 Nov 2024	1162570	0.02	0.02	0.21	0.01	0.21	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW028	0066_SW028_241118	18 Nov 2024	1162570	0.01	0.02	0.15	<0.01	0.21	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW029	0066_SW029_241118	18 Nov 2024	1162570	<0.01	<0.01	0.01	<0.01	0.04	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW030	0066_SW030_241118	18 Nov 2024	1162570	<0.01	<0.01	0.02	<0.01	0.07	<0.01	<0.01	<0.05	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW057	0066_SW057_241119	19 Nov 2024	1162570	0.57	0.51	3.1	0.11	2.7	0.02	<0.01	0.28	0.73	4.7	0.70	1.1	0.04	<0.01	<0.01	<0.01	<0.01
SW071	0066_SW071_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW073	0066_SW073_241119	19 Nov 2024	1162570	<0.01	<0.01	0.04	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW074	0066_SW074_241119	19 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW075	0066_SW075_241118	18 Nov 2024	1162570	<0.01	<0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW076	0066_SW076_241118	18 Nov 2024	1162570	<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	<0.01	<0.01	<0.01
SW077	0066_SW077_241118	18 Nov 2024	1162570	0.02	0.01	0.06	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW078	0066_SW078_241118	18 Nov 2024	1162570	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW090	0066_SW090_241119	19 Nov 2024	1162570	<0.01	<0.01	0.02	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Environmental Standards
HEPA, January 2025, PFAS NEMP 3.0 Drinking Water
HEPA, January 2025, PFAS NEMP 3.0 Freshwater 99%
HEPA, January 2025, PFAS NEMP 3.0 Recreational Water



	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.01	0.05	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.05	0.1
PFAS NEMP 3.0 (2025) Drinking Water												0.07		
PFAS NEMP 3.0 (2025) Freshwater and Interim Marine 99%														
PFAS NEMP 3.0 (2025) Recreational Water												2		

Location Code	Field ID	Date	Lab Report Number														
SW001	0066_SW001_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW002	0066_SW002_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW003	0066_SW003_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW004	0066_SW004_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.1	3.55	3.8
SW005	0066_SW005_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
SW006	0066_SW006_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	0.03	<0.05	0.12
SW007	0066_SW007_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW009	0066_SW009_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW010	0066_SW010_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.11	0.11
SW014	0066_SW014_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.8	14.37	15.26
SW015	0066_SW015_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.3	7.49	8.1
SW016	0066_SW016_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	3.5	6.02	6.78
SW017	0066_SW017_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.15	0.16
SW018	0066_SW018_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW019	0066_SW019_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
SW020	0066_SW020_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW022	0066_SW022_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	0066_SW023_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW024	0066_SW024_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW027	0066_SW027_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.42	0.46	0.49
SW028	0066_SW028_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.36	0.38	0.4
SW029	0066_SW029_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.1
SW030	0066_SW030_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.14	0.14
SW057	0066_SW057_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5.8	13.88	14.77
SW071	0066_SW071_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW073	0066_SW073_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.14	0.14
SW074	0066_SW074_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW075	0066_SW075_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW076	0066_SW076_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW077	0066_SW077_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	0.08	0.12	0.26
SW078	0066_SW078_241118	18 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.1
SW090	0066_SW090_241119	19 Nov 2024	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.08	<0.1

Environmental Standards
HEPA, January 2025, PFAS NEMP 3.0 Drinking Water
HEPA, January 2025, PFAS NEMP 3.0 Freshwater 99%
HEPA, January 2025, PFAS NEMP 3.0 Recreational Water

Table 5 - November 2024 OMP Sampling Event Groundwater Analytical Results



	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	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	0.01	0.01	0.01	0.01	
PFAS NEMP 3.0 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 3.0 Freshwater and Interim Marine 99%					0.00023							19							
PFAS NEMP 3.0 Recreational Water			2		2							10							

Location Code	Field ID	Date	Lab Report Number																		
MW003	0066_MW003_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW017	0066_MW017_241119	19 Nov 2024	1162531	0.29	0.29	6.2	0.15	1.2	<0.01	<0.01	0.14	0.16	0.45	0.12	0.31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW018	0066_MW018_241119	19 Nov 2024	1162531	0.01	0.02	0.13	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW019	0066_MW019_241114	14 Nov 2024	1161464	0.03	0.02	0.07	<0.01	<0.01	<0.01	<0.01	<0.05	0.02	0.04	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW028	0066_MW028_241115	15 Nov 2024	1161464	0.03	0.05	0.31	0.04	0.32	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW029	0066_MW029_241115	15 Nov 2024	1161464	0.02	0.02	0.09	<0.01	0.03	<0.01	<0.01	<0.05	0.05	0.07	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW030	0066_MW030_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW033	0066_MW033_241115	15 Nov 2024	1161464	<0.01	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW034	0066_MW034_241119	19 Nov 2024	1162531	<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	<0.01	<0.01	<0.01	<0.01
MW041	0066_MW041_241119	19 Nov 2024	1162531	0.01	0.02	0.37	<0.01	0.03	<0.01	<0.01	<0.05	0.04	0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW043	0066_MW043_241114	14 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW046	0066_MW046_241115	15 Nov 2024	1161464	<0.01	<0.01	0.03	<0.01	0.05	<0.01	<0.01	<0.05	0.03	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW047	0066_MW047_241115	15 Nov 2024	1161464	0.02	0.02	0.11	<0.01	0.12	<0.01	<0.01	<0.05	0.02	0.04	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW051	0066_MW051_241119	19 Nov 2024	1162531	0.02	<0.01	0.07	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW054	0066_MW054_241115	15 Nov 2024	1161464	0.02	0.04	0.19	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW061	0066_MW061_241114	14 Nov 2024	1161464	0.02	0.02	0.21	<0.01	0.06	<0.01	<0.01	<0.05	0.02	0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW062	0066_MW062_241114	14 Nov 2024	1161464	0.03	0.03	0.27	<0.01	0.07	<0.01	<0.01	<0.05	0.03	0.08	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW063	0066_MW063_241114	14 Nov 2024	1161464	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW064	0066_MW064_241114	14 Nov 2024	1161464	0.17	0.19	0.25	<0.01	0.15	<0.01	<0.01	<0.05	0.04	0.13	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW067	0066_MW067_241119	19 Nov 2024	1162531	1.8	2.9	50	0.44	1.9	<0.01	<0.01	0.54	1.9	11	0.99	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW068	0066_MW068_241119	19 Nov 2024	1162531	0.02	0.03	0.14	<0.01	0.09	<0.01	<0.01	<0.05	0.03	0.05	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW069	0066_MW069_241114	14 Nov 2024	1161464	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.46	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW070	0066_MW070_241114	14 Nov 2024	1161464	0.05	0.12	3	0.01	<0.01	<0.01	<0.01	<0.05	0.03	0.15	0.09	0.12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW071	0066_MW071_241114	14 Nov 2024	1161464	0.02	0.04	0.3	<0.01	<0.01	<0.01	<0.01	<0.05	0.01	0.06	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW074	0066_MW074_241115	15 Nov 2024	1161464	0.95	0.79	4.2	0.08	0.23	<0.01	<0.01	0.09	0.26	1.3	0.23	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW075	0066_MW075_241115	15 Nov 2024	1161464	6.6	2.7	1.6	0.09	1.3	<0.01	<0.01	1.3	2.1	8	0.21	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW102	0066_MW102_241119	19 Nov 2024	1162531	0.01	<0.01	0.08	<0.01	0.36	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW109	0066_MW109_241114	14 Nov 2024	1161464	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW110	0066_MW110_241119	19 Nov 2024	1162531	<0.01	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW112	0066_MW112_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW117	0066_MW117_241119	19 Nov 2024	1162531	<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	<0.01	<0.01	<0.01	<0.01
MW121	0066_MW121_241115	15 Nov 2024	1161464	0.48	0.42	2.3	0.16	1.5	<0.01	<0.01	0.23	0.31	1.2	0.23	0.26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW122D	0066_MW122D_151115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW122S	0066_MW122S_241119	19 Nov 2024	1162531	0.03	0.03	0.33	0.01	0.32	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW202	0066_MW202_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW204	0066_MW204_241114	14 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW206	0066_MW206_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW207	0066_MW207_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW208	0066_MW208_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW209	0066_MW209_241115	15 Nov 2024	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW210	0066_MW210_241114	14 Nov 2024	1161464	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01											

Table 5 - November 2024 OMP Sampling Event Groundwater Analytical Results



	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.01	0.05	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.05	0.1
PFAS NEMP 3.0 Drinking Water												0.07		
PFAS NEMP 3.0 Freshwater and Interim Marine 99%														
PFAS NEMP 3.0 Recreational Water												2		

Location Code	Field ID	Date	Lab Report Number														
MW003	0066_MW003_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW017	0066_MW017_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.4	8.87	9.47
MW018	0066_MW018_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.16	0.18
MW019	0066_MW019_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.18	0.2
MW028	0066_MW028_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.63	0.73	0.82
MW029	0066_MW029_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.28	0.31
MW030	0066_MW030_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
MW033	0066_MW033_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW034	0066_MW034_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW041	0066_MW041_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.5	0.52
MW043	0066_MW043_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW046	0066_MW046_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.15	0.15
MW047	0066_MW047_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.34	0.36
MW051	0066_MW051_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.17	0.17
MW054	0066_MW054_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	0.25	0.29
MW061	0066_MW061_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.27	0.37	0.39
MW062	0066_MW062_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	0.53	0.57
MW063	0066_MW063_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW064	0066_MW064_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.77	1.03
MW067	0066_MW067_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	51.9	70.13	74.11
MW068	0066_MW068_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.34	0.37
MW069	0066_MW069_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.57	0.6
MW070	0066_MW070_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3	3.44	3.59
MW071	0066_MW071_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	0.43	0.47
MW074	0066_MW074_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	4.43	7.46	8.56
MW075	0066_MW075_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.9	21.2	27.79
MW102	0066_MW102_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.44	0.47	0.47
MW109	0066_MW109_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.08	<0.1
MW110	0066_MW110_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
MW112	0066_MW112_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW117	0066_MW117_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW121	0066_MW121_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.8	6.51	7.31
MW122D	0066_MW122D_151115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW122S	0066_MW122S_241119	19 Nov 2024	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.65	0.7	0.75
MW202	0066_MW202_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW204	0066_MW204_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW206	0066_MW206_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW207	0066_MW207_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	0066_MW208_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW209	0066_MW209_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW210	0066_MW210_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW212	0066_MW212_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	25.6	26.91	27.92
MW213	0066_MW213_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.05	9.84	10.99
MW214S	0066_MW214S_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.3	0.32
MW215D	0066_MW215D_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.46	3.22	3.74
MW215S	0066_MW215S_241115	15 Nov 2024	1161464	<0.01	0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	33	49.17	55.84
MW217D	0066_MW217D_241115	15 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW218	0066_MW218_241114	14 Nov 2024	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1

Environmental Standards
HEPA, January 2025, PFAS NEMP 3.0 Drinking Water
HEPA, January 2025, PFAS NEMP 3.0 Freshwater 99%
HEPA, January 2025, PFAS NEMP 3.0 Recreational Water



Lab Report Number Field ID Date Matrix Type Sample Type			1161464	1161464	RPD	1161464	1161464	RPD
			0066_MW061_241114	0066_QC103_241114		0066_MW062_241114	0066_QC104_241114	
			14 Nov 2024	14 Nov 2024		14 Nov 2024	14 Nov 2024	
			Water	Water		Water	Water	
			Normal	Field_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	0.02	-	-	0.03	-	-
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	0.02	-	-	0.03	-	-
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	0.21	0.06	111	0.27	0.06	127
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	-	-	<0.01	-	-
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	0.06	0.02	100	0.07	0.02	111
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	-	-
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	-	-	<0.01	-	-
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	-	-	<0.05	-	-
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	0.02	-	-	0.03	-	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	0.04	-	-	0.08	-	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	-	-	0.02	-	-
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	0.02	0.02	0	0.03	<0.01	100
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	-	-	<0.01	-	-
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	-	-	<0.01	-	-
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	-	-	<0.01	-	-
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	-	-	<0.01	-	-
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.01	<0.01	-	-	<0.01	-	-
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	-	-	<0.01	-	-
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	-	-	<0.01	-	-
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	-	-	<0.01	-	-
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	-	-	<0.01	-	-
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	-	-	<0.05	-	-
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	-	-	<0.05	-	-
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	-	-	<0.05	-	-
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	-	-	<0.05	-	-
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	-	-	<0.05	-	-
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	-	-	<0.05	-	-
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	-	-	<0.05	-	-
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	0.27	0.08	109	0.34	0.08	124
Sum of PFAS (WA DER List)	µg/L	0.05	0.37	-	-	0.53	-	-
Sum of PFAS	µg/L	0.0002	0.39	-	-	0.57	-	-

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1161464		RPD	1161464		RPD
			0066_MW109_241114	0066_QC101_241114		0066_MW109_241114	0066_QC201_241114	
			14 Nov 2024	14 Nov 2024		14 Nov 2024	14 Nov 2024	
			Water	Water		Water	Water	
			Normal	Field_D		Normal	Interlab_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.01	<0.01	0	<0.01	0.0040	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	<0.01	0	<0.01	0.0017	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	<0.01	<0.01	0	<0.01	0.0097	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	<0.01	0	<0.01	<0.0010	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	0.05	0.05	0	0.05	0.028	56
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	<0.01	0	<0.01	-	-
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.01	0	<0.01	<0.0020	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	<0.05	0	<0.05	0.0086	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	<0.01	0	<0.01	0.0048	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	<0.01	0	<0.01	0.0097	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	0.01	0.01	0	0.01	0.012	18
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	0.02	0.02	0	0.02	0.018	11
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.01	0	<0.01	0.0049	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.01	0	<0.01	0.0028	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.01	0	<0.01	<0.0020	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.01	0	<0.01	<0.0050	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.010	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.050	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.01	0	<0.01	<0.0010	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.05	0	<0.05	0.0029	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.01	0	<0.01	<0.00040	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.01	0	<0.01	<0.0020	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.010	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.050	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.05	0	<0.05	<0.0020	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.050	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.10	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.05	0	<0.05	<0.0020	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.50	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	0.05	0.05	0	0.05	0.038	27
Sum of PFAS (WA DER List)	µg/L	0.05	0.08	0.08	0	0.08	-	-
Sum of PFAS	µg/L	0.0002	<0.1	<0.1	0	<0.1	0.11	10

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1161464	1161464	RPD	1161464	1161464	RPD
			0066_MW204_241114	0066_QC105_241114		0066_MW210_241114	0066_QC102_241114	
			14 Nov 2024	14 Nov 2024		14 Nov 2024	14 Nov 2024	
			Water	Water		Water	Water	
			Normal	Field_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.01	-	-	<0.01	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	-	-	<0.01	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	<0.01	<0.01	0	<0.01	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	-	-	<0.01	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	<0.01	<0.01	0	<0.01	<0.01	0
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	-	-	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	-	-	<0.05	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	-	-	<0.01	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	-	-	<0.01	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	-	-	<0.01	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	<0.01	0	<0.01	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	-	-	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	-	-	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	-	-	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	-	-	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	-	-	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	-	-	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	-	-	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	-	-	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	-	-	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	-	-	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	<0.01	<0.01	0	<0.01	<0.01	0
Sum of PFAS (WA DER List)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
Sum of PFAS	µg/L	0.0002	<0.1	-	-	<0.1	<0.1	0

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1161464	MFK0303	RPD	1161464	1161464	RPD
			0066_MW210_241114	0066_QC202_241114		0066_MW030_241115	0066_QC101_241115	
			14 Nov 2024	14 Nov 2024		15 Nov 2024	15 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	<0.01	<0.00020	0	0.01	0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	<0.01	<0.00020	0	0.01	0.02	67
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	<0.0040	0	<0.05	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	<0.00020	0	<0.01	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	<0.010	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.050	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	0.0013	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.010	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	<0.01	<0.00020	0	0.02	0.03	40
Sum of PFAS (WA DER List)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
Sum of PFAS	µg/L	0.0002	<0.1	0.0013	0	<0.1	<0.1	0

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1161464	MFK0303	RPD	1161464	1161464	RPD
			0066_MW030_241115	0066_QC201_241115		0066_MW217D_241115	0066_QC102_241115	
			15 Nov 2024	15 Nov 2024		15 Nov 2024	15 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.01	0.0040	0	<0.02	0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	0.0026	0	<0.01	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	0.01	0.015	40	0.01	0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	0.01	0.010	0	0.02	0.02	0
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	<0.0040	0	<0.05	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	0.0030	0	<0.01	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	0.0056	0	<0.01	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	0.00096	0	<0.01	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	0.00073	0	<0.01	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.01	<0.01	<0.010	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.050	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	0.00082	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.010	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	0.02	0.025	22	0.03	0.03	0
Sum of PFAS (WA DER List)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
Sum of PFAS	µg/L	0.0002	<0.1	0.043	0	<0.1	<0.1	0

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1161464	MFK0303	RPD	1162570	1162570	RPD
			0066_MW217D_241115	0066_QC202_241115		0066_SW003_241118	0066_QC101_241118	
			15 Nov 2024	15 Nov 2024		18 Nov 2024	18 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.02	0.0018	0	<0.01	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	0.0016	0	<0.01	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	0.01	0.019	62	<0.01	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	0.02	0.0090	76	<0.01	<0.01	0
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	<0.0040	0	<0.05	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	0.0046	0	<0.01	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	0.0091	0	<0.01	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	0.0030	0	<0.01	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	0.0013	0	<0.01	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	<0.010	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.050	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	0.0063	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.010	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	0.03	0.028	7	<0.01	<0.01	0
Sum of PFAS (WA DER List)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
Sum of PFAS	µg/L	0.0002	<0.1	0.056	0	<0.1	<0.1	0

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1162570	MFK0358	RPD	1162570	1162570	RPD
			0066_SW003_241118	0066_QC201_241118		0066_SW071_241118	0066_QC102_241118	
			18 Nov 2024	18 Nov 2024		18 Nov 2024	18 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.01	0.00041	0	<0.01	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	<0.01	0.0013	0	<0.01	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	<0.01	0.0019	0	<0.01	<0.01	0
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	<0.00020	0	<0.01	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.01	<0.01	<0.010	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.050	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.00040	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.010	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	<0.01	0.0032	0	<0.01	<0.01	0
Sum of PFAS (WA DER List)	µg/L	0.05	<0.05	-	-	<0.05	<0.05	0
Sum of PFAS	µg/L	0.0002	<0.1	0.0036	0	<0.1	<0.1	0

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number			1162570	MFK0358	RPD	1162531	1162531	RPD
Field ID			0066_SW071_241118	0066_QC202_241118		0066_MW051_241119	0066_QC104_241119	
Date			18 Nov 2024	18 Nov 2024		19 Nov 2024	19 Nov 2024	
Matrix Type			Water	Water		Water	Water	
Sample Type			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	<0.01	<0.00040	0	0.02	0.02	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	0.01	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	<0.01	0.0017	0	0.07	0.07	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	<0.01	0.0022	0	0.05	0.08	46
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	<0.01	<0.00040	0	0.03	0.02	40
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	<0.00020	0	<0.01	<0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	<0.020	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.10	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.00040	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.010	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	<0.01	0.0039	0	0.12	0.15	22
Sum of PFAS (WA DER List)	µg/L	0.05	<0.05	-	-	0.17	0.19	11
Sum of PFAS	µg/L	0.0002	<0.1	0.0039	0	0.17	0.2	16

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1162531	MFK0357	RPD	1162531	1162531	RPD
			0066_MW051_241119	0066_QC204_241119		0066_MW067_241119	0066_QC102_241119	
			19 Nov 2024	19 Nov 2024		19 Nov 2024	19 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	0.02	0.018	11	1.8	2.3	24
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	<0.01	0.011	10	2.9	3.7	24
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	0.07	0.086	21	50	83	50
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	<0.01	0.0024	0	0.44	0.60	31
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	0.05	0.057	13	1.9	2.5	27
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	<0.01	<0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.05	0.0058	0	0.54	0.69	24
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.01	0.012	18	1.9	1.7	11
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	0.03	0.032	6	11	13	17
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	<0.01	0.0067	0	0.99	1.2	19
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	<0.01	0.0095	0	2.0	2.6	26
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	<0.010	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.050	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.00040	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.00040	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.010	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.0020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	0.12	0.14	15	51.9	85.5	49
Sum of PFAS (WA DER List)	µg/L	0.05	0.17	-	-	70.13	106.99	42
Sum of PFAS	µg/L	0.0002	0.17	0.24	34	74.11	112.12	41

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1162531	MFK0357	RPD	1162570	1162570	RPD
			0066_MW067_241119	0066_QC202_241119		0066_SW016_241119	0066_QC101_241119	
			19 Nov 2024	19 Nov 2024		19 Nov 2024	19 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	1.8	2.6	36	0.23	0.25	8
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	2.9	4.4	41	0.23	0.28	20
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	50	60	18	1.5	2.0	29
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	0.44	0.92	71	0.18	0.18	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	1.9	2.7	35	2.0	2.7	30
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	-	-	0.02	0.03	40
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	0.54	1.1	68	0.07	0.09	25
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	1.9	2.2	15	0.15	0.28	60
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	11	12	9	1.1	1.3	17
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	0.99	1.4	34	0.20	0.28	33
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	2.0	2.3	14	0.77	1.1	35
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.01	<0.010	0	0.06	0.06	0
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.020	0	<0.01	0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.01	<0.01	<0.10	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.50	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.010	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.020	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.10	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.020	0	0.17	0.17	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.020	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	51.9	63	19	3.5	4.7	29
Sum of PFAS (WA DER List)	µg/L	0.05	70.13	-	-	6.02	8	28
Sum of PFAS	µg/L	0.0002	74.11	90	19	6.78	8.83	26

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1162570	MFK0358	RPD	1162570	1162570	RPD
			0066_SW016_241119	0066_QC201_241119		0066_SW057_241119	0066_QC103_241119	
			19 Nov 2024	19 Nov 2024		19 Nov 2024	19 Nov 2024	
			Water	Water		Water	Water	
			Normal	Interlab_D		Normal	Field_D	
	Unit	EQL						
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	0.23	0.32	33	0.57	0.57	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	0.23	0.33	36	0.51	0.55	8
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	1.5	2.1	33	3.1	3.3	6
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	0.18	0.18	0	0.11	0.22	67
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	2.0	3.7	60	2.7	3.0	11
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	0.02	-	-	0.02	0.02	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.002	0.07	0.24	110	0.28	0.32	13
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	0.15	0.28	60	0.73	0.96	27
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	1.1	1.2	9	4.7	4.4	7
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	0.20	0.28	33	0.70	0.77	10
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	0.77	1.1	35	1.1	1.3	17
Perfluorononanoic acid (PFNA)	µg/L	0.001	0.06	0.055	9	0.04	0.05	22
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	0.0074	0	<0.01	<0.01	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.020	0	<0.01	<0.01	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.0050	0	<0.01	<0.01	0
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.01	<0.01	<0.050	0	<0.01	<0.01	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.25	0	<0.01	<0.01	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.0010	0	<0.01	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	0.00075	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	0.00043	0	<0.01	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.0020	0	<0.01	<0.01	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	0.021	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	0.17	0.010	178	<0.05	<0.05	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	0.0055	0	<0.05	<0.05	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0	<0.05	<0.05	0
PFAS								
Sum of PFHxS and PFOS	µg/L	0.0002	3.5	5.8	49	5.8	6.3	8
Sum of PFAS (WA DER List)	µg/L	0.05	6.02	-	-	13.88	14.62	5
Sum of PFAS	µg/L	0.0002	6.78	9.8	36	14.77	15.67	6

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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



Lab Report Number Field ID Date Matrix Type Sample Type			1162570	MFK0358	RPD
			0066_SW057_241119	0066_QC203_241119	
			19 Nov 2024	19 Nov 2024	
			Water	Water	
			Normal	Interlab_D	
	Unit	EQL			
PFAS - Perfluoroalkyl Sulfonic Acids					
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.0004	0.57	0.75	27
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.001	0.51	0.73	35
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.0002	3.1	3.9	23
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.001	0.11	0.20	58
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.0002	2.7	4.2	43
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	0.02	-	-
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.002	<0.01	<0.020	0
PFAS - Perfluoroalkyl Carboxylic Acids					
Perfluorobutanoic acid (PFBA)	µg/L	0.002	0.28	0.76	92
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	0.73	0.97	28
Perfluorohexanoic acid (PFHxA)	µg/L	0.0004	4.7	4.9	4
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0004	0.70	0.86	21
Perfluorooctanoic acid (PFOA)	µg/L	0.0002	1.1	1.4	24
Perfluorononanoic acid (PFNA)	µg/L	0.001	0.04	0.044	10
Perfluorodecanoic acid (PFDA)	µg/L	0.002	<0.01	<0.020	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.002	<0.01	<0.020	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.005	<0.01	<0.050	0
Perfluorotridecanoic acid (PFTTrDA)	µg/L	0.01	<0.01	<0.10	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	<0.50	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids					
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.001	<0.01	<0.010	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.0004	<0.05	<0.010	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.0004	<0.01	<0.020	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.002	<0.01	<0.020	0
PFAS - Perfluoroalkyl Sulfonamides					
Perfluorooctane sulfonamide (FOSA)	µg/L	0.01	<0.05	<0.10	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.050	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.002	<0.05	<0.020	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.050	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.10	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.002	<0.05	<0.020	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.50	0
PFAS					
Sum of PFHxS and PFOS	µg/L	0.0002	5.8	8.1	33
Sum of PFAS (WA DER List)	µg/L	0.05	13.88	-	-
Sum of PFAS	µg/L	0.0002	14.77	19	25

*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: Unlimited (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 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

Table 7 – Rinsate, Field Blank and Trip Blank Results

					PFAS - Perfluoroalkyl Sulfonic Acids		PFAS - Perfluoroalkyl Carboxylic Acids	PFAS - (n:2) Fluorotelomer Sulfonic Acids	PFAS
					Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	Sum of PFHxS and PFOS
					µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.01	0.01	0.01	0.05	0.01

Lab Report Number	Field ID	Date	Matrix Type	Sample Type					
1161464	0066_QC301_241111	11 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC301_241112	12 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC301_241113	14 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC301_241114	14 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC301_241115	15 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC302_241111	11 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC302_241112	12 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC302_241113	14 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC302_241114	14 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC302_241115	15 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC401_241114	14 Nov 2024	Water	Field_B	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC401_241115	15 Nov 2024	Water	Field_B	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC501_241115	15 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC502_241115	15 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC503_241115	15 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01
1161464	0066_QC504_241115	15 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC301_241111	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC301_241112	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC301_241113	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC302_241111	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC302_241112	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC302_241113	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC302_241119	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC402_241119	19 Nov 2024	Water	Field_B	<0.01	<0.01	<0.01	<0.05	<0.01
1162531	0066_QC502_241119	19 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01
1162570	0066_QC301_241118	18 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162570	0066_QC301_241119	19 Nov 2024	Water	Rinsate	<0.01	<0.01	<0.01	<0.05	<0.01
1162570	0066_QC401_241118	18 Nov 2024	Water	Field_B	<0.01	<0.01	<0.01	<0.05	<0.01
1162570	0066_QC401_241119	19 Nov 2024	Water	Field_B	<0.01	<0.01	<0.01	<0.05	<0.01
1162570	0066_QC501_241118	18 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01
1162570	0066_QC501_241119	19 Nov 2024	Water	Trip_B	<0.01	<0.01	<0.01	<0.05	<0.01

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2020 Freshwater 99%					0.00023							19						
PFAS NEMP 2020 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
MW001	29 Mar 2018	MGT	591914	<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	<0.001	<0.001	<0.001	<0.001
MW002	29 Mar 2018	MGT	591914	<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	<0.001	<0.001	<0.001	<0.001
MW003	29 Mar 2018	MGT	591914	<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	<0.001	<0.001	<0.001	<0.001
MW003	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW003	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW010	25 Nov 2020	ALSE-Melbourne	EM2021043	0.76	0.61	3.5	0.02	1.32	-	<0.02	0.1	0.24	1.14	0.13	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW014	31 May 2016	MGT	502716	2.1	-	2.5	-	0.06	-	<0.01	0.2	0.44	1.9	0.14	0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW014	05 Dec 2017	MGT	576131	3.1	1.9	6.9	0.1	0.56	-	0.005	0.34	0.49	2.2	0.17	0.15	<0.001	0.003	<0.001	<0.001	<0.001	<0.001
MW014	04 Apr 2018	MGT	592478	4.1	3	8.3	0.084	0.21	-	<0.01	0.34	0.83	3.4	0.24	0.18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW015	31 May 2016	MGT	502716	2	-	2.6	-	0.05	-	<0.01	0.4	1.1	3.5	0.36	0.32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW015	07 Sep 2017	MGT	562666	3.6	1.5	14	0.31	1.4	-	<0.01	1.2	1.7	3.7	0.41	0.49	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW015	07 Sep 2017	MGT	562666-1	3.6	1.5	14	0.31	1.4	-	<0.01	1.2	1.7	3.7	0.41	0.49	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW015	07 Sep 2017	MGT	562666	3.6	1.5	15	0.26	1.5	-	<0.01	1.2	2	3.8	0.4	0.49	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW015	07 Sep 2017	ALSE-Melbourne	EM1712380	4.5	2.77	18	0.34	1.88	-	<0.02	0.2	2.04	5.03	0.42	0.76	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW015	05 Dec 2017	MGT	576131	3.3	1.9	8.6	0.24	2.1	-	<0.001	1	1.7	3.1	0.3	0.33	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW015	05 Dec 2017	MGT	576131	2.8	2	9.4	0.23	2.2	-	<0.001	1	1.2	3.1	0.3	0.33	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW015	21 Nov 2019	ALSE-Melbourne	EM1919885	4.43	3.64	22.7	0.78	3.66	-	<0.02	1	1.72	6.58	0.59	1.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW015	21 May 2020	ALSE-Melbourne	EM2008583	4.75	5.42	26	0.82	3.88	-	<0.02	0.9	1.59	8.63	0.88	1.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW015	25 Nov 2020	ALSE-Melbourne	EM2021043	4.46	2.53	17.8	0.54	3.56	-	<0.02	0.3	1.52	4.86	0.57	0.82	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW016	31 May 2016	MGT	502716	14	-	34	-	2.7	-	<0.01	1.9	4.7	22	3.5	0.42	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW016	07 Sep 2017	MGT	562666	2.4	2.4	43	9.5	130	-	<0.01	1.5	2.6	8.7	1.6	6.3	0.29	<0.01	<0.01	<0.01	<0.01	<0.01
MW016	07 Sep 2017	MGT	562666	2.6	2.8	46	11	160	-	<0.01	1.6	3.5	9.7	1.8	7.3	0.34	<0.01	<0.01	<0.01	<0.01	<0.01
MW016	07 Sep 2017	MGT	562666-1	2.6	2.8	46	11	160	-	<0.01	1.6	3.5	9.7	1.8	7.3	0.34	<0.01	<0.01	<0.01	<0.01	<0.01
MW016	07 Sep 2017	ALSE-Melbourne	EM1712380	4.08	6.19	56	10.5	382	-	<0.02	0.9	4.14	12.9	2.22	13.8	0.39	<0.02	<0.02	<0.02	<0.02	<0.05
MW016	20 Oct 2017	MGT	568935	2.2	2.4	32	8.3	200	-	<0.2	1.1	2.4	7.5	1	6.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW016	05 Dec 2017	MGT	576131	3.4	4.4	62	11	220	-	<0.01	1.6	3.6	10	1.7	14	0.26	<0.01	<0.01	<0.01	<0.01	<0.01
MW016	05 Dec 2017	MGT	576131	3.5	4.7	70	12	240	-	<0.01	1.7	3.4	11	1.7	14	0.26	<0.01	<0.01	<0.01	<0.01	<0.01
MW016	04 Apr 2018	MGT	592478	13	24	560	18	38	-	<0.2	4.3	8.3	40	7.9	63	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW016	14 Nov 2019	ALSE-Melbourne	EM1919512	3.09	5.2	40	8.09	116	-	<0.02	1.6	3.87	8.96	1.49	4.48	0.20	<0.02	<0.02	<0.02	<0.02	<0.05
MW016	20 Nov 2019	ALSE-Melbourne	EM1919885	3.2	5.96	39.9	8.8	142	-	<0.02	1.7	3.45	10.4	1.07	4.94	0.28	<0.02	<0.02	<0.02	<0.02	<0.05
MW016	21 May 2020	ALSE-Melbourne	EM2008583	5.64	11.9	125	15.1	170	-	<0.05	3	5.19	22.3	3.78	16	0.16	<0.05	<0.05	<0.05	<0.05	<0.12
MW016	25 Nov 2020	ALSE-Melbourne	EM2021043	3.49	4.87	60	12.8	147	-	<0.02	1.1	3.25	11.4	1.83	15.7	0.16	<0.02	<0.02	<0.02	<0.02	<0.05
MW017	31 May 2016	MGT	502716	1.2	-	2.9	-	0.05	-	<0.01	0.14	0.33	1.7	0.24	0.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW017	20 Oct 2017	MGT	568935	2.7	1.6	8.1	<0.2	1.5	-	<0.2	0.83	1.3	2.8	<0.01	0.35	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW017	06 Dec 2017	MGT	577093	1.9																	

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW017	06 Dec 2023	ALSE-Melbourne	EM2321752	0.44	0.73	11.3	0.36	1.89	-	<0.02	0.1	0.22	0.62	0.14	0.44	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW017	08 May 2024	ALSE-Melbourne	EM2407537	0.25	0.28	6.04	0.17	2.2	-	<0.02	<0.1	0.15	0.44	0.08	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW017	19 Nov 2024	Eurofins Environment ANZ	1162531	0.29	0.29	6.2	0.15	1.2	<0.01	<0.01	0.14	0.16	0.45	0.12	0.31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW018	31 May 2016	MGT	502716	<0.01	-	0.01	-	0.04	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW018	31 May 2016	MGT	502716	<0.01	-	0.02	-	<0.01	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW018	06 Dec 2017	MGT	577093	0.008	0.006	0.03	<0.001	0.003	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW018	06 Dec 2017	MGT	577093	0.008	0.006	0.032	<0.001	0.006	-	<0.001	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW018	04 Apr 2018	MGT	592478	0.009	0.006	0.027	<0.001	0.002	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW018	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.07	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.04	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	30 Jun 2021	ALSE-Melbourne	EM2112638	0.02	<0.02	0.07	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.06	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.11	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.08	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.08	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.08	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW018	19 Nov 2024	Eurofins Environment ANZ	1162531	0.01	0.02	0.13	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW019	06 Dec 2017	MGT	577093	0.042	0.052	0.14	0.003	0.004	-	<0.001	0.017	0.02	0.077	0.028	0.041	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW019	21 Nov 2019	MGT	689708	0.04	0.05	0.21	<0.01	<0.01	<0.01	<0.01	<0.05	0.02	0.08	0.05	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW019	21 Nov 2019	ALSE-Melbourne	EM1919885	0.04	0.04	0.23	<0.02	<0.01	-	<0.02	<0.1	0.02	0.08	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	21 Nov 2019	ALSE-Melbourne	EM1919885	0.04	0.04	0.23	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.08	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	21 May 2020	ALSE-Melbourne	EM2008583	0.03	0.02	0.45	<0.02	0.01	-	<0.02	<0.1	0.03	0.06	0.05	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	26 Nov 2020	ALSE-Melbourne	EM2021043	0.08	<0.02	0.16	<0.02	0.03	-	<0.02	<0.1	0.05	0.08	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	30 Jun 2021	ALSE-Melbourne	EM2112638	0.03	0.02	0.17	<0.02	0.01	-	<0.02	<0.1	0.05	0.07	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	0.03	0.11	<0.02	0.07	-	<0.02	<0.1	0.02	0.08	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	05 May 2022	ALSE-Melbourne	EM2208151	0.02	0.03	0.12	<0.02	0.01	-	<0.02	<0.1	0.04	0.06	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	26 May 2023	ALSE-Melbourne	EM2309599	0.02	0.02	0.12	<0.02	0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW019	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.08	<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	<0.05
MW019	14 Nov 2024	Eurofins Environment ANZ	1161464	0.03	0.02	0.07	<0.01	<0.01	<0.01	<0.01	<0.05	0.02	0.04	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW020	07 Dec 2017	MGT	577093	0.027	0.025	0.16	0.001	0.005	-	<0.001	0.01	0.012	0.047	0.018	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW021	30 May 2016	MGT	502716	0.04	-	0.14	-	0.02	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW021	05 Sep 2017	MGT	562666	0.07	0.04	0.31	<0.01	0.02	-	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW021	05 Sep 2017	MGT	562666-1	0.07	0.04	0.31	<0.01	0.02	-	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW021	05 Sep 2017	MGT	562666	0.07	0.05	0.37	<0.01	0.03	-	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW021	05 Sep 2017	ALSE-Melbourne	EM1712380	0.04	0.07	0.54	<0.02	0.03	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW021	01 Dec 2017	MGT	575567	0.055	0.052	0.39	0.008	0.055	-	<0.001	<0.005	0.005	0.021	0.003	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW022	01 Dec 2017	MGT	575567	0.006	0.003	0.006	<0.001	0.011	-	<0.001	<0.005	0.001	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW023	01 Dec 2017	MGT	575567	<0.001	<0.001	<0.001	<0.001	0.002	-	<0.001	<0.005	<0.001	<0.001	<0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001
MW025	30 May 2018	MGT	601156	0.03	0.056	0.84	0.12	3.3	-	<0.001	0.016	0.032	0.14	0.02	0.065	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
MW025	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	0.78	<0.05	0.76	-	<0.05	<0.2	<0.05	0.14	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.12
MW025	20 May																				

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW028	29 Jun 2021	ALSE-Melbourne	EM2112638	0.07	0.07	1.03	0.04	0.38	-	<0.02	<0.1	0.04	0.08	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	30 Nov 2021	ALSE-Melbourne	EM2124215	0.15	0.15	1.3	0.05	0.34	-	<0.02	<0.1	0.15	0.25	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	04 May 2022	ALSE-Melbourne	EM2208151	0.11	0.15	1.58	0.06	0.38	-	<0.02	<0.1	0.08	0.16	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	15 Nov 2022	ALSE-Melbourne	EM2223006	0.15	0.15	1.4	0.04	0.32	-	<0.02	<0.1	0.15	0.24	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	25 May 2023	Eurofins Environment ANZ	993983	0.06	0.1	1.1	0.05	0.65	<0.01	<0.01	<0.05	0.03	0.08	0.02	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW028	26 May 2023	ALSE-Melbourne	EM2309599	0.04	0.06	0.85	0.04	0.4	-	<0.02	<0.1	<0.02	0.05	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	26 May 2023	ALSE-Melbourne	EM2309599	0.05	0.07	0.93	0.04	0.45	-	<0.02	<0.1	0.02	0.06	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	04 Dec 2023	Eurofins Environment ANZ	1051767	0.07	0.14	1.1	0.07	0.64	<0.01	<0.01	<0.05	0.04	0.08	0.02	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW028	04 Dec 2023	ALSE-Melbourne	EM2321752	0.06	0.1	1.16	0.06	0.49	-	<0.02	<0.1	0.04	0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	04 Dec 2023	ALSE-Melbourne	EM2321752	0.07	0.11	1.34	0.07	0.66	-	<0.02	<0.1	0.04	0.08	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.36	0.03	0.51	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW028	15 Nov 2024	Eurofins Environment ANZ	1161464	0.03	0.05	0.31	0.04	0.32	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW029	30 May 2016	MGT	502716	<0.01	-	0.02	-	<0.01	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW029	06 Dec 2017	MGT	577093	0.011	0.02	0.18	0.005	0.062	-	<0.001	0.007	0.004	0.014	0.004	0.022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW029	16 Feb 2018	MGT	585592	0.006	0.009	0.099	0.002	0.036	-	<0.001	<0.005	0.001	0.006	0.002	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW029	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	0.26	<0.05	0.07	-	<0.05	<0.2	0.06	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.12
MW029	19 May 2020	ALSE-Melbourne	EM2008583	0.03	0.03	0.17	<0.02	0.05	-	<0.02	<0.1	0.05	0.11	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.1	<0.02	0.03	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	30 Nov 2021	ALSE-Melbourne	EM2124215	0.03	<0.02	0.12	<0.02	0.03	-	<0.02	<0.1	0.08	0.1	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.06	<0.02	0.01	-	<0.02	<0.1	0.03	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.09	<0.02	0.04	-	<0.02	<0.1	0.04	0.06	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	15 Nov 2022	Eurofins Environment ANZ	943130	0.01	<0.01	0.09	<0.01	0.04	<0.01	<0.01	<0.05	0.05	0.06	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW029	16 Nov 2022	ALSE-Melbourne	EM2223006	0.02	<0.02	0.08	<0.02	0.03	-	<0.02	<0.1	0.04	0.05	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	29 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.04	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.04	<0.02	<0.01	-	<0.02	<0.1	0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW029	15 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.02	0.09	<0.01	0.03	<0.01	<0.01	<0.05	0.05	0.07	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW030	30 May 2016	MGT	502716	<0.01	-	0.02	-	0.01	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW030	06 Dec 2017	MGT	577093	0.006	0.01	0.092	0.003	0.11	-	<0.001	0.01	0.003	0.009	0.003	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW030	16 Feb 2018	MGT	585592	0.002	0.003	0.035	0.002	0.076	-	<0.001	<0.005	0.001	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW030	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.05	<0.02	0.07	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.05	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.04	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	29 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.02	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW030	15 Nov 2024	Eurofins Environment ANZ																			

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)		
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW033	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW033	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW033	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW034	04 Dec 2017	MGT	576131	0.003	0.002	0.024	<0.001	0.0016	-	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW034	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.12
MW034	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.04	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW034	19 Nov 2024	Eurofins Environment ANZ	1162531	<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	<0.01	<0.01	<0.01	<0.01
MW035	04 Dec 2017	MGT	576131	0.01	0.011	0.038	<0.001	0.0011	-	<0.001	0.006	0.007	0.029	0.005	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW035	28 Mar 2018	MGT	591827	0.012	0.013	0.015	<0.001	0.002	-	<0.001	<0.005	0.009	0.029	0.004	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW036	04 Dec 2017	MGT	576131	0.014	0.016	0.071	<0.001	0.0043	-	<0.001	<0.005	0.002	0.01	0.002	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW036	28 Mar 2018	MGT	591827	0.014	0.015	0.039	<0.001	0.005	-	<0.001	<0.005	0.003	0.01	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW036	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
MW036	19 May 2020	ALSE-Melbourne	EM2008583	0.02	0.04	0.08	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.07	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.06	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.07	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.06	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.06	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW036	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW038	30 May 2016	MGT	502716	0.05	-	0.67	-	<0.01	-	<0.01	<0.05	0.03	0.15	0.06	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW038	07 Dec 2017	MGT	577093	0.03	0.12	3.7	0.15	0.019	-	<0.001	0.01	0.018	0.079	0.058	0.23	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
MW038	28 Mar 2018	MGT	591827	0.032	0.11	3.5	0.14	0.067	-	<0.001	0.014	0.021	0.089	0.058	0.24	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
MW039	30 May 2016	MGT	502716	0.03	-	0.01	-	<0.01	-	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW039	06 Dec 2017	MGT	577093	0.064	0.051	0.021	<0.001	0.005	-	<0.001	0.016	0.019	0.067	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW040	31 May 2016	MGT	502716	0.02	-	0.22	-	0.04	-	<0.01	<0.05	<0.01	0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW040	04 Dec 2017	MGT	576131	0.016	0.024	0.52	0.034	0.54	-	<0.001	0.011	0.007	0.04	0.008	0.028	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW040	28 Mar 2018	MGT	591827	0.018	0.028	0.39	0.028	0.7	-	<0.001	0.012	0.008	0.037	0.007	0.029	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW041	04 Dec 2017	MGT	576131	0.019	0.043	0.4	0.005	0.022	-	<0.001	0.018	0.018	0.046	0.009	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW041	28 Mar 2018	MGT	591827	0.021	0.034	0.26	<0.001	0.025	-	<0.001	0.016	0.015	0.041	0.008	0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW041	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	0.03	0.31	<0.02	0.03	-	<0.02	<0.1	0.02	0.05	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW041	19 May 2020	ALSE-Melbourne	EM200858																		

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW043	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW043	14 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW044	30 May 2016	MGT	502716	0.02	-	0.13	-	<0.01	-	<0.01	<0.05	<0.01	0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW044	01 Dec 2017	MGT	575567	0.013	0.017	0.23	0.004	0.051	-	<0.001	0.015	0.014	0.034	0.009	0.032	0.003	0.002	0.003	<0.001	<0.001	<0.001
MW045	30 May 2016	MGT	502716	0.03	-	0.17	-	<0.01	-	<0.01	<0.05	0.05	0.1	0.03	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW045	01 Dec 2017	MGT	575567	0.021	0.03	0.35	0.003	0.062	-	<0.001	0.018	0.044	0.089	0.023	0.082	0.004	0.002	0.003	<0.001	<0.001	<0.001
MW045	14 Nov 2019	ALSE-Melbourne	EM1919512	0.03	0.03	0.38	<0.02	0.06	-	<0.02	<0.1	0.04	0.11	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	30 May 2016	MGT	502716	<0.01	-	<0.01	-	<0.01	-	<0.01	<0.05	0.03	0.03	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW046	04 Dec 2017	MGT	576131	0.006	0.007	0.046	0.002	0.033	-	<0.001	0.011	0.024	0.028	0.012	0.011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW046	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	0.03	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.04	<0.02	0.05	-	<0.02	<0.1	0.03	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	20 May 2020	MGT	721332	<0.01	<0.01	0.04	<0.01	0.03	<0.01	<0.01	<0.05	0.02	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW046	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.05	<0.02	0.05	-	<0.02	<0.1	0.04	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	30 Jun 2021	ALSE-Melbourne	EM2113696	<0.02	<0.02	0.03	<0.02	0.02	-	<0.02	<0.1	0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	01 Dec 2021	MGT	849156	<0.01	<0.01	0.03	<0.01	0.04	<0.01	<0.01	<0.05	0.03	0.03	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW046	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.01	0.03	<0.01	0.06	<0.01	<0.01	<0.05	0.03	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW046	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.03	<0.02	0.06	-	<0.02	<0.1	<0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.03	<0.02	0.06	-	<0.02	<0.1	<0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.03	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	0.03	<0.01	0.05	<0.01	<0.01	<0.05	0.03	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW047	04 Dec 2017	MGT	576131	0.036	0.036	0.34	0.008	0.12	-	<0.001	0.013	0.017	0.046	0.01	0.023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW047	28 Mar 2018	MGT	591827	0.03	0.028	0.16	0.005	0.12	-	<0.001	0.012	0.014	0.038	0.009	0.024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW047	14 Nov 2019	ALSE-Melbourne	EM1919512	0.04	0.02	0.17	<0.02	0.09	-	<0.02	<0.1	<0.02	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW047	20 May 2020	ALSE-Melbourne	EM2008583	0.04	0.02	0.17	<0.02	0.13	-	<0.02	<0.1	<0.02	0.05	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW047	25 Nov 2020	ALSE-Melbourne	EM2021043	0.03	<0.02	0.13	<0.02	0.1	-	<0.02	<0.1	<0.02	0.03	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW047	30 Jun 2021	ALSE-Melbourne	EM2113696	0.04	<0.02	0.11	<0.02	0.06	-	<0.02	<0.1	0.02	0.03	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW047	01 Dec 2021	ALSE-Melbourne	EM2124215	0.03	<0.02	0.12	<0.02	0.09	-	<0.02	<0.1	<0.02	0.03	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW047	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	0.02	0.15	<0.02	0.14	-	<0.02	<0.1	0.02	0.05	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW051	03 May 2022	MGT	886234	0.02	0.02	0.17	<0.01	0.24	<0.01	<0.01	<0.05	0.02	0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW051	03 May 2022	ALSE-Melbourne	EM2208151	0.02	0.03	0.18	<0.02	0.16	-	<0.02	<0.1	<0.02	0.05	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW051	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	0.08	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW051	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.05	<0.02	0.06	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW051	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW051	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.05	<0.02	0.05	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW051	19 Nov 2024	Eurofins Environment ANZ	1162531	0.02	<0.01	0.07	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW051	19 Nov 2024	Eurofins Environment ANZ	1162531	0.02	0.01	0.07	<0.01	0.08	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW051	19 Nov 2024	ENVIROLAB	MFK0357	0.018	0.011	0.086	0.0024	0.057	-	<0.0020	0.0058	0.012	0.032	0.0067	0.0095	<0.0010	<0.0020	<0.0020	<0.0050	<0.010	<0.050
MW052	04 Dec 2017	MGT	576131	0.003	0.003	0.03	<0.001	0.0026	-	<0.001	0.01	0.003	0.007	0.003	0.024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW053	30 May 2016	MGT	502716	<0.01	-	<0.01	-	<0.01	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW053	04 Dec 2017	MGT	576131	0.005	0.005	0.054	0.002	0.041	-	<0.001	<0.005	0.002	0.005	0.002	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW053	28 Mar 2018	MGT	591827	0.005	0.005	0.043	0.002	0.064	-	<0.001	<0.005	0.002	0.006	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW053	21 Nov 2019	ALSE-Melbourne	EM1919885	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	05 Dec 2017	MGT	576131	<0.001	<0.001	0.002	<0.001	<0.0001	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW054	28 Mar 2018	MGT	591827	<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	<0.001	<0.001	<0.001	<0.001
MW054	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW054	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	25 May 2023	ALSE-Melbourne	EM2309599	0.02	0.02	0.24	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	0.02	0.25	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	0.03	0.29	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW054	15 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.04	0.19	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW056	05 Dec 2017	MGT	576131	<0.001	<0.001	0.004	<0.001	0.0029	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW057	30 May 2018	MGT	601156	0.052	0.03	0.086	<0.001	0.002	-	<0.001	<0.005	0.002	0.013	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW058	07 Dec 2017	MGT	577093	0.08	0.074	0.1	<0.001	0.002	-	<0.001	<0.005	0.001	0.007	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW059	30 May 2016	MGT	502716	0.03	-	0.03	-	0.03	-	<0.01	<0.05	0.01	0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW059	30 May 2016	MGT	502716	0.04	-	0.03	-	<0.01	-	<0.01	<0.05	0.01	0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW060	03 May 2022	ALSE-Melbourne	EM2208151	0.23	0.29	4.16	0.19	3.03	-	<0.02	<0.1	0.07	0.38	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW061	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.33	<0.02	0.1	-	<0.02	<0.1	0.04	0.06	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW061	30 Jun 2021	ALSE-Melbourne	EM2112638	0.02	0.03	0.29	<0.02	0.08	-	<0.02	<0.1	0.02	0.05	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW061	30 Jun 2021	ALSE-Melbourne	EM2112638	0.03	0.03	0.31	<0.02	0.08	-	<0.02	<0.1	0.02	0.06	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW061	01 Jul 2021	MGT	807707	0.02	0.03	0.34	<0.01	0.1	<0.01	<0.01	<0.05	0.03	0.05	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW061	02 Dec 2021	ALSE-Melbourne	EM2124215	0.02	0.02	0.28	<0.02	0.09	-	<0.02	<0.1	<0.02	0.05	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW061	04 May 2022	ALSE-Melbourne	EM2208151	0.02	0.03	0.36	<0.02	0.05	-	<0.0											

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW062	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	0.02	0.21	<0.02	0.05	-	<0.02	<0.1	0.04	0.05	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW062	04 Dec 2023	Eurofins Environment ANZ	1051767	0.02	0.02	0.2	<0.01	0.05	<0.01	<0.01	<0.05	0.03	0.06	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW062	04 Dec 2023	ALSE-Melbourne	EM2321752	0.02	0.02	0.26	<0.02	0.05	-	<0.02	<0.1	0.02	0.07	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW062	04 Dec 2023	ALSE-Melbourne	EM2321752	0.03	0.03	0.29	<0.02	0.07	-	<0.02	<0.1	<0.02	0.06	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW062	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	0.02	0.26	<0.02	0.06	-	<0.02	<0.1	0.03	0.07	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW062	14 Nov 2024	Eurofins Environment ANZ	1161464	-	-	0.06	-	0.02	-	-	-	-	-	-	<0.01	-	-	-	-	-	-
MW062	14 Nov 2024	Eurofins Environment ANZ	1161464	0.03	0.03	0.27	<0.01	0.07	<0.01	<0.01	<0.05	0.03	0.08	0.02	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW063	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	08 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW063	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW063	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW064	26 Nov 2020	ALSE-Melbourne	EM2021043	0.05	0.04	0.54	0.04	2.05	-	<0.02	<0.1	0.04	0.14	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	30 Jun 2021	ALSE-Melbourne	EM2112638	0.17	0.06	0.61	0.02	1.14	-	<0.02	<0.1	0.04	0.15	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	01 Dec 2021	ALSE-Melbourne	EM2124215	0.37	0.08	0.36	0.02	1.34	-	<0.02	<0.1	0.05	0.16	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	04 May 2022	ALSE-Melbourne	EM2208151	0.2	0.12	0.5	0.03	1.6	-	<0.02	<0.1	0.06	0.2	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.09	<0.02	0.88	-	<0.02	<0.1	<0.02	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	26 May 2023	ALSE-Melbourne	EM2309599	0.08	0.11	0.17	<0.02	1.02	-	<0.02	<0.1	0.02	0.12	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	04 Dec 2023	Eurofins Environment ANZ	1051767	0.02	0.02	0.12	<0.01	0.52	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW064	04 Dec 2023	ALSE-Melbourne	EM2321752	0.02	0.03	0.15	<0.02	0.52	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	04 Dec 2023	ALSE-Melbourne	EM2321752	0.02	0.03	0.16	<0.02	0.51	-	<0.02	<0.1	<0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.16	<0.02	0.56	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW064	14 Nov 2024	Eurofins Environment ANZ	1161464	0.17	0.19	0.25	<0.01	0.15	<0.01	<0.01	<0.05	0.04	0.13	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW067	05 May 2022	ALSE-Melbourne	EM2208151	2.79	4.43	38.9	0.76	2.58	-	<0.04	0.9	2.38	12.7	1.16	1.53	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09
MW067	17 Nov 2022	ALSE-Melbourne	EM2223006	2.66	5.94	62.8	0.62	3.03	-	<0.02	0.8	2.5	13.7	1.81	2.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW067	24 May 2023	ALSE-Melbourne	EM2309599	2.38	6.28	59	1	7.89	-	<0.02	1.2	2.54	12.9	1.7	2.37	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW067	06 Dec 2023	ALSE-Melbourne	EM2321752	2.32	5.02	62.5	0.87	4.09	-	<0.02	0.8	2.17	11.6	1.46	2.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW067	08 May 2024	Eurofins Environment ANZ	1096549	2.3	4.3	73	0.73	4.2	<0.01	<0.01	0.68	2.1	12	1	2.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW067	08 May 2024	ALSE-Melbourne	EM2407537	2.7	5.11	75.5	1.16	5.34	-	<0.02	1	2.24	12.2	1.71	2.63	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW067	08 May 2024	ALSE-Melbourne	EM2407537	2.58	5.69	77.4	1.1	4.49	-	<0.02	0.9	2.06	12.1	1.65	2.43	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW067	19 Nov 2024	Eurofins Environment ANZ	1162531	1.8	2.9	50	0.44	1.9	<0.01	<0.01	0.54	1.9	11	0.99	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW067	19 Nov 2024	ENVIROLAB	MFK0357	2.6	4.4	60	0.92	2.7	-	<0.020	1.1	2.2	12	1.4	2.3	<0.010	<0.020	<0.020	<0.050	<0.10	<0.50
MW067	19 Nov 2024	Eurofins Environment ANZ	1162531	2.3	3.7	83	0.6	2.5	<0.01	<0.01	0.69	1.7	13	1.2	2.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW068	05 May 2022	ALSE-Melbourne	EM2208151	<0.02	0.03	0.43	<0.02	0.23	-	<0.02	<0.1	0.06	0.09	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW068	15 Nov 2022	ALSE-Melbourne	EM2223006	0.02	0.02	0.17	<0.02	0.15	-	<0.02	<0.1	0.03	0.05	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW068	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	0.02	0.26	<0.02	0.23	-	<0.02	<0.1	0.04	0.07	<0.02	0.02	<0.02	<0.02	<0.02	<		

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW071	03 May 2022	ALSE-Melbourne	EM2208151	0.11	0.11	0.25	<0.02	<0.01	-	<0.02	<0.1	0.04	0.18	0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW071	03 May 2022	ALSE-Melbourne	EM2208151	0.09	0.12	0.27	<0.02	0.01	-	<0.02	<0.1	0.04	0.17	0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW071	03 May 2022	MGT	886234	0.12	0.12	0.27	<0.01	0.01	<0.01	<0.01	<0.05	0.04	0.17	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW071	16 Nov 2022	ALSE-Melbourne	EM2223006	0.22	0.18	0.47	<0.02	<0.01	-	<0.02	<0.1	0.05	0.26	0.03	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW071	26 May 2023	ALSE-Melbourne	EM2309599	0.14	0.15	0.47	<0.02	<0.01	-	<0.02	<0.1	0.04	0.2	0.03	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW071	06 Dec 2023	ALSE-Melbourne	EM2321752	0.04	0.06	0.38	<0.02	0.01	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW071	09 May 2024	ALSE-Melbourne	EM2407537	0.02	0.05	0.51	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.07	0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW071	14 Nov 2024	Eurofins Environment ANZ	1161464	0.02	0.04	0.3	<0.01	<0.01	<0.01	<0.01	<0.05	0.01	0.06	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW074	24 May 2023	ALSE-Melbourne	EM2309599	0.63	0.54	3.05	0.08	0.7	-	<0.02	<0.1	0.2	0.85	0.12	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW074	06 Dec 2023	ALSE-Melbourne	EM2321752	0.68	0.66	3.27	0.09	0.57	-	<0.02	0.1	0.22	0.97	0.12	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW074	08 May 2024	ALSE-Melbourne	EM2407537	1.07	0.48	3.83	0.07	0.53	-	<0.02	0.2	0.29	1.06	0.16	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW074	15 Nov 2024	Eurofins Environment ANZ	1161464	0.95	0.79	4.2	0.08	0.23	<0.01	<0.01	0.09	0.26	1.3	0.23	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW075	24 May 2023	ALSE-Melbourne	EM2309599	6.9	2.02	1.2	0.08	0.68	-	<0.02	1.1	2.34	7.3	0.14	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW075	06 Dec 2023	ALSE-Melbourne	EM2321752	8.28	3.22	1.65	0.11	1.22	-	<0.02	1.6	2.85	9.69	0.23	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW075	08 May 2024	ALSE-Melbourne	EM2407537	8.68	2.62	2.41	0.18	2.83	-	<0.02	2.1	2.74	9.33	0.27	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW075	15 Nov 2024	Eurofins Environment ANZ	1161464	6.6	2.7	1.6	0.09	1.3	<0.01	<0.01	1.3	2.1	8	0.21	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW100	01 Dec 2017	MGT	575567	0.003	<0.001	0.01	<0.001	0.061	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW101	05 Dec 2017	MGT	576131	0.005	0.004	0.031	<0.001	0.0085	-	<0.001	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW102	04 Dec 2017	MGT	576131	0.015	0.019	0.29	0.01	0.26	-	<0.001	0.012	0.005	0.027	0.006	0.013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW102	28 Mar 2018	MGT	591827	0.019	0.022	0.22	0.009	0.36	-	<0.001	0.01	0.006	0.028	0.005	0.013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW102	14 Nov 2019	ALSE-Melbourne	EM1919512	0.02	<0.02	0.26	<0.02	0.61	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	0.02	0.26	0.02	0.67	-	<0.02	<0.1	<0.02	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.2	<0.02	0.93	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	29 Jun 2021	ALSE-Melbourne	EM2112638	0.02	<0.02	0.22	<0.02	0.76	-	<0.02	<0.1	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	29 Jun 2021	MGT	807703	0.02	0.02	0.24	0.02	1	<0.01	<0.01	<0.05	0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW102	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.27	<0.02	0.64	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	30 Nov 2021	ALSE-Melbourne	EM2124215	0.02	<0.02	0.15	<0.02	0.56	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	30 Nov 2021	MGT	849156	0.02	0.01	0.17	0.01	0.67	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW102	30 Nov 2021	ALSE-Melbourne	EM2124215	0.03	<0.02	0.18	<0.02	0.62	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	03 May 2022	ALSE-Melbourne	EM2208151	0.03	0.02	0.24	<0.02	0.52	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	17 Nov 2022	ALSE-Melbourne	EM2223006	0.04	<0.02	0.16	<0.02	0.52	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	25 May 2023	ALSE-Melbourne	EM2309599	0.02	<0.02	0.12	<0.02	0.46	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.06	<0.02	0.34	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	09 May 2024	ALSE-Melbourne	EM2407537	0.02	<0.02	0.11	<0.02	0.48	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW102	19 Nov 2024	Eurofins Environment ANZ	1162531	0.01	<0.01	0.08	<0.01	0.36	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW103	06 Dec 2017	MGT	577093	1.1	1.1	10	0.29	2.7	-	<0.001	0.16	0.26	1.4	0.16	0.34	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW103	05 Apr 2018	MGT	592843	1.4	2.2	12	0.4	4	-	<0.001	0.19	0.32	1.7	0.16	0.41	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW104	31 May 2016	MGT	502716	0.02	-	0.03	-	<0.01	-	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW104	28 Mar 2018	MGT	591827	0.009	0.01	0.094	<0.001	0.004	-	<0.001	0.009	0.005	0.018	0.004	0.011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW109	05 Dec 2017	MGT	576131	0.002	0.001	0.005	<0.001	0.018	-	<0.001	<0.005	<0.001	0.003	0.005	0.005	0.002	0.001	<0.001	<0.001	<0.001	<0.001
MW109	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW109	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1										

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																	
MW110	29 Jun 2021	ALSE-Melbourne	EM2112638	0.17	0.12	0.67	<0.02	<0.01	-	<0.02	<0.1	0.06	0.32	0.07	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	30 Nov 2021	ALSE-Melbourne	EM2124215	0.14	0.14	0.34	<0.02	0.01	-	<0.02	<0.1	0.04	0.22	0.04	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	05 May 2022	ALSE-Melbourne	EM2208151	0.13	0.17	0.48	<0.02	0.02	-	<0.02	<0.1	0.04	0.25	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	15 Nov 2022	ALSE-Melbourne	EM2223006	0.19	0.14	0.43	<0.02	0.02	-	<0.02	<0.1	0.05	0.26	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	15 Nov 2022	Eurofins Environment ANZ	943130	0.11	0.14	0.46	<0.01	0.02	<0.01	<0.01	0.05	0.05	0.26	0.05	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
MW110	16 Nov 2022	ALSE-Melbourne	EM2223006	0.21	0.14	0.43	<0.02	0.01	-	<0.02	<0.1	0.04	0.24	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	25 May 2023	ALSE-Melbourne	EM2309599	0.07	0.04	0.15	<0.02	0.03	-	<0.02	<0.1	<0.02	0.07	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	25 May 2023	Eurofins Environment ANZ	993983	0.04	0.04	0.16	<0.01	0.05	<0.01	<0.01	<0.05	0.01	0.06	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW110	25 May 2023	ALSE-Melbourne	EM2309599	0.07	0.05	0.18	<0.02	0.04	-	<0.02	<0.1	<0.02	0.08	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	04 Dec 2023	ALSE-Melbourne	EM2321752	0.14	0.15	0.48	<0.02	0.02	-	<0.02	<0.1	0.04	0.24	0.05	0.04	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	09 May 2024	ALSE-Melbourne	EM2407537	0.06	0.04	0.18	<0.02	0.04	-	<0.02	<0.1	0.02	0.08	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW110	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW111	04 Dec 2017	MGT	576131	0.003	0.003	0.015	<0.001	0.0015	-	<0.001	<0.005	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW111	05 Apr 2018	MGT	592843	0.005	0.003	0.007	<0.001	0.003	-	<0.001	<0.005	0.004	0.004	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001
MW111	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW111	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW111	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW111	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW111	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW111	05 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	05 Dec 2017	MGT	576131	0.001	<0.001	0.004	<0.001	0.0043	-	<0.001	<0.005	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW112	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW112	08 May 2024	Eurofins Environment ANZ	1096549	<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	<0.01	<0.01	<0.01
MW112	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01
MW113	06 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001
MW114	05 Dec 2017	MGT	576131	<0.001	<0.001	0.002	<0.001	0.0037	-	<0.001	<0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW114	28 Mar 2018	MGT	591827	<0.001	<0.001	<0.001	<0.001	0.002	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW114	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.12
MW114	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
MW116	30 May 2016	MGT	502716	1	-	1.2	-	0.04	-	<0.01	0.19	0.35	1.8	0.2	0.17	<0.01	<0.01	<0.01	<0.01	<0.01
MW116	06 Dec 2017	MGT	577093	0.041	0.055	0.32	0.012	0.14	-	<0.001	0.012	0.015	0.063	0.011	0.019	<0.001	<0.001	<0.001	<0.001	<0.001
MW116	28 Mar 2018	ALSE-Melbourne	EM1805611	0.03	0.02	0.19	<0.02	0.12	-	<0.02	<0.1	<0.02	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW116	28 Mar 2018	MGT	591827	0.0																

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)		
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW117	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW117	19 Nov 2024	Eurofins Environment ANZ	1162531	<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	<0.01	<0.01	<0.01	<0.01
MW119	07 Dec 2017	MGT	577093	<0.001	<0.001	<0.001	<0.001	0.001	-	<0.001	<0.005	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW121	04 Apr 2018	MGT	592478	0.42	0.67	5.1	0.68	37	-	0.15	0.55	1	2.8	0.5	0.87	0.067	0.036	0.014	0.014	<0.01	<0.01
MW121	20 Nov 2019	ALSE-Melbourne	EM1919885	0.87	1.12	8.64	0.68	14	-	0.02	0.5	0.75	4.06	0.38	0.61	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	20 May 2020	MGT	721332	0.24	0.5	2.7	0.58	13	0.05	0.02	0.19	0.3	1.1	0.17	0.34	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
MW121	20 May 2020	ALSE-Melbourne	EM2008583	0.42	0.6	4.43	0.57	13.8	-	0.06	0.3	0.56	1.92	0.31	0.52	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	20 May 2020	ALSE-Melbourne	EM2008583	0.4	0.52	4.98	0.48	13.7	-	0.05	0.3	0.51	1.75	0.28	0.48	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	25 Nov 2020	ALSE-Melbourne	EM2021043	3.72	4.33	35.9	2.65	43.9	-	0.12	3.2	4.65	17.3	1.93	3.64	0.09	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	29 Jun 2021	ALSE-Melbourne	EM2112638	5.37	6.04	54.7	2.92	41.5	-	<0.04	3.1	6.66	25.4	3.22	4.56	0.07	<0.04	<0.04	<0.04	<0.04	<0.10
MW121	02 Dec 2021	ALSE-Melbourne	EM2124215	2.54	2.44	20.8	1.48	19.6	-	<0.04	1.8	3.04	9.13	1.41	2.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	02 Dec 2021	ALSE-Melbourne	EM2124215	2.6	3.42	25.3	2.71	22.9	-	0.05	1.8	3.45	10.8	1.55	2.38	0.05	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	03 May 2022	ALSE-Melbourne	EM2208151	0.94	0.99	11.1	1.13	37.9	-	<0.04	0.6	1.09	3.7	0.6	1.26	0.07	<0.04	<0.04	<0.04	<0.04	<0.09
MW121	03 May 2022	ALSE-Melbourne	EM2208151	1.03	2.08	11.2	2.19	38.3	-	0.1	0.8	1	3.97	0.68	1.44	0.07	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	03 May 2022	MGT	886234	1.4	1.5	20	1.5	64	0.05	0.01	0.89	1.6	5.4	0.69	1.9	0.07	0.02	<0.01	<0.01	<0.01	<0.01
MW121	17 Nov 2022	ALSE-Melbourne	EM2223006	4.94	5.76	44.9	2.42	48	-	0.07	2.1	5.74	18.6	4.07	4.44	0.22	<0.04	<0.04	<0.04	<0.04	<0.09
MW121	24 May 2023	ALSE-Melbourne	EM2309599	0.7	0.95	7.29	0.61	17.4	-	0.13	0.4	0.78	2.94	0.45	0.73	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	04 Dec 2023	ALSE-Melbourne	EM2321752	0.14	0.17	1.25	0.1	2.65	-	0.02	<0.1	0.13	0.46	0.08	0.12	<0.02	<0.02	<0.02	<0.02	<0.05	
MW121	07 May 2024	ALSE-Melbourne	EM2407537	1.73	1.44	11.3	0.69	20.9	-	0.05	1	1.58	4.5	0.98	1.27	0.10	<0.02	<0.02	<0.02	<0.02	<0.05
MW121	15 Nov 2024	Eurofins Environment ANZ	1161464	0.48	0.42	2.3	0.16	1.5	<0.01	<0.01	0.23	0.31	1.2	0.23	0.26	<0.01	<0.01	<0.01	<0.01	<0.01	
MW122D	04 Apr 2018	MGT	592478	<0.001	<0.001	<0.001	<0.001	0.007	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
MW122D	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122D	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	
MW122S	04 Apr 2018	MGT	592478	0.047	0.058	0.47	0.017	0.27	-	<0.001	0.009	0.008	0.04	0.005	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	
MW122S	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	0.56	<0.05	0.1	-	<0.05	<0.2	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	
MW122S	20 May 2020	ALSE-Melbourne	EM2008583	0.03	0.02	0.3	<0.02	0.36	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	25 Nov 2020	ALSE-Melbourne	EM2021043	0.04	0.02	0.36	<0.02	0.42	-	<0.02	<0.1	0.03	0.05	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.06	<0.02	0.12	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	01 Dec 2021	ALSE-Melbourne	EM2124215	0.04	0.04	0.38	<0.02	0.1	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	03 May 2022	ALSE-Melbourne	EM2208151	0.02	0.02	0.24	<0.02	0.3	-	<0.02	<0.1	0.03	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	05 Dec 2023	ALSE-Melbourne	EM2321752	0.15	0.1	0.54	<0.02	0.26	-	<0.02	<0.1	0.04	0.16	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	07 May 2024	ALSE-Melbourne	EM2407537	0.04	<0.02	0.31	<0.02	0.16	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	
MW122S	19 Nov 2024	Eurofins Environment ANZ	1162531	0.03	0.03	0.33	0.01	0.32	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
MW200	17 Oct 2017	MGT	568720	<0.001	<0.001	<0.001	<0.001	<0.001	-	<											

Data source is Defence Esdat.

Location Code	Date	Lab Name	Lab Report Number																		
MW202	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	01 Dec 2021	MGT	849156	<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	<0.01	<0.01	<0.01	<0.01
MW202	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW202	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW203	19 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW203	19 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW203	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW204	17 Oct 2017	MGT	568720	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW204	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW204	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	05 Dec 2023	Eurofins Environment ANZ	1051767	<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	<0.01	<0.01	<0.01	<0.01
MW204	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW204	14 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW204	14 Nov 2024	Eurofins Environment ANZ	1161464	-	-	<0.01	-	<0.01	-	-	-	-	-	-	<0.01	-	-	-	-	-	-
MW205	19 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW205	19 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW205	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW205	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	19 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW206	19 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW206	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW206	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	25 Nov 2020	MGT	760007	<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	<0.01	<0.01	<0.01	<0.01
MW206	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW206	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW207	17 Oct 2017	MGT	568720	0.004	0.007	0.012	<0.001	0.004	-	<0.001	<0.005	<0.005	<0.005	0.006	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW207	07 Dec 2017	MGT	577093	0.005	0.003	0.01	<0.001	0.006	-	<0.001	<0.005	0.004	0.005	0.004	0.019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW207	04 Apr 2018	MGT	592478	0.004	0.003	0.008	<0.001	0.005													

Data source is Defence Esdat.

Location Code	Date	Lab Name	Lab Report Number																		
MW207	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	01 Dec 2021	MGT	849156	<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	<0.01	<0.01	<0.01	<0.01
MW207	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW207	07 May 2024	Eurofins Environment ANZ	1096549	<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	<0.01	<0.01	<0.01	<0.01
MW207	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW208	19 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW208	19 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW208	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW208	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	03 May 2022	MGT	886234	<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	<0.01	<0.01	<0.01	<0.01
MW208	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	05 Dec 2023	Eurofins Environment ANZ	1051767	<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	<0.01	<0.01	<0.01	<0.01
MW208	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW208	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW209	19 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW209	19 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW209	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW209	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	25 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW209	15 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW210	20 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW210	20 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW210	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW210	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW210	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW210	18 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW210	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW210	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW210																					

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW210	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW210	14 Nov 2024	ENVIROLAB	MFK0303	<0.00040	<0.0010	<0.00020	<0.0010	<0.00020	-	<0.0020	<0.0040	<0.0020	<0.00040	<0.00040	<0.00020	<0.0010	<0.0020	<0.0020	<0.0050	<0.010	<0.050
MW210	14 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW210	14 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01	<0.01
MW211	20 Oct 2017	MGT	568935	<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	<0.01	<0.01	<0.01	<0.01
MW211	20 Oct 2017	MGT	568935-1	<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	<0.01	<0.01	<0.01	<0.01
MW211	07 Dec 2017	MGT	577093	<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	<0.001	<0.001	<0.001	<0.001
MW212	03 Apr 2018	MGT	592478	1.1	1.5	11	1.2	47	-	0.013	0.28	0.59	1.5	0.3	0.96	0.024	<0.01	<0.01	<0.01	<0.01	<0.01
MW212	04 Apr 2018	MGT	592478	1.1	1.9	9.7	1.3	38	-	<0.01	0.32	0.61	1.6	0.31	0.9	0.021	<0.01	<0.01	<0.01	<0.01	<0.01
MW212	20 Nov 2019	ALSE-Melbourne	EM1919885	0.68	1.05	13.5	1.22	20.4	-	<0.05	<0.2	0.28	1.51	0.27	0.98	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
MW212	20 May 2020	ALSE-Melbourne	EM2008583	0.94	1.4	15.4	2.61	42.2	-	<0.02	0.2	0.44	1.74	0.41	1.28	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	25 Nov 2020	ALSE-Melbourne	EM2021043	0.54	0.79	9.13	1.62	28.6	-	<0.02	0.2	0.29	0.99	0.27	0.92	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	29 Jun 2021	ALSE-Melbourne	EM2112638	0.52	0.73	9.36	1.6	36.8	-	<0.02	0.3	0.29	0.83	0.24	0.99	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	30 Nov 2021	ALSE-Melbourne	EM2124215	0.43	0.67	8.79	1.48	28.9	-	<0.02	<0.1	0.24	0.9	0.24	0.9	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	03 May 2022	ALSE-Melbourne	EM2208151	0.44	0.98	7.61	2.11	33.7	-	<0.02	<0.1	0.18	0.72	0.21	0.76	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	17 Nov 2022	ALSE-Melbourne	EM2223006	0.42	0.65	8.19	1.34	29.1	-	<0.02	0.2	0.23	0.82	0.21	0.82	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	24 May 2023	ALSE-Melbourne	EM2309599	0.32	0.53	7.66	1.25	32.9	-	<0.02	<0.1	0.17	0.69	0.13	0.76	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	04 Dec 2023	ALSE-Melbourne	EM2321752	0.35	0.61	7.02	1.04	27.5	-	<0.02	<0.1	0.19	0.71	0.17	0.69	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	07 May 2024	ALSE-Melbourne	EM2407537	0.35	0.28	6.36	1.64	44.2	-	<0.02	<0.1	0.11	0.42	0.16	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW212	15 Nov 2024	Eurofins Environment ANZ	1161464	0.25	0.33	4.6	0.53	21	0.03	<0.01	<0.05	0.07	0.4	0.2	0.39	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
MW213	03 Apr 2018	MGT	592478	2.2	2.1	8.5	0.085	0.6	-	<0.01	0.41	0.81	3.4	0.46	0.45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW213	04 Apr 2018	MGT	592478	2.2	2.3	9.4	0.098	0.63	-	<0.01	0.42	0.89	3.4	0.5	0.49	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW213	20 Nov 2019	ALSE-Melbourne	EM1919885	1.92	1.82	14	0.12	0.28	-	<0.05	<0.2	0.54	3.74	0.46	0.59	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
MW213	20 May 2020	ALSE-Melbourne	EM2008583	2.29	2.29	16.7	0.32	1.86	-	<0.02	0.4	0.84	3.53	0.63	0.73	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	25 Nov 2020	ALSE-Melbourne	EM2021043	1.29	1.33	9.9	0.12	0.47	-	<0.02	0.5	0.55	1.96	0.43	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	29 Jun 2021	ALSE-Melbourne	EM2112638	1.15	1.11	10.1	0.11	0.44	-	<0.02	0.2	0.5	1.61	0.36	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	30 Nov 2021	ALSE-Melbourne	EM2124215	1.09	1.27	9.77	0.18	0.41	-	<0.02	0.2	0.41	1.64	0.37	0.63	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	03 May 2022	ALSE-Melbourne	EM2208151	1.19	1.78	8.36	0.3	0.68	-	<0.02	0.2	0.35	1.53	0.35	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	17 Nov 2022	ALSE-Melbourne	EM2223006	1.09	1.06	8.94	0.13	0.42	-	<0.02	0.2	0.38	1.45	0.32	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	24 May 2023	ALSE-Melbourne	EM2309599	0.84	0.97	10.6	0.19	0.61	-	<0.02	0.2	0.29	1.33	0.2	0.61	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	04 Dec 2023	ALSE-Melbourne	EM2321752	1	1.25	11	0.22	0.63	-	<0.02	<0.1	0.31	1.36	0.31	0.75	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	07 May 2024	ALSE-Melbourne	EM2407537	0.88	0.5	9.96	0.19	0.71	-	<0.02	<0.1	0.19	0.87	0.27	0.64	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW213	15 Nov 2024	Eurofins Environment ANZ	1161464	0.89	0.76	6.7	0.1	0.35	<0.01	<0.01	0.08	0.18	1	0.19	0.45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW214D	03 Apr 2018	MGT	592478	0.21	0.27	1.9	0.13	3.9	-	<0.001	0.028	0.045	0.27	0.048	0.13	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW214D	03 Apr 2018	MGT	592478	0.25	0.36	2.1	0.16	4.8	-	<0.001	0.034	0.056	0.3	0.059	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW214D	20 Nov 2019	ALSE-Melbourne	EM1919885	0.55	0.73	6.57	0.32	5.49	-	<0.02	<0.1	0.08	0.86	0.11	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW214D	20 May 2020	ALSE-Melbourne	EM2008583	0.57	0.77	4.74	0.37	7.23	-	<0.02	<0.1	0.15	0.81	0.17	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW214D	25 Nov 2020	ALSE-Melbourne	EM2021043	0.52	0.6	4.95	0.43	9.5	-	<0.02	<0.1	0.12	0.58	0.13	0.3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW214D	29 Jun 2021	ALSE-Melbourne	EM2112638	0.52	0.62	4.8	0.34	11	-	<0.02	<0.1	0.13	0.65	0.15	0.34	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW214D	29 Jun 2021	ALSE-Melbourne	EM2112638	0.49	0.62	5.01	0.34	9.52	-	<0.02	0.1	0.12	0.67	0.14	0.36	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW214D	29 Jun 2021	MGT	807707	0.5	0.69	6	0.69	14	0.04	<0.01	0.08	0.13	0.63	0.14	0.36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW214D	30 Nov 2021	ALSE-Melbourne	EM2124215	0.46	0.61	4.71	0.34	7.76	-	<0.02	<0.1	0.11	0.61	0.13	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW214D	05 May 2022	ALSE-Melbourne	EM2208151	0.53	0.65	5.27	0.37	8													

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
MW215D	03 May 2022	ALSE-Melbourne	EM2208151	0.28	0.29	1.89	0.07	0.49	-	<0.02	<0.1	0.04	0.22	0.05	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215D	03 May 2022	ALSE-Melbourne	EM2208151	0.24	0.32	1.97	0.07	0.44	-	<0.02	<0.1	0.05	0.2	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215D	03 May 2022	MGT	886234	0.26	0.36	3.1	0.06	0.65	<0.01	<0.01	<0.05	0.04	0.24	0.05	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW215D	16 Nov 2022	ALSE-Melbourne	EM2223006	0.28	0.39	2.24	0.08	0.58	-	<0.02	<0.1	0.05	0.3	0.05	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215D	24 May 2023	ALSE-Melbourne	EM2309599	0.28	0.37	2.23	0.08	0.51	-	<0.02	<0.1	0.04	0.3	0.03	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215D	06 Dec 2023	ALSE-Melbourne	EM2321752	0.29	0.38	2.33	0.09	0.49	-	<0.02	<0.1	0.05	0.32	0.06	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215D	08 May 2024	ALSE-Melbourne	EM2407537	0.34	0.3	2.19	0.05	0.43	-	<0.02	<0.1	0.05	0.26	0.06	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215D	15 Nov 2024	Eurofins Environment ANZ	1161464	0.21	0.33	2.1	0.09	0.36	<0.01	<0.01	<0.05	0.07	0.3	0.07	0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW215S	04 Apr 2018	MGT	592478	1.2	2	12	0.48	5.6	-	<0.01	0.15	0.34	1.9	0.25	0.48	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW215S	04 Apr 2018	MGT	592478	1.4	2.1	13	0.54	5.8	-	<0.01	0.2	0.43	2.6	0.29	0.59	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW215S	04 Apr 2018	ALSE-Melbourne	EM1805793	1.21	1.92	14	0.47	5.04	-	<0.02	<0.1	0.39	2.5	0.32	0.58	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	04 Apr 2018	MGT	592478	1.4	2.4	14	0.57	6.4	-	<0.01	0.21	0.43	2.6	0.32	0.61	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW215S	19 Nov 2019	ALSE-Melbourne	EM1919885	2.25	3.49	19.4	0.91	7.37	-	<0.02	0.3	0.66	5.34	0.43	0.92	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	20 Nov 2019	ALSE-Melbourne	EM1919885	1.94	3.15	16.8	0.9	7.96	-	<0.02	0.2	0.57	4.6	0.38	0.89	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	20 May 2020	ALSE-Melbourne	EM2008583	1.91	4.18	13.5	1.22	5.89	-	<0.02	0.4	0.76	4.29	0.53	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	25 Nov 2020	ALSE-Melbourne	EM2021043	2.67	3.57	20.4	1.1	13.2	-	<0.02	0.6	1.14	3.98	0.67	1.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	29 Jun 2021	ALSE-Melbourne	EM2112638	3.15	4.16	25	1.65	12.9	-	<0.02	0.8	1.23	6.51	0.86	1.43	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	30 Nov 2021	MGT	849156	5.6	6.6	39	2.4	29	<0.01	<0.01	1.1	2.1	9.9	1.4	2.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW215S	30 Nov 2021	ALSE-Melbourne	EM2124215	5.18	7.01	43.9	4.32	27.3	-	<0.02	1	2.15	10.6	1.66	2.73	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	30 Nov 2021	ALSE-Melbourne	EM2124215	5.47	7.13	48	4.22	26.8	-	<0.02	1.2	2.39	10.3	1.76	2.76	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	03 May 2022	ALSE-Melbourne	EM2208151	1.87	2.9	16	1.11	9.03	-	<0.02	0.3	0.58	3.05	0.43	0.82	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	16 Nov 2022	ALSE-Melbourne	EM2223006	7.1	10.1	51.1	2.4	29	-	<0.04	1.3	2.72	13.3	1.59	2.92	<0.04	<0.04	<0.04	<0.04	<0.04	<0.09
MW215S	24 May 2023	ALSE-Melbourne	EM2309599	6.54	7.46	43.9	2.62	35	-	<0.02	1.7	2.58	13.9	1.48	2.97	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	06 Dec 2023	ALSE-Melbourne	EM2321752	7.99	8.97	48.2	2.53	36.3	-	<0.02	1	2.83	14.2	1.76	2.51	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	08 May 2024	ALSE-Melbourne	EM2407537	9.58	11.1	63.2	3.37	44.7	-	<0.02	1.4	2.66	20.8	1.92	2.61	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW215S	15 Nov 2024	Eurofins Environment ANZ	1161464	4.1	4.3	21	0.66	12	<0.01	<0.01	0.59	1.4	8.2	0.84	0.99	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW216	28 Mar 2018	MGT	591827	0.008	0.01	0.062	<0.001	0.014	-	<0.001	<0.005	0.004	0.02	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW216	28 Mar 2018	MGT	591827	0.008	0.009	0.062	<0.001	0.014	-	<0.001	<0.005	0.005	0.02	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW217D	29 Mar 2018	MGT	591914	0.002	0.001	0.006	<0.001	0.017	-	<0.001	<0.005	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW217D	29 Mar 2018	MGT	591914	0.002	0.002	0.006	<0.001	0.019	-	<0.001	<0.005	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW217D	29 Mar 2018	MGT	591914	0.004	0.003	0.013	<0.001	0.034	-	<0.001	<0.005	0.003	0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW217D	29 Mar 2018	ALSE-Melbourne	EM1805570	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	
MW217D	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.02	<0.02	<0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	02 Jul 2021	MGT	807707	<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	<0.01	<0.01	<0.01	<0.01
MW217D	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW217D	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<		

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2020 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2020 Freshwater 99%					0.00023							19							
PFAS NEMP 2020 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																	
MW218	20 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	29 Jun 2021	MGT	807707	<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	<0.01	<0.01	<0.01
MW218	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	24 May 2023	Eurofins Environment ANZ	993983	<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	<0.01	<0.01	<0.01
MW218	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW218	14 Nov 2024	Eurofins Environment ANZ	1161464	<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	<0.01	<0.01	<0.01
MW219	05 Dec 2017	MGT	576131	5.5	1.3	3	0.6	8.2	-	<0.001	1.8	3	5	0.18	0.36	0.005	<0.001	<0.001	<0.001	<0.001
MW219	05 Apr 2018	MGT	592843	9.7	2.6	1.9	0.24	7.6	-	<0.001	2.3	2.7	6.8	0.12	0.18	<0.001	<0.001	<0.001	<0.001	<0.001
MW219	15 Nov 2019	ALSE-Melbourne	EM1919512	6	2.23	3.17	0.34	12.9	-	<0.02	1.5	2.41	10.6	0.34	0.4	<0.02	<0.02	<0.02	<0.02	<0.05
MW219	15 Nov 2019	MGT	689063	7.6	4	3.5	0.24	13	0.07	<0.01	1.6	2.3	3.8	0.27	0.36	0.02	0.01	<0.01	<0.01	<0.01
MW219	15 Nov 2019	ALSE-Melbourne	EM1919512	5.74	2.17	3.66	0.4	13.7	-	<0.02	1.5	2.37	10.6	0.36	0.46	0.02	<0.02	<0.02	<0.02	<0.05
MW219	20 May 2020	ALSE-Melbourne	EM2008583	8.44	2.72	1.95	0.16	7.45	-	<0.02	2.2	3	11.6	0.3	0.23	<0.02	<0.02	<0.02	<0.02	<0.05
MW219	25 Nov 2020	ALSE-Melbourne	EM2021043	6.24	1.6	2.62	0.39	9.82	-	<0.02	2.4	2.89	5.96	0.19	0.28	<0.02	<0.02	<0.02	<0.02	<0.05
MW222D	05 May 2021	MGT	792853	<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	<0.01	<0.01	<0.01
MW222D	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01
MW222S	05 May 2021	MGT	792853	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW222S	28 Jun 2021	MGT	807368	<0.01	<0.01	0.04	<0.01	0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW223D	05 May 2021	MGT	792853	0.1	0.07	0.17	<0.01	<0.01	<0.01	<0.01	<0.05	0.04	0.08	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW223D	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01
MW223D	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01
MW223D	28 Jun 2021	ALSE-Melbourne	EM2112619	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
MW223S	05 May 2021	MGT	792853	<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	<0.01	<0.01	<0.01
MW223S	28 Jun 2021	MGT	807368	0.17	0.16	0.57	<0.01	<0.01	<0.01	<0.01	<0.05	0.05	0.11	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
MW224D	05 May 2021	MGT	792853	<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	<0.01	<0.01	<0.01
MW224D	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01
MW224S	05 May 2021	MGT	792853	<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	<0.01	<0.01	<0.01
MW224S	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01
MW225D	05 May 2021	MGT	792853	<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	<0.01	<0.01	<0.01
MW225D	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01
MW225S	05 May 2021	MGT	792853	<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	<0.01	<0.01	<0.01
MW225S	28 Jun 2021	MGT	807368	<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	<0.01	<0.01	<0.01

Environmental Standards
HEPA, 2025, PFAS NEMP 3.0 Drinking Water
HEPA, 2025, PFAS NEMP 3.0 Freshwater 99%
HEPA, 2025, PFAS NEMP 3.0 Recreational Water

Table 8 Groundwater Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW001	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW002	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW003	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.001	<0.005	<0.005
MW003	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW003	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW010	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.82	7.26	7.89
MW014	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW014	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	7.46	13.91	15.918
MW014	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	8.51	17.6	20.684
MW015	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW015	07 Sep 2017	MGT	562666	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	15.4	26.5	28.31
MW015	07 Sep 2017	MGT	562666-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	15.4	26.5	28.31
MW015	07 Sep 2017	MGT	562666	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	16.5	27.99	29.75
MW015	07 Sep 2017	ALSE-Melbourne	EM1712380	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.9	32.8	35.9
MW015	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	10.7	20.43	22.57
MW015	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	11.6	20.33	22.56
MW015	21 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	26.4	41.7	46.1
MW015	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.9	48.0	54.2
MW015	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.4	33.9	37.0
MW016	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW016	07 Sep 2017	MGT	562666	<0.01	6	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	173	202.1	214.29
MW016	07 Sep 2017	MGT	562666	<0.01	6.9	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	206	239.4	253.54
MW016	07 Sep 2017	MGT	562666-1	<0.01	6.9	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	206	239.4	253.54
MW016	07 Sep 2017	ALSE-Melbourne	EM1712380	<0.05	8.38	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	438	484	502
MW016	20 Oct 2017	MGT	568935	<0.2	4.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	232	256.7	267.4
MW016	05 Dec 2017	MGT	576131	<0.01	4.1	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	282	320.4	336.06
MW016	05 Dec 2017	MGT	576131	<0.01	5.4	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	310	350.7	367.66
MW016	04 Apr 2018	MGT	592478	<0.2	3.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	598	737.6	779.6
MW016	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	2.93	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	156	182	196
MW016	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	2.60	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	182	209	224
MW016	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	3.34	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	295	354	381
MW016	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	3.22	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	207	247	265
MW017	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW017	20 Oct 2017	MGT	568935	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	9.6	17.58	19.18
MW017	06 Dec 2017	MGT	577093	<0.001	<0.005	0.002	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	25.5	32.342	34.692
MW017	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	16.3	21.48	23.58
MW017	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	23.6	29.8	32.7
MW017	20 May 2020	MGT	721332	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	17.85	23.15	26.66
MW017	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25	33.0	37.8
MW017	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	42	49.8	55.0
MW017	25 Nov 2020	MGT	760007	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.3	8.7	9.54
MW017	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.92	9.93	10.4
MW017	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.71	9.76	10.2
MW017	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.9	22.8	23.6
MW017	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.8	18.2	20.0
MW017	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.9	16.9	18.4
MW017	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.88	7.56	7.91
MW017	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.5	16.0	16.8

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW017	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.2	15.2	16.2
MW017	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.24	9.45	10.0
MW017	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.4	8.87	9.47
MW018	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW018	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW018	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.033	0.041	0.047
MW018	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.038	0.047	0.053
MW018	04 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.029	0.038	0.044
MW018	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
MW018	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW018	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.11	0.11
MW018	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW018	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
MW018	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW018	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
MW018	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW018	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.16	0.18
MW019	06 Dec 2017	MGT	577093	<0.001	0.006	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.144	0.375	0.43
MW019	21 Nov 2019	MGT	689708	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	0.47	0.52
MW019	21 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23	0.48	0.52
MW019	21 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23	0.45	0.49
MW019	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46	0.80	0.82
MW019	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	0.47	0.47
MW019	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.39	0.41
MW019	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.28	0.31
MW019	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.30	0.33
MW019	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.24	0.26
MW019	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW019	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.12	0.12
MW019	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.18	0.2
MW020	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.165	0.299	0.325
MW021	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW021	05 Sep 2017	MGT	562666	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.33	0.43	0.47
MW021	05 Sep 2017	MGT	562666-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.33	0.43	0.47
MW021	05 Sep 2017	MGT	562666	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.5	0.55
MW021	05 Sep 2017	ALSE-Melbourne	EM1712380	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.57	0.65	0.72
MW021	01 Dec 2017	MGT	575567	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.445	0.535	0.595
MW022	01 Dec 2017	MGT	575567	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.017	0.028	0.031
MW023	01 Dec 2017	MGT	575567	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.002	<0.005	0.005
MW025	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	0.009	<0.002	0.005	<0.002	<0.002	0.011	<0.002	4.14	4.43	4.61
MW025	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	1.54	1.73	1.73
MW025	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.36	2.56	2.66
MW025	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.07	2.29	2.36
MW025	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.94	2.16	2.23
MW025	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.47	2.73	2.83
MW025	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	0.05	<0.05	4.74	4.99	5.20
MW025	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.87	4.08	4.21
MW025	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	0.04	<0.05	4.25	4.45	4.63
MW025	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	0.05	<0.05	5.07	5.31	5.52
MW027	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.05	<0.1
MW027	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW028	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW028	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	2.19	2.487	2.671
MW028	16 Feb 2018	MGT	585592	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.68	0.859	0.975
MW028	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.57	3.43	3.79
MW028	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.59	3.44	3.87
MW028	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.65	2.39	2.55

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW028	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.41	1.65	1.76
MW028	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.64	2.30	2.50
MW028	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.96	2.40	2.61
MW028	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.72	2.36	2.55
MW028	25 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.75	2	2.17
MW028	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.25	1.38	1.48
MW028	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.38	1.56	1.67
MW028	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.74	2.02	2.25
MW028	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.65	1.91	2.07
MW028	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2	2.26	2.44
MW028	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.87	0.89	0.92
MW028	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.63	0.73	0.82
MW029	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW029	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.242	0.304	0.329
MW029	16 Feb 2018	MGT	585592	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.135	0.157	0.168
MW029	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.33	0.47	0.53
MW029	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22	0.43	0.46
MW029	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.22	0.22
MW029	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.07	0.07
MW029	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.37	0.37
MW029	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.13	0.13
MW029	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.24	0.24
MW029	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.27	0.27
MW029	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.23	0.23
MW029	29 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW029	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW029	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.06	0.06
MW029	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.28	0.31
MW030	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW030	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.202	0.24	0.253
MW030	16 Feb 2018	MGT	585592	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.111	0.119	0.124
MW030	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW030	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.12	0.12
MW030	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
MW030	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW030	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW030	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
MW030	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
MW030	29 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
MW030	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW030	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW030	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
MW030	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW030	15 Nov 2024	ENVIROLAB	MFK0303	<0.0010	0.00082	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	0.025	-	0.043
MW031	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW031	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.301	0.419	0.481
MW031	16 Feb 2018	MGT	585592	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.085	0.12	0.14
MW033	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.044	0.066	0.069
MW033	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.036	0.062	0.065
MW033	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.04	0.04
MW033	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW033	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW033	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW033	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW033	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW033	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW033	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW033	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW033	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW033	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW034	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0256	0.0306	0.0326
MW034	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	0.06
MW034	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04
MW034	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW034	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW034	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW034	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW034	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW035	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0391	0.0971	0.1081
MW035	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.017	0.073	0.086
MW036	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0753	0.1073	0.1233
MW036	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.044	0.076	0.091
MW036	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.08	0.14	0.14
MW036	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.12	0.16
MW036	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
MW036	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW036	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
MW036	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW036	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW036	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW036	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04
MW036	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
MW038	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW038	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	3.719	4.144	4.416
MW038	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	3.567	4.021	4.273
MW039	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW039	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.026	0.194	0.245
MW040	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW040	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1.06	1.17	1.228
MW040	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	1.09	1.201	1.257
MW041	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.422	0.542	0.59
MW041	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.285	0.395	0.429
MW041	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.41	0.44
MW041	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42	0.50	0.55
MW041	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.28	0.28
MW041	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22	0.25	0.25
MW041	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.24	0.26
MW041	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23	0.27	0.27
MW041	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.32	0.35
MW041	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33	0.38	0.40
MW041	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.29	0.36	0.39
MW041	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.36	0.39
MW041	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	0.42	0.46
MW041	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	0.38	0.40
MW041	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.5	0.52
MW042	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW043	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW043	01 Dec 2017	MGT	575567	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.011	0.011
MW043	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	0.03	0.03
MW043	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW043	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW043	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW043	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW044	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW044	01 Dec 2017	MGT	575567	<0.001	0.012	0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.281	0.411	0.44
MW045	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW045	01 Dec 2017	MGT	575567	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.412	0.689	0.731
MW045	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44	0.71	0.74
MW046	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW046	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.079	0.171	0.18
MW046	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.17	0.17
MW046	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.18	0.18
MW046	20 May 2020	MGT	721332	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.13	0.13
MW046	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.20	0.20
MW046	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.12	0.12
MW046	30 Jun 2021	ALSE-Melbourne	EM2113696	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.11	0.11
MW046	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.12	0.12
MW046	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.12	0.12
MW046	01 Dec 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.15	0.15
MW046	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.13	0.13
MW046	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.15	0.15
MW046	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.12	0.12
MW046	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.12	0.12
MW046	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.08	0.08
MW046	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
MW046	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
MW046	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.15	0.15
MW047	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.46	0.605	0.649
MW047	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.28	0.407	0.44
MW047	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26	0.36	0.38
MW047	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	0.42	0.44
MW047	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23	0.31	0.31
MW047	30 Jun 2021	ALSE-Melbourne	EM2113696	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.28	0.28
MW047	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.29	0.29
MW047	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.38	0.40
MW047	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.28	0.28
MW047	29 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.24	0.24
MW047	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	0.25	0.25
MW047	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.34	0.36
MW048	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW048	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.221	0.317	0.339
MW049	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.142	0.226	0.244
MW050	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.24	0.29	0.308
MW051	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.287	0.339	0.354
MW051	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.265	0.31	0.32
MW051	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.94	1.16	1.22
MW051	26 Nov 2020	MGT	760007	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.07	1.33	1.4
MW051	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.11	1.32	1.38
MW051	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.6	0.70	0.72
MW051	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.29	0.29
MW051	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.42	0.44

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW051	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.41	0.51	0.53
MW051	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.43	0.46
MW051	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.12	0.12
MW051	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.13	0.13
MW051	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
MW051	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.12	0.12
MW051	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.17	0.17
MW051	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.19	0.2
MW051	19 Nov 2024	ENVIROLAB	MFK0357	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	0.14	-	0.24
MW052	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0326	0.0826	0.0856
MW053	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW053	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.095	0.115	0.122
MW053	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.107	0.127	0.134
MW053	21 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW054	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.002	<0.005	<0.005
MW054	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.001	<0.005	<0.005
MW054	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW054	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW054	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW054	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW054	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW054	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW054	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW054	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	0.06	<0.1
MW054	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04
MW054	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.28	0.30
MW054	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.25	0.27	0.29
MW054	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.32	0.35
MW054	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	0.25	0.29
MW056	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0069	0.0069	0.0069
MW057	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.09	0.15	0.18
MW058	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.102	0.194	0.268
MW059	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW059	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW060	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.19	7.98	8.46
MW061	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43	0.56	0.56
MW061	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.37	0.49	0.52
MW061	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.39	0.53	0.56
MW061	01 Jul 2021	MGT	807707	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.44	0.58	0.61
MW061	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.37	0.47	0.49
MW061	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41	0.53	0.56
MW061	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	0.44	0.46
MW061	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33	0.40	0.42
MW061	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.42	0.44
MW061	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.39	0.41
MW061	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.41	0.43
MW061	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	0.36	0.36
MW061	08 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	0.22	0.23
MW061	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	0.36	0.36
MW061	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.39	0.39
MW061	14 Nov 2024	Eurofins Environment ANZ	1161464	-	<0.05	-	-	-	-	-	-	-	-	-	0.08	-	-
MW061	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.27	0.37	0.39
MW062	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36	0.62	0.62
MW062	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	0.59	0.59
MW062	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	0.53	0.56
MW062	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.4	0.57	0.60
MW062	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	0.55	0.58

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW062	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26	0.38	0.40
MW062	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.25	0.41	0.44
MW062	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.45	0.47
MW062	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36	0.50	0.53
MW062	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.45	0.47
MW062	14 Nov 2024	Eurofins Environment ANZ	1161464	-	<0.05	-	-	-	-	-	-	-	-	-	0.08	-	-
MW062	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	0.53	0.57
MW063	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW063	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW063	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW063	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW063	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW063	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW063	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW063	08 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
MW063	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW063	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW063	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW064	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.59	2.86	2.94
MW064	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.75	2.14	2.22
MW064	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.7	2.31	2.41
MW064	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.1	2.59	2.74
MW064	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.97	1.03	1.03
MW064	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.19	1.43	1.54
MW064	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	0.23	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.64	0.93	0.95
MW064	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67	0.73	0.76
MW064	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67	0.72	0.75
MW064	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.72	0.77	0.77
MW064	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.77	1.03
MW067	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	41.5	62.9	68.1
MW067	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	65.8	89.6	96.1
MW067	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	66.9	90.0	97.3
MW067	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	66.6	87.0	92.9
MW067	08 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	77.2	97.68	103.6
MW067	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	80.8	103	111
MW067	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	81.9	104	111
MW067	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	51.9	70.13	74.11
MW067	19 Nov 2024	ENVIROLAB	MFK0357	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	63	-	90
MW067	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	85.5	106.99	112.12
MW068	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.66	0.85	0.88
MW068	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	0.43	0.45
MW068	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.49	0.62	0.64
MW068	25 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.64	0.84	0.88
MW068	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.57	0.75	0.77
MW068	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	0.50	0.52
MW068	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41	0.56	0.56
MW068	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.34	0.37
MW069	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.72	0.80
MW069	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.33	0.33
MW069	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.61	0.70
MW069	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW069	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.47	0.64
MW069	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.57	0.6
MW070	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.66	4.29	4.53
MW070	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.43	6.07	6.30
MW070	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.28	4.75	4.99
MW070	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3	3.44	3.59

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW071	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.25	0.60	0.71
MW071	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.60	0.72
MW071	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.28	0.64	0.82
MW071	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47	1.03	1.21
MW071	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47	0.88	1.03
MW071	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.39	0.52	0.58
MW071	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.51	0.63	0.68
MW071	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	0.43	0.47
MW074	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.75	5.70	6.32
MW074	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.84	6.08	6.83
MW074	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.36	7.28	9.07
MW074	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	4.43	7.46	8.56
MW075	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.88	19.7	21.8
MW075	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.87	25.6	28.9
MW075	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.24	28.5	36.7
MW075	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.9	21.2	27.79
MW100	01 Dec 2017	MGT	575567	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.071	0.074	0.074
MW101	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0395	0.0465	0.0505
MW102	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.55	0.628	0.657
MW102	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.58	0.661	0.692
MW102	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.87	0.94	0.94
MW102	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.93	0.99	1.03
MW102	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.13	1.15	1.15
MW102	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98	1.04	1.04
MW102	29 Jun 2021	MGT	807703	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.24	1.3	1.34
MW102	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.91	0.95	0.95
MW102	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.71	0.74	0.74
MW102	30 Nov 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.84	0.89	0.91
MW102	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.8	0.83	0.83
MW102	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.76	0.83	0.85
MW102	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.68	0.73	0.73
MW102	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.58	0.62	0.62
MW102	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.4	0.41	0.41
MW102	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.59	0.62	0.62
MW102	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.44	0.47	0.47
MW103	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	12.7	16.12	17.51
MW103	05 Apr 2018	MGT	592843	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	16	20.18	22.78
MW104	31 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW104	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.098	0.154	0.164
MW109	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.023	0.038	0.042
MW109	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW109	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW109	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW109	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.02	0.02
MW109	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.06	0.06
MW109	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.15	0.15
MW109	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	0.37	0.37
MW109	26 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.08	0.08
MW109	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.12	0.12
MW109	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.07	0.07
MW109																	

Table 8 Groundwater Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW110	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67	1.33	1.45
MW110	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	0.81	0.95
MW110	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.5	1.00	1.17
MW110	15 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.45	1.03	1.17
MW110	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.48	1.03	1.19
MW110	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44	1.01	1.15
MW110	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.33	0.37
MW110	25 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	0.34	0.38
MW110	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22	0.38	0.43
MW110	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.5	1.01	1.16
MW110	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22	0.39	0.43
MW110	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
MW111	04 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0165	0.0235	0.0265
MW111	05 Apr 2018	MGT	592843	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.023	0.03
MW111	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW111	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW111	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW111	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW111	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW111	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW112	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0083	0.0103	0.0103
MW112	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW112	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW112	08 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW112	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW113	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW114	05 Dec 2017	MGT	576131	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0057	0.0067	0.0067
MW114	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.005	<0.005
MW114	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	0.08	0.08
MW114	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW116	30 May 2016	MGT	502716	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-	-	-	-
MW116	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.46	0.621	0.688
MW116	28 Mar 2018	ALSE-Melbourne	EM1805611	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.40	0.42
MW116	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.31	0.431	0.48
MW116	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.35	0.481	0.531
MW117	06 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.01	0.01
MW117	04 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	0.009	0.009
MW117	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW117	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW117	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW117	30 Jun 2021	ALSE-Melbourne	EM2112638	<													

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW117	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW117	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW119	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.001	<0.005	<0.005
MW121	04 Apr 2018	MGT	592478	<0.01	0.41	0.24	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	42.1	48.89	50.521
MW121	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	0.27	0.09	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.6	30.2	32.0
MW121	20 May 2020	MGT	721332	<0.01	0.13	0.03	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	15.7	18.2	19.47
MW121	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	0.20	0.06	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.2	22.5	23.8
MW121	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	0.19	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.7	22.6	23.7
MW121	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	1.40	0.11	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	79.8	116	123
MW121	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	1.89	0.07	<0.05	<0.04	<0.10	<0.04	<0.10	<0.10	<0.04	<0.10	96.2	146	156
MW121	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	0.67	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	40.4	61.4	65.3
MW121	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	0.84	0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	48.2	71.7	77.9
MW121	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	0.33	0.06	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	49	57.6	59.8
MW121	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	0.41	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	49.5	58.9	63.3
MW121	03 May 2022	MGT	886234	<0.01	0.45	0.07	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	84	96.4	100.06
MW121	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	0.86	0.12	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	92.9	134	142
MW121	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	0.20	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.7	30.9	32.6
MW121	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.9	4.83	5.12
MW121	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	0.20	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.2	43.5	46.7
MW121	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.8	6.51	7.31
MW122D	04 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	0.007	0.007
MW122D	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW122D	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW122D	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW122D	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW122D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW122S	04 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.74	0.859	0.934
MW122S	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.66	0.72	0.72
MW122S	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.66	0.71	0.73
MW122S	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78	0.90	0.92
MW122S	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.18	0.18
MW122S	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.48	0.55	0.59
MW122S	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.54	0.59	0.61
MW122S	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.8	1.17	1.27
MW122S	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47	0.51	0.51
MW122S	19 Nov 2024	Eurofins Environment ANZ	1162531	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.65	0.7	0.75
MW200	17 Oct 2017	MGT	568720	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW200	17 Oct 2017	MGT	568720	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW200	17 Oct 2017	ALSE-Melbourne	EM1714538	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW200	17 Oct 2017	ALSE-Melbourne	EM1714538-1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW200	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW201	19 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW201	19 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW201	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	&						

Data source is Defence Esdat.

Location Code	Date	Lab Name	Lab Report Number															
MW202	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	01 Dec 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW202	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW202	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW203	19 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW203	19 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW203	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
MW204	17 Oct 2017	MGT	568720	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
MW204	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
MW204	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	05 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW204	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW204	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW204	14 Nov 2024	Eurofins Environment ANZ	1161464	-	<0.05	-	-	-	-	-	-	-	-	-	<0.01	-	-	
MW205	19 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW205	19 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW205	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
MW205	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	19 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW206	19 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW206	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
MW206	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	25 Nov 2020	MGT	760007	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW206	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW206	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW207	17 Oct 2017	MGT	568720	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	0.051	0.058	
MW207	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	0.053	0.056	
MW207	04 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.013	0.042	0.045	
MW207	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.06	0.06	
MW207	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
MW207	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01	
MW207	29 Jun 2021	MGT	807703	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
MW207	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	

Data source is Defence Esdat.

Location Code	Date	Lab Name	Lab Report Number														
MW207	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	01 Dec 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW207	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW207	07 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW207	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	19 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	19 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW208	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	05 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW208	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW208	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW209	19 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW209	19 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW209	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW209	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW209	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW210	20 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW210	20 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW210	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW210	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW210	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	18 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	25 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01

Table 8 Groundwater Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW210	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW210	14 Nov 2024	ENVIROLAB	MFK0303	<0.0010	0.0013	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	<0.00020	-	0.0013
MW210	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW210	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW211	20 Oct 2017	MGT	568935	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW211	20 Oct 2017	MGT	568935-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW211	07 Dec 2017	MGT	577093	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
MW212	03 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	58	62.73	65.467
MW212	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	47.7	52.54	55.761
MW212	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	33.9	37.6	39.9
MW212	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	57.6	62.6	66.6
MW212	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	37.7	40.9	43.4
MW212	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	46.2	49.3	51.7
MW212	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	37.7	40.4	42.6
MW212	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	41.3	43.6	46.7
MW212	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	37.3	40.0	42.0
MW212	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	40.6	42.6	44.4
MW212	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.5	36.6	38.3
MW212	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.6	52.2	54.4
MW212	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	25.6	26.91	27.92
MW213	03 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	9.1	16.83	19.015
MW213	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	10.03	17.93	20.328
MW213	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	14.3	21.5	23.5
MW213	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.6	27.0	29.6
MW213	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.4	15.7	17.1
MW213	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5	14.9	16.1
MW213	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.2	14.5	16.0
MW213	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.04	13.2	15.3
MW213	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.36	13.3	14.5
MW213	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.2	14.7	15.8
MW213	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.6	15.4	16.8
MW213	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.7	13.5	14.4
MW213	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	7.05	9.84	10.99
MW214D	03 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	5.8	6.531	6.931
MW214D	03 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	6.9	7.749	8.269
MW214D	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.1	14.0	15.0
MW214D	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12	14.0	15.2
MW214D	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.4	16.1	17.1
MW214D	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.8	17.7	18.6
MW214D	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5	16.5	17.4
MW214D	29 Jun 2021	MGT	807707	<0.01	0.13	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	20	21.97	23.6
MW214D	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.5	14.1	15.1
MW214D	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14	15.7	16.7
MW214D	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43	0.53	0.53
MW214D	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	0.39	0.39
MW214D	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.31	0.31
MW214D	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.28	0.28
MW214S	03 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	0.008	0.008
MW214S	03 Apr 2018	MGT	592478	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	0.01	0.01
MW214S	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.3	0.32
MW																	

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2020 Drinking Water												0.07		
PFAS NEMP 2020 Freshwater 99%														
PFAS NEMP 2020 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
MW215D	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.38	3.04	3.40
MW215D	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.41	3.01	3.40
MW215D	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.75	4.42	4.95
MW215D	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.82	3.59	4.06
MW215D	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.74	3.48	3.93
MW215D	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.82	3.63	4.10
MW215D	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.62	3.42	3.87
MW215D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.46	3.22	3.74
MW215S	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	17.6	21.92	24.4
MW215S	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	18.8	24.31	26.95
MW215S	04 Apr 2018	ALSE-Melbourne	EM1805793	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19	24.0	26.4
MW215S	04 Apr 2018	MGT	592478	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	20.4	25.97	28.94
MW215S	19 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	26.8	36.7	41.1
MW215S	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.8	33.3	37.4
MW215S	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.4	28.1	33.5
MW215S	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	33.6	43.8	48.5
MW215S	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	37.9	51.9	57.7
MW215S	30 Nov 2021	MGT	849156	<0.01	0.06	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	68	90.76	102.46
MW215S	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	71.2	94.6	106
MW215S	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	74.8	98.7	110
MW215S	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25	32.1	36.1
MW215S	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	0.06	<0.05	<0.05	<0.04	<0.09	<0.04	<0.09	<0.09	<0.04	<0.09	80.1	109	122
MW215S	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	78.9	108	118
MW215S	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	84.5	115	126
MW215S	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	108	147	166
MW215S	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	33	49.17	55.84
MW216	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.076	0.111	0.121
MW216	28 Mar 2018	MGT	591827	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.076	0.112	0.121
MW217D	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.023	0.028	0.029
MW217D	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.025	0.03	0.032
MW217D	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.047	0.061	0.064
MW217D	29 Mar 2018	ALSE-Melbourne	EM1805570	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
MW217D	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW217D	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW217D	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
MW217D	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW217D	02 Jul 2021	MGT	807707	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
MW217D	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW217D	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW217D	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW217D	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW217D	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
MW217D	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW217D	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
MW217D	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
MW217D	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
MW217D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW217D	15 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW217D	15 Nov 2024	ENVIROLAB	MFK0303	<0.0010	0.0063	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	0.028	-	0.056
MW217S	29 Mar 2018	MGT	591914	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005							

Table 8 Groundwater Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides								PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002	
PFAS NEMP 2020 Drinking Water												0.07			
PFAS NEMP 2020 Freshwater 99%															
PFAS NEMP 2020 Recreational Water												2			

Location Code	Date	Lab Name	Lab Report Number														
MW218	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	29 Jun 2021	MGT	807707	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW218	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	29 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW218	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW218	14 Nov 2024	Eurofins Environment ANZ	1161464	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
MW219	05 Dec 2017	MGT	576131	<0.001	0.023	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	11.2	27.063	28.968
MW219	05 Apr 2018	MGT	592843	<0.001	0.016	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	9.5	31.316	34.156
MW219	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	1.30	0.19	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.1	38.8	41.4
MW219	15 Nov 2019	MGT	689063	<0.01	1.1	0.15	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	16.5	33.68	42.12
MW219	15 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	1.37	0.19	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.4	40.0	42.5
MW219	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	1.19	0.10	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.4	36.5	39.3
MW219	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.4	30.5	32.5
MW222D	05 May 2021	MGT	792853	<0.01	0.12	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.12	0.12
MW222D	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW222S	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
MW222S	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
MW223D	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.17	0.41	0.52
MW223D	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW223D	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW223D	28 Jun 2021	ALSE-Melbourne	EM2112619	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
MW223S	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW223S	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.57	0.95	1.15
MW224D	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW224D	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW224S	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW224S	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW225D	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW225D	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW225S	05 May 2021	MGT	792853	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
MW225S	28 Jun 2021	MGT	807368	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1

Environmental Standards
HEPA, 2025, PFAS NEMP 3.0 Drinking Water
HEPA, 2025, PFAS NEMP 3.0 Freshwater 99%
HEPA, 2025, PFAS NEMP 3.0 Recreational Water

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW001	17 Aug 2017	MGT	559306	0.042	0.037	0.2	0.002	0.039	-	<0.001	0.009	0.012	0.082	0.014	0.018	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
SW001	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW001	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	0.09	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.1	<0.02	0.04	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	24 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	06 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	06 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW001	06 May 2024	Eurofins Environment ANZ	1096549	<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	<0.01	<0.01	<0.01	<0.01
SW001	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW002	17 Aug 2017	MGT	559306	0.002	<0.001	0.004	<0.001	0.007	-	<0.001	<0.005	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
SW002	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW002	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.07	<0.02	0.16	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	0.07	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.1	<0.02	0.21	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	24 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW002	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW003	17 Aug 2017	MGT	559306	0.002	0.001	0.013	<0.001	0.017	-	<0.001	0.014	0.052	0.033	0.015	0.005	0.002	<0.001	0.002	0.001	<0.001	0.001
SW003	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.12
SW003	21 May 2020	MGT	721332	<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	<0.01	<0.01	<0.01	<0.01
SW003	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	05 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	23 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW003	18 Nov 2024	ENVIROLAB	MFK0358	0.00041	<0.0010	0.0013	<0.0010	0.0019	-	<0.0020	<0.0020	<0.0020	<0.00040	<0.00040	<0.00020	<0.0010	<0.0020	<0.0020	<0.0050	<0.010	<0.050
SW003	18 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW003	18 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW004	17 Aug 2017	MGT	559306	0.024	0.03	0.25	0.007	0.17	-	<0.001	0.006	0.009	0.059	0.011	0.034	<0.001	<0.001				

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids											
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)		
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56							
PFAS NEMP 2025 Freshwater 99%					0.00023							19							
PFAS NEMP 2025 Recreational Water			2		2							10							

Location Code	Date	Lab Name	Lab Report Number																		
SW004	03 Feb 2022	MGT	860426	0.07	0.11	0.79	0.03	0.59	<0.01	<0.01	<0.05	0.02	0.1	0.03	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW004	04 May 2022	ALSE-Melbourne	EM2208151	0.05	0.06	0.57	0.04	0.67	-	<0.02	<0.1	<0.02	0.07	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW004	17 Nov 2022	ALSE-Melbourne	EM2223006	0.24	0.35	3.36	0.29	4.57	-	<0.02	<0.1	0.06	0.4	0.12	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW004	24 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.02	<0.02	0.26	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW004	05 Dec 2023	ALSE-Melbourne	EM2321752	0.04	0.06	0.49	0.02	0.39	-	<0.02	<0.1	<0.02	0.07	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW004	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW004	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	<0.01	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW004	18 Nov 2024	Eurofins Environment ANZ	1162570	0.10	0.16	1.1	0.07	2	<0.01	<0.01	<0.05	0.02	0.15	0.04	0.14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW005	18 Aug 2017	MGT	559306	<0.001	<0.001	0.004	<0.001	0.019	-	<0.001	<0.005	<0.001	0.003	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
SW005	18 Aug 2017	MGT	559306	<0.001	<0.001	0.004	<0.001	0.022	-	<0.001	0.007	0.004	0.003	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	0.001
SW005	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	0.1	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW005	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.03	<0.02	0.45	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	01 Dec 2021	ALSE-Melbourne	EM2124215	0.14	0.06	0.37	0.03	2.31	-	<0.02	<0.1	0.1	0.14	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	24 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.3	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.07	<0.02	0.1	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW005	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW006	17 Aug 2017	MGT	559306	0.012	0.016	0.18	0.005	0.36	-	<0.001	0.006	0.01	0.034	0.004	0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW006	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW006	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.02	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.05	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.01	0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW006	24 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW006	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW007	17 Aug 2017	MGT	559306	<0.001	<0.001	0.003	<0.001	0.01	-	<0.001	<0.005	<0.001	0.003	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
SW007	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW007	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW007	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW007	02 Jul 2021	MGT	807703	<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	<0.01	<0.01	<0.01	<0.01
SW007	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW007	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW007	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.02</															

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW009	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW009	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW009	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW009	18 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW010	17 Aug 2017	MGT	559306	0.002	0.001	0.009	<0.001	0.017	-	<0.001	<0.005	0.002	0.002	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW010	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	0.1	<0.02	0.33	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	21 May 2020	MGT	721332	<0.01	0.02	0.03	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW010	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.05	<0.02	0.07	-	<0.02	<0.1	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.05	<0.02	0.06	-	<0.02	<0.1	<0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	27 Nov 2020	ALSE-Melbourne	EM2021043	0.02	0.02	0.15	<0.02	0.54	-	<0.02	<0.1	0.03	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.07	<0.02	0.05	-	<0.02	<0.1	0.03	0.04	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.08	<0.02	0.04	-	<0.02	<0.1	0.03	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	02 Jul 2021	MGT	807707	0.01	0.01	0.08	<0.01	0.07	<0.01	<0.01	<0.05	0.04	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW010	01 Dec 2021	ALSE-Melbourne	EM2124215	0.02	0.02	0.17	<0.02	0.36	-	<0.02	<0.1	0.05	0.06	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.06	<0.02	0.08	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.07	<0.02	0.08	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.09	<0.02	0.26	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.06	<0.02	0.11	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW010	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.03	<0.01	0.07	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW011	17 Aug 2017	MGT	559306	0.001	0.001	0.01	<0.001	0.025	-	<0.001	<0.005	0.002	0.004	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW011	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	0.04	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW011	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW012	17 Aug 2017	MGT	559306	0.008	0.008	0.08	0.003	0.11	-	<0.001	0.01	0.008	0.016	0.003	0.006	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW013	17 Aug 2017	MGT	559306	0.002	0.002	0.027	0.001	0.095	-	<0.001	<0.005	0.004	0.009	0.003	0.005	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW014	21 Aug 2017	MGT	559967	0.58	0.53	2	0.05	0.96	-	<0.01	0.69	1	4.6	0.58	0.57	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW014	18 Nov 2019	ALSE-Melbourne	EM1919718	0.33	0.31	1.34	0.05	1.12	-	<0.02	0.3	0.49	2.52	0.28	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	19 May 2020	ALSE-Melbourne	EM2008583	0.91	0.74	2.3	0.09	2.29	-	<0.02	0.9	1.35	7.22	0.76	0.34	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	26 Nov 2020	ALSE-Melbourne	EM2021043	0.34	0.42	2.17	0.24	9.63	-	<0.02	0.4	0.52	2.23	0.46	0.66	0.07	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	30 Nov 2021	ALSE-Melbourne	EM2124215	0.49	0.43	2.61	0.14	4.36	-	<0.02	0.4	0.64	3.26	0.64	0.74	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	03 May 2022	ALSE-Melbourne	EM2208151	0.85	0.88	4.24	0.19	3.14	-	<0.02	0.8	1.17	6	1.07	1.27	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	16 Nov 2022	ALSE-Melbourne	EM2223006	0.34	0.35	1.95	0.13	4.89	-	<0.02	0.3	0.4	2.46	0.43	0.68	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	24 May 2023	Eurofins Environment ANZ	993983	0.38	0.55	2.1	0.15	2.8	<0.01	<0.01	0.29	0.61	2.3	0.56	0.94	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
SW014	24 May 2023	ALSE-Melbourne	EM2309600	0.31	0.31	2.12	0.1	2.83	-	<0.02	0.4	0.38	2.83	0.48	0.72	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	24 May 2023	ALSE-Melbourne	EM2309599	0.38	0.41	2.24	0.11	2.93	-	<0.02	0.2	0.53	2.56	0.48	0.75	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	05 Dec 2023	ALSE-Melbourne	EM2321752	0.40	0.38	2.5	0.16	7.56	-	<0.02	0.2	0.5	2.7	0.49	0.96	0.06	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	09 May 2024	ALSE-Melbourne	EM2407537	0.56	0.34	2.98	0.14	3.72	-	<0.02	0.5	0.61	2.97	0.74	1.06	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
SW014	19 Nov 2024	Eurofins Environment ANZ	1162570	0.51	0.50	3	0.1	3.8	0.03	<0.01	0.27	0.71	4.3	0.68	1.1	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
SW015	21 Aug 2017	MGT	559967	0.37	0.32	1.6	0.07	2.6	-	<0.01	0.36	0.5	2.4	0.28	0.45	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
SW015	18 Nov 2019	ALSE-Melbourne	EM1919718	1.04	1.24	9.88	0.71	36.9	-	<0.05	0.8	1.34	7.4	1.2	3.39	0.18	<0.05	<0.05	<0.05	<0.05	<0.12
SW015	19 May 2020	ALSE-Melbourne	EM2008583	0.49	0.54	3.19	0.23	9.62	-	<0.02	0.3	0.52	2.94	0.5	0.99	0.08	<0.02	<0.02	<0.02	<0.02	<0.05
SW015	26 Nov 2020	ALSE-Melbourne	EM2021043	0.18	0.21	1.36	0.09	3.6	-	<0.02	0.3	0.27	0.98	0.19	0.5	0.03	<0.02	<0.02	<0.02	<0.02	<0

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids												
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)			
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001			
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56								
PFAS NEMP 2025 Freshwater 99%					0.00023						19									
PFAS NEMP 2025 Recreational Water			2		2						10									

Location Code	Date	Lab Name	Lab Report Number																		
SW016	18 Nov 2019	ALSE-Melbourne	EM1919718	0.24	0.23	1.27	0.07	1.39	-	<0.02	0.2	0.29	1.32	0.18	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	19 May 2020	ALSE-Melbourne	EM2008583	0.72	0.74	4.04	0.23	5.21	-	<0.02	0.4	0.56	3.14	0.51	1.29	0.06	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	26 Nov 2020	ALSE-Melbourne	EM2021043	0.28	0.23	1.51	0.11	3.26	-	<0.02	0.2	0.22	1.02	0.22	0.67	0.05	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	30 Jun 2021	ALSE-Melbourne	EM2112638	0.35	0.21	2.27	0.12	2.74	-	<0.02	0.2	0.31	1.42	0.28	0.89	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	30 Nov 2021	ALSE-Melbourne	EM2124215	0.22	0.26	1.52	0.09	1.95	-	<0.02	<0.1	0.24	1.12	0.24	0.78	0.03	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	03 May 2022	ALSE-Melbourne	EM2208151	0.43	0.41	2.43	0.18	5.83	-	0.04	<0.1	0.4	1.92	0.39	1.26	0.10	0.02	<0.02	<0.02	<0.02	<0.05
SW016	15 Nov 2022	Eurofins Environment ANZ	943130	0.08	0.11	0.74	0.05	1.8	<0.01	<0.01	0.1	0.12	0.42	0.09	0.29	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
SW016	16 Nov 2022	ALSE-Melbourne	EM2223006	0.11	0.10	0.69	0.04	1.71	-	<0.02	<0.1	0.1	0.42	0.08	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	16 Nov 2022	ALSE-Melbourne	EM2223006	0.12	0.11	0.7	0.04	1.92	-	<0.02	<0.1	0.1	0.48	0.1	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	24 May 2023	ALSE-Melbourne	EM2309599	0.20	0.19	1.3	0.09	2.5	-	<0.02	<0.1	0.16	0.75	0.17	0.62	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	24 May 2023	ALSE-Melbourne	EM2309600	0.16	0.18	1.34	0.1	2.76	-	<0.02	0.1	0.14	0.76	0.17	0.62	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	24 May 2023	Eurofins Environment ANZ	993983	0.19	0.27	1.4	0.13	3.1	<0.01	<0.01	0.25	0.17	0.84	0.19	0.85	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
SW016	05 Dec 2023	ALSE-Melbourne	EM2321752	0.19	0.19	1.41	0.15	3.28	-	<0.02	<0.1	0.13	0.76	0.21	0.75	0.06	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	09 May 2024	ALSE-Melbourne	EM2407537	0.28	0.20	1.74	0.11	2.71	-	<0.02	0.2	0.2	0.91	0.24	0.85	0.05	<0.02	<0.02	<0.02	<0.02	<0.05
SW016	19 Nov 2024	Eurofins Environment ANZ	1162570	0.23	0.23	1.5	0.18	2	0.02	<0.01	0.07	0.15	1.1	0.2	0.77	0.06	<0.01	<0.01	<0.01	<0.01	<0.01
SW016	19 Nov 2024	Eurofins Environment ANZ	1162570	0.25	0.28	2	0.18	2.7	0.03	<0.01	0.09	0.28	1.3	0.28	1.1	0.06	0.01	<0.01	<0.01	<0.01	<0.01
SW016	19 Nov 2024	ENVIROLAB	MFK0358	0.32	0.33	2.1	0.18	3.7	-	<0.0020	0.24	0.28	1.2	0.28	1.1	0.055	0.0074	<0.020	<0.0050	<0.050	<0.25
SW017	21 Aug 2017	MGT	559967	<0.01	<0.01	0.02	<0.01	0.04	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW017	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	0.49	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	
SW017	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.03	<0.02	0.05	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	26 Nov 2020	ALSE-Melbourne	EM2021043	0.06	0.05	0.23	<0.02	0.28	-	<0.02	<0.1	0.06	0.25	0.05	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.07	<0.02	0.05	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	30 Nov 2021	ALSE-Melbourne	EM2124215	0.02	<0.02	0.07	<0.02	0.13	-	<0.02	<0.1	<0.02	0.07	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.02	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	16 Nov 2022	ALSE-Melbourne	EM2223006	0.03	<0.02	0.05	<0.02	0.07	-	<0.02	<0.1	<0.02	0.06	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	24 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.03	<0.02	0.08	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	24 May 2023	Eurofins Environment ANZ	993983	0.01	<0.01	0.03	<0.01	0.07	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW017	24 May 2023	ALSE-Melbourne	EM2309599	<0.02	<0.02	0.04	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.05	<0.02	0.06	-	<0.02	<0.1	<0.02	0.04	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.06	<0.02	0.06	-	<0.02	<0.1	<0.02	0.06	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW017	19 Nov 2024	Eurofins Environment ANZ	1162570	0.02	0.01	0.04	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW018	21 Aug 2017	MGT	559967	0.06	0.03	0.22	0.01	0.57	-	<0.01	<0.05	0.02	0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW018	18 Nov 2019	ALSE-Melbourne	EM1919718	0.32	0.26	1.34	0.02	0.16	-	<0.02	<0.1	0.06	0.38	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	21 May 2020	ALSE-Melbourne	EM2008583	1.09	0.96	3.11	0.03	0.18	-	<0.02	<0.1	0.16	1.32	0.2	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	05 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	16 Nov 2022	ALSE-Melbourne	EM2223006	0.11	0.09	0.6	<0.02	0.17	-	<0.02	<0.1	0.02	0.11	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.07	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW018	18 Nov 2024	Eurofins Environment ANZ	1162570	<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					

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW019	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.03	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW019	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW020	21 Aug 2017		MGT	559967	<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	<0.01	<0.01	<0.01
SW020	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW020	21 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	15 Nov 2022	Eurofins Environment ANZ	943130	<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	<0.01	<0.01	<0.01	<0.01
SW020	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW020	18 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW021	24 Aug 2017	ALSE-Melbourne	EM1711508	<0.02	<0.02	0.08	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	24 Aug 2017	ALSE-Melbourne	EM1711508-1	<0.02	<0.02	0.08	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	24 Aug 2017	MGT	560227	<0.01	<0.01	0.08	<0.01	0.05	-	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	24 Aug 2017	MGT	560227	<0.01	<0.01	0.08	<0.01	0.05	-	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	0.06	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	0.04	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.12	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	03 Nov 2021	MGT	838904	<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.55	0.04	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	03 Nov 2021	MGT	838904	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	04 Nov 2021	MGT	838904	<0.01	<0.01	0.05	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	04 Nov 2021	MGT	838904	<0.01	<0.01	0.05	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	05 Nov 2021	MGT	838904	<0.01	<0.01	0.06	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	27 Jan 2022	MGT	860426	<0.01	<0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	27 Jan 2022	MGT	860426	<0.01	<0.01	0.02	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	27 Jan 2022	MGT	860426	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.07	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	28 Jan 2022	MGT	860426	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW021	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	23 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.12	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.1	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW021	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	0.03	<0.02	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW022	24 Aug 2017	MGT	560227	<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	<0.01	<0.01	<0.01	<0.01
SW022	19 Nov 2019	MGT	689174	<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	<0.01	<0.01	<0.01	<0.01
SW022	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW022	19 Nov 2019	ALSE-Melbourne	EM1919718																		

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW023	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	03 Nov 2021	MGT	838904	<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	<0.01	<0.01	<0.01	<0.01
SW023	03 Nov 2021	MGT	838904	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.65	0.06	0.03	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW023	04 Nov 2021	MGT	838904	<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	<0.01	<0.01	<0.01	<0.01
SW023	04 Nov 2021	MGT	838904	<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	<0.01	<0.01	<0.01	<0.01
SW023	05 Nov 2021	MGT	838904	<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	<0.01	<0.01	<0.01	<0.01
SW023	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	30 Nov 2021	MGT	849156	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW023	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	03 May 2022	MGT	886234	<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	<0.01	<0.01	<0.01	<0.01
SW023	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	25 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	<0.01	<0.02	<0.01	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW023	19 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW024	24 Aug 2017	MGT	560227	<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	<0.01	<0.01	<0.01	<0.01
SW024	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	19 May 2020	ALSE-Melbourne	EM2008583	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.02	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	30 Nov 2021	MGT	849156	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW024	03 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	25 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW024	19 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW025	24 Aug 2017	MGT	560227	<0.01	<0.01	<0.01	<0.01	0.02	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW026	24 Aug 2017	MGT	560227	<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	<0.01	<0.01	<0.01	<0.01
SW027	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.02	<0.02	0.05	<0.02	0.19	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	28 Aug 2017	MGT	560833	<0.01	<0.01	0.06	<0.01	0.28	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW027	28 Aug 2017	MGT	560833	<0.01	<0.01	0.07	<0.01	0.3	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0		

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids												
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)			
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56								
PFAS NEMP 2025 Freshwater 99%					0.00023							19								
PFAS NEMP 2025 Recreational Water			2		2							10								

Location Code	Date	Lab Name	Lab Report Number																		
SW027	28 Jan 2022	MGT	860426	<0.01	<0.01	0.06	<0.01	0.19	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW027	28 Jan 2022	MGT	860426	<0.01	<0.01	0.06	<0.01	0.18	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW027	31 Jan 2022	MGT	860426	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW027	03 Feb 2022	MGT	860426	<0.01	<0.01	0.04	<0.01	0.09	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW027	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	0.15	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.11	<0.02	0.17	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.03	<0.02	0.13	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.02	<0.02	0.06	<0.02	0.06	-	<0.02	<0.1	<0.02	0.07	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.02	<0.02	0.06	<0.02	0.06	-	<0.02	<0.1	<0.02	0.08	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	<0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	0.08	<0.02	0.13	<0.02	<0.02	<0.1	0.03	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	07 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.04	<0.02	0.1	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW027	18 Nov 2024	Eurofins Environment ANZ	1162570	0.02	0.02	0.21	0.01	0.21	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW028	28 Aug 2017	MGT	560833	<0.01	<0.01	0.06	<0.01	0.32	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW028	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	0.08	<0.05	0.21	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12
SW028	19 May 2020	ALSE-Melbourne	EM2008583	0.02	0.05	0.42	0.03	1.09	-	<0.02	<0.1	<0.02	0.06	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.06	<0.02	0.2	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.07	<0.02	0.21	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	26 Nov 2020	MGT	760007	<0.01	<0.01	0.07	<0.01	0.37	<0.01	<0.01	<0.05	0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW028	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.12	<0.02	0.17	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	01 Jul 2021	MGT	807707	<0.01	<0.01	0.12	<0.01	0.32	<0.01	<0.01	<0.05	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW028	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.12	<0.02	0.19	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.03	<0.02	0.1	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	30 Nov 2021	MGT	849156	<0.01	<0.01	0.03	<0.01	0.08	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW028	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.03	<0.02	0.13	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	26 May 2023	ALSE-Melbourne	EM2309600	0.02	0.02	0.33	<0.02	0.73	-	<0.02	<0.1	<0.02	0.03	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.04	<0.02	0.33	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW028	18 Nov 2024	Eurofins Environment ANZ	1162570	0.01	0.02	0.15	<0.01	0.21	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW029	28 Aug 2017	MGT	560833	<0.01	<0.01	0.08	<0.01	0.19	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW029	19 Nov 2019	ALSE-Melbourne	EM1919718	0.10	0.06	0.42	0.04	2.52	-	<0.02	0.2	0.4	0.65	0.12	0.13	0.06	<0.02	<0.02	<0.02	<0.02	<0.05
SW029	19 May 2020	ALSE-Melbourne	EM2008583	0.27	0.30	1.37	0.21	18.2	-	0.25	0.3	0.97	1.91	0.37	0.34	0.12	0.03	0.10	<0.02	<0.02	<0.05
SW029	26 Nov 2020	ALSE-Melbourne	EM2021043	0.09	0.04	0.6	0.06	3.15	-	0.05	<0.1	0.44	0.62	0.13	0.17	0.06	<0.02	0.06	<0.02	0.03	<0.05
SW029	01 Jul 2021	ALSE-Melbourne	EM2112638	0.02	<0.02	0.04	<0.02	0.07	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW029	03 Nov 2021	MGT	838904	<0.01	<0.01	0.03	<0.01	0.13	<0.01	<0.01	0.21	0.05	0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW029	03 Nov 2021	MGT	838904	<0.01	<0.01	<0.01	<0.01.														

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW029	04 Dec 2023	ALSE-Melbourne	EM2321752	0.03	<0.02	0.12	<0.02	0.32	-	<0.02	<0.1	0.13	0.1	0.05	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW029	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.14	<0.02	0.28	-	<0.02	<0.1	0.12	0.09	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW029	02 Apr 2024	ALSE-Melbourne	EM2405138	0.02	<0.02	0.15	<0.02	0.32	<0.02	<0.02	<0.1	0.21	0.18	0.05	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW029	10 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.05	<0.02	0.16	-	<0.02	<0.1	0.05	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW029	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.01	<0.01	0.04	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW030	28 Aug 2017	MGT	560833	<0.01	<0.01	0.04	<0.01	0.04	-	<0.01	<0.05	0.08	0.06	0.04	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW030	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.02	<0.02	<0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	19 May 2020	ALSE-Melbourne	EM2008583	0.02	0.03	0.14	<0.02	0.2	-	<0.02	<0.1	<0.02	0.07	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.03	<0.02	0.13	-	<0.02	<0.1	0.03	0.03	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	02 Jul 2021	ALSE-Melbourne	EM2112638	0.03	<0.02	0.12	<0.02	0.72	-	0.02	<0.1	0.17	0.15	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.04	<0.02	0.12	-	<0.02	<0.1	0.05	0.04	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.07	<0.02	0.17	-	<0.02	<0.1	0.03	0.05	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	29 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.02	<0.02	0.11	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	10 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.06	<0.02	0.21	-	<0.02	<0.1	0.07	0.06	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW030	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.02	<0.01	0.07	<0.01	<0.01	<0.05	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW031	28 Aug 2017	ALSE-Melbourne	EM1711671	0.17	0.18	2.07	0.25	13.4	-	0.06	0.3	0.48	2.03	0.18	0.41	0.05	0.04	<0.02	<0.02	<0.02	<0.05
SW031	28 Aug 2017	MGT	560833	0.23	0.29	2.9	0.4	27	-	0.05	0.53	0.61	3	0.24	0.49	0.06	0.05	0.01	<0.01	<0.01	<0.01
SW031	28 Aug 2017	MGT	560833	0.19	0.25	3.3	0.25	31	-	0.07	0.48	0.58	2.9	0.23	0.48	0.06	0.05	<0.01	<0.01	<0.01	<0.01
SW031	19 Nov 2019	ALSE-Melbourne	EM1919718	0.10	0.11	1.4	0.16	14.6	-	0.05	0.2	0.32	1.84	0.09	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW031	20 May 2020	ALSE-Melbourne	EM2008583	0.41	0.45	4.93	0.51	30.8	-	0.16	0.2	0.55	2.11	0.3	0.46	0.05	0.02	<0.02	<0.02	<0.02	<0.05
SW031	25 Nov 2020	ALSE-Melbourne	EM2021043	0.33	0.17	2.65	0.46	25	-	0.02	<0.1	0.49	3.67	0.2	0.49	0.05	0.04	<0.02	<0.02	<0.02	<0.05
SW032	28 Aug 2017	MGT	560833	<0.01	<0.01	0.07	<0.01	0.33	-	<0.01	<0.05	0.02	0.06	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW032	20 May 2020	ALSE-Melbourne	EM2008583	0.07	0.03	0.32	0.03	1.04	-	<0.02	<0.1	0.14	0.47	0.07	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW033	28 Aug 2017	MGT	560833	0.18	0.22	2.9	0.25	23	-	0.06	0.42	0.53	2.6	0.21	0.43	0.05	0.05	<0.01	0.01	<0.01	0.01
SW034	28 Aug 2017	MGT	560833	<0.01	<0.01	<0.01	<0.01	0.02	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW034	28 Aug 2017	MGT	560833	<0.01	<0.01	<0.01	<0.01	0.04	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW034	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW034	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	0.09	<0.05	0.17	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.12	
SW035	28 Aug 2017	MGT	560833	<0.01	<0.01	<0.01	<0.01	0.1	-	<0.01	<0.05	0.03	0.03	<0.01	0.03	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
SW035	28 Aug 2017	MGT	560833	<0.01	<0.01	<0.01	<0.01	0.09	-	<0.01	<0.05	0.03	0.02	<0.01	0.02	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
SW035	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.02	<0.02	<0.02	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.05
SW036	18 Dec 2017	MGT	578436	<0.001	<0.001	0.002	<0.001	0.0088	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW036	18 Dec 2017	ALSE-Melbourne	EM1717589	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	
SW037	18 Dec 2017	MGT	578436	<0.001	<0.001	0.001	<0.001	0.0068	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW038	18 Dec 2017	MGT	578436	<0.001	<0.001	0.001	<0.001	0.005	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW039	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0027	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW040	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.002	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW041	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0015	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW042	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0016	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW043	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0014	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW044	18 Dec 2017	MGT	578436	<0.001	<0.001	0.002	<0.001	0.0089	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW044	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.003	-	<0.001											

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW054	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0027	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW054	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0014	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW055	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0013	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW055	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0014	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW055	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0014	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW055	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	0.0015	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW056	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	<0.0001	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW056	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	<0.0001	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW056	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	<0.0001	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW056	18 Dec 2017	MGT	578436	<0.001	<0.001	<0.001	<0.001	<0.0001	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW057	16 Mar 2018	MGT	589770	0.82	1	5.1	0.28	5.4	-	<0.001	1.1	1.1	6.2	1.2	1.3	0.031	0.005	<0.001	<0.001	<0.001	0.001
SW057	18 Nov 2019	ALSE-Melbourne	EM1919718	2.00	1.81	9.16	0.37	12.1	-	<0.05	2.3	3.34	17.5	2.02	2.96	0.06	<0.05	<0.05	<0.05	<0.05	<0.12
SW057	19 May 2020	ALSE-Melbourne	EM2008583	0.73	0.70	3.28	0.16	3.01	-	<0.02	0.7	1.09	6.3	0.74	0.85	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	26 Nov 2020	ALSE-Melbourne	EM2021043	0.34	0.27	1.82	0.09	2.09	-	<0.02	0.4	0.47	2.44	0.42	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	26 Nov 2020	ALSE-Melbourne	EM2021043	0.33	0.32	1.9	0.08	2.11	-	<0.02	0.4	0.45	2.36	0.38	0.51	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	26 Nov 2020	MGT	760007	0.33	0.38	2.5	0.14	2.5	<0.01	<0.01	0.38	0.5	2.9	0.45	0.64	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
SW057	30 Jun 2021	ALSE-Melbourne	EM2112638	0.45	0.47	2.48	0.12	2.74	-	<0.02	0.6	0.76	3.53	0.65	0.69	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	30 Nov 2021	ALSE-Melbourne	EM2124215	0.43	0.48	2.61	0.14	3.75	-	<0.02	0.3	0.61	3.18	0.62	0.76	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	03 May 2022	ALSE-Melbourne	EM2208151	0.74	0.60	4.4	0.42	15.7	-	<0.03	0.4	1.01	4.85	1.01	1.83	0.13	<0.03	<0.03	<0.03	<0.03	<0.08
SW057	16 Nov 2022	ALSE-Melbourne	EM2223006	0.37	0.35	2.12	0.11	3.32	-	<0.02	0.2	0.44	2.21	0.41	0.62	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	24 May 2023	ALSE-Melbourne	EM2309600	0.29	0.36	2.72	0.15	4.64	-	<0.02	0.4	0.4	2.98	0.38	0.82	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	05 Dec 2023	Eurofins Environment ANZ	1051767	0.32	0.52	3	0.19	3.9	<0.01	<0.01	0.29	0.47	3.5	0.39	0.87	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
SW057	06 Dec 2023	ALSE-Melbourne	EM2321752	0.39	0.39	2.33	0.14	2.9	-	<0.02	0.2	0.42	2.32	0.55	0.79	0.04	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	06 Dec 2023	ALSE-Melbourne	EM2321752	0.33	0.43	2.36	0.14	2.82	-	<0.02	0.2	0.43	1.88	0.47	0.76	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	09 May 2024	ALSE-Melbourne	EM2407537	0.50	0.53	3.09	0.15	3.65	-	<0.02	0.4	0.69	3.67	0.74	1.03	0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW057	19 Nov 2024	Eurofins Environment ANZ	1162570	0.57	0.51	3.1	0.11	2.7	0.02	<0.01	0.28	0.73	4.7	0.7	1.1	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
SW057	19 Nov 2024	Eurofins Environment ANZ	1162570	0.57	0.55	3.3	0.22	3	0.02	<0.01	0.32	0.96	4.4	0.77	1.3	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
SW057	19 Nov 2024	ENVIROLAB	MFK0358	0.75	0.73	3.9	0.2	4.2	-	<0.020	0.76	0.97	4.9	0.86	1.4	0.044	<0.020	<0.020	<0.050	<0.10	<0.50
SW058	04 Apr 2018	MGT	592478	0.39	0.46	3.9	0.45	33	-	0.078	1	1.2	6.8	0.38	0.78	0.08	0.066	0.008	<0.01	<0.01	<0.01
SW058	19 Nov 2019	MGT	689174	0.12	0.15	1.6	0.14	26	0.19	0.01	0.21	0.35	2	0.12	0.27	0.03	0.02	<0.01	<0.01	<0.01	<0.01
SW058	19 Nov 2019	ALSE-Melbourne	EM1919718	0.17	0.20	2.19	0.25	22.8	-	0.06	0.3	0.5	3.03	0.16	0.42	0.04	0.02	<0.02	<0.02	<0.02	<0.05
SW058	19 Nov 2019	ALSE-Melbourne	EM1919718	0.18	0.20	2.3	0.25	21.6	-	0.07	0.3	0.53	3.1	0.16	0.44	0.03	0.03	<0.02	<0.02	<0.02	<0.05
SW058	20 May 2020	ALSE-Melbourne	EM2008583	0.29	0.28	3.44	0.35	28.1	-	0.15	0.3	0.65	4.28	0.25	0.43	0.05	0.04	<0.02	<0.02	<0.02	<0.05
SW058	25 Nov 2020	ALSE-Melbourne	EM2021043	0.23	0.13	2.35	0.25	16.4	-	<0.02	<0.1	0.4	2.85	0.17	0.4	0.04	0.04	<0.02	<0.02	<0.02	<0.05
SW059	07 May 2018	MGT	598200	<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	<0.001	<0.001	<0.001	<0.001
SW060	07 May 2018	MGT	598200	<0.001	<0.001	<0.001	<0.001	0.002	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW061	07 May 2018	MGT	598200	<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	<0.001	<0.001	<0.001	<0.001
SW062	07 May 2018	MGT	598200	<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	<0.001	<0.001	<0.001	<0.001
SW063	07 May 2018	MGT	598200	<0.001	<0.001	<0.001	<0.001	0.003	-	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW064	07 May 2018	MGT	598200	<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	<0.001	<0.001	<0.001	<0.001
SW064	07 May 2018	MGT	598200	<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	<0.001	<0.001	<0.001	<0.001
SW064	07 May 2018	MGT	598200	<0.001	<0.001	<0.001															

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																		
SW071	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW071	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW071	23 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW071	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW071	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW071	18 Nov 2024	ENVIROLAB	MFK0358	<0.00040	<0.0010	0.0017	<0.0010	0.0022	-	<0.0020	<0.0020	<0.0020	<0.00040	<0.00040	<0.00020	<0.0010	<0.0020	<0.0020	<0.0050	<0.020	<0.10
SW071	18 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW071	18 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW072	21 May 2020	ALSE-Melbourne	EM2008583	0.05	0.16	1.82	0.13	2.83	-	<0.02	<0.1	0.16	0.36	0.08	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW072	18 Nov 2022	ALSE-Melbourne	EM2223006	0.03	0.06	1.06	0.07	1.77	-	<0.02	<0.1	0.1	0.18	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW072	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.03	<0.02	0.12	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW072	10 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.05	<0.02	0.2	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.03	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.06	<0.02	0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.09	<0.02	0.21	-	<0.02	<0.1	<0.02	<0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	28 Jan 2022	MGT	860426	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW073	03 May 2022	MGT	886234	0.24	0.17	0.84	0.02	0.48	<0.01	<0.01	0.08	0.11	0.41	0.04	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW073	04 May 2022	ALSE-Melbourne	EM2208151	0.23	0.13	0.7	0.02	0.38	-	<0.02	<0.1	0.1	0.36	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	04 May 2022	ALSE-Melbourne	EM2208151	0.22	0.17	0.78	0.02	0.42	-	<0.02	<0.1	0.1	0.36	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.09	<0.02	0.12	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	25 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.07	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.04	<0.02	0.09	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW073	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.04	<0.01	0.08	<0.01	<0.01	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW074	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.21	<0.02	0.06	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	02 Jul 2021	ALSE-Melbourne	EM2112638	0.05	<0.02	0.18	<0.02	0.06	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	01 Dec 2021	ALSE-Melbourne	EM2124215	0.05	0.06	0.51	<0.02	0.1	-	<0.02	<0.1	0.04	0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.13	<0.02	0.07	-	<0.02	<0.1	<0.02	0.02	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.09	<0.02	0.05	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	25 May 2023	ALSE-Melbourne	EM2309600	<0.02	0.02	0.23	<0.02	0.06	-	<0.02	<0.1	0.02	0.05	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.09	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	08 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.1	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW074	19 Nov 2024	Eurofins Environment ANZ	1162570	<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	<0.01	<0.01	<0.01	<0.01
SW075	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW075	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.02	<0.02	0.03	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW075	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.02	<0.02	0.03	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW075	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.03	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW075	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW075	26 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.01	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW075	05 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.01	0.02	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW075	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.03	<0.02	0.06	-	<0.02	<0.1	<0.02	<0.02	<0.02							

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids												
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)			
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001			
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56								
PFAS NEMP 2025 Freshwater 99%					0.00023							19								
PFAS NEMP 2025 Recreational Water			2		2							10								

Location Code	Date	Lab Name	Lab Report Number																		
SW077	03 Nov 2021	MGT	838904	0.02	0.01	0.07	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	03 Nov 2021	MGT	838904	0.02	0.01	0.07	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	04 Nov 2021	MGT	838904	0.03	0.02	0.1	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	04 Nov 2021	MGT	838904	0.06	0.04	0.18	<0.01	0.04	<0.01	<0.01	<0.05	0.02	0.07	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	05 Nov 2021	MGT	838904	0.25	0.19	0.77	0.01	0.09	<0.01	<0.01	<0.05	0.05	0.27	0.04	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	01 Dec 2021	ALSE-Melbourne	EM2124215	0.71	0.65	2.32	0.03	0.13	-	<0.02	<0.1	0.15	0.88	0.15	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	27 Jan 2022	MGT	860426	0.01	0.01	0.08	<0.01	0.05	<0.01	<0.01	0.05	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	28 Jan 2022	MGT	860426	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	31 Jan 2022	MGT	860426	0.03	0.02	0.11	<0.01	0.05	<0.01	<0.01	0.06	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	03 Feb 2022	MGT	860426	0.05	0.04	0.21	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW077	04 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	16 Nov 2022	ALSE-Melbourne	EM2223006	0.12	0.09	0.62	<0.02	0.22	-	<0.02	<0.1	0.02	0.11	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	25 May 2023	ALSE-Melbourne	EM2309600	0.03	0.02	0.16	<0.02	0.05	-	<0.02	<0.1	<0.02	0.05	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	04 Dec 2023	ALSE-Melbourne	EM2321752	0.02	<0.02	0.08	<0.02	0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.02	<0.02	<0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.01	<0.02	0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW077	18 Nov 2024	Eurofins Environment ANZ	1162570	0.02	0.01	0.06	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW078	26 Nov 2020	ALSE-Melbourne	EM2021043	0.02	<0.02	0.07	<0.02	0.08	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	02 Jul 2021	ALSE-Melbourne	EM2112638	0.02	0.02	0.12	<0.02	0.06	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	02 Jul 2021	ALSE-Melbourne	EM2112638	0.02	<0.02	0.12	<0.02	0.05	-	<0.02	<0.1	<0.02	0.03	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	02 Jul 2021	MGT	807703	0.02	0.02	0.12	<0.01	0.08	<0.01	<0.01	<0.05	0.02	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW078	02 Dec 2021	ALSE-Melbourne	EM2124215	0.05	0.04	0.26	<0.02	0.14	-	<0.02	<0.1	0.02	0.06	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	05 May 2022	ALSE-Melbourne	EM2208151	<0.02	<0.02	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.01	0.04	<0.01	0.05	<0.01	<0.01	<0.05	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW078	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.02	<0.02	0.04	<0.02	0.04	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	23 May 2023	ALSE-Melbourne	EM2309600	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.02	<0.02	0.02	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.01	0.04	0.05	0.53	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW078	09 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.04	<0.02	0.03	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW078	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW079	03 Nov 2021	MGT	838904	0.02	0.01	0.04	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW079	04 Nov 2021	ALSE-Melbourne	EM2122285	<0.02	<0.02	0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW079	04 Nov 2021	MGT	838904	<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	<0.01	<0.01	<0.01	<0.01
SW079	04 Nov 2021	MGT	838904	<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	<0.01	<0.01	<0.01	<0.01
SW079	04 Nov 2021	MGT	838904	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW079	05 Nov 2021	MGT	838904	0.02	<0.01	0.05	<0.01	0.07	<0.01	<0.01	0.06	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW079	27 Jan 2022	MGT	860426	<0.01	<0.01	0.01	<0.01	0.05	<0.01	<0.01	0.06	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW079	27 Jan 2022	ALSE-Melbourne	EM2201813	<0.02	<0.02	0.02	<0.02	0.04	-	<0.02	<0.10	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW079	27 Jan 2022	MGT	860426	<0.01	<0.01	0.02	<0.01	0.08	<0.01	<0.01	0.06	0.01	0.03	<0.01.							

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - Perfluoroalkyl Sulfonic Acids							PFAS - Perfluoroalkyl Carboxylic Acids										
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.0004	0.001	0.0002	0.001	0.0001	0.01	0.001	0.002	0.001	0.0004	0.0004	0.0002	0.001	0.001	0.001	0.001	0.001	0.001
PFAS NEMP 2025 Drinking Water			0.07		0.07							0.56						
PFAS NEMP 2025 Freshwater 99%					0.00023							19						
PFAS NEMP 2025 Recreational Water			2		2							10						

Location Code	Date	Lab Name	Lab Report Number																	
SW080	03 Feb 2022	MGT	860426	<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	<0.01	<0.01	<0.01
SW080	03 Feb 2022	MGT	860426	<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	<0.01	<0.01	<0.01
SW080	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.02	<0.02	<0.01	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW080	20 Mar 2024	Eurofins Environment ANZ	1081960	<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	<0.01	<0.01	<0.01
SW080	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	<0.01	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW080	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.02	<0.02	<0.01	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW080	02 Apr 2024	Eurofins Environment ANZ	1084386	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW081	21 May 2021	MGT	798556	<0.01	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW081	21 May 2021	MGT	798556	<0.01	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW081	21 May 2021	ALSE-Melbourne	EM2110097	<0.02	<0.02	<0.02	<0.02	0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW082	21 May 2021	MGT	798556	<0.01	<0.01	0.1	<0.01	0.14	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW085	21 May 2021	MGT	798556	<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	<0.01	<0.01	<0.01
SW086	21 May 2021	MGT	798556	0.02	0.02	0.19	<0.01	0.03	<0.01	<0.01	<0.05	0.01	0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
SW087	03 Nov 2021	MGT	838904	<0.01	<0.01	0.04	<0.01	0.02	<0.01	<0.01	1.4	0.15	0.05	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW087	27 Jan 2022	MGT	860426	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.34	0.11	0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW090	06 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.01	0.04	<0.01	0.05	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW090	06 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.07	<0.02	0.08	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW090	06 May 2024	ALSE-Melbourne	EM2407537	<0.02	<0.02	0.08	<0.02	0.08	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05
SW090	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.01	0.02	<0.01	0.06	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Environmental Standards
HEPA, January 2025, PFAS NEMP 3.0 Drinking Water
HEPA, January 2025, PFAS NEMP 3.0 Freshwater 99%
HEPA, January 2025, PFAS NEMP 3.0 Recreational Water

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW001	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.239	0.416	0.456
SW001	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW001	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
SW001	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW001	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW001	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW001	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW001	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.16	0.16
SW001	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW001	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW001	06 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW001	06 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW001	06 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW001	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW002	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.011	0.016	0.017
SW002	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW002	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23	0.23	0.23
SW002	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW002	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW002	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW002	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW002	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.31	0.31
SW002	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	<0.02	<0.02
SW002	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW003	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.03	0.151	0.158
SW003	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	0.06
SW003	21 May 2020	MGT	721332	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW003	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	23 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02
SW003	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW003	18 Nov 2024	ENVIROLAB	MFK0358	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	0.0032	-	0.0036
SW003	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW003	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW004	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.42	0.563	0.603
SW004	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	3.5	5.16	5.71
SW004	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.9	33.1	36.4
SW004	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.11	0.11
SW004	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.15	0.15
SW004	26 Nov 2020	MGT	760007	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.14	0.14
SW004	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.4	0.52	0.55
SW004	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	21.4	31	34.25
SW004	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	17.3	25.79	28.65
SW004	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	31	39.93	43.57
SW004	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	35	43.52	47.48
SW004	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.9	24.9	28.1
SW004	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.97	2.47	2.69
SW004	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.73	2.17	2.38
SW004	31 Jan 2022	ALSE-Melbourne	EM2201813	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.17	1.38	1.44
SW004	31 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.57	1.87	2
SW004	31 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.64	1.96	2.1

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW004	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.38	1.7	1.85
SW004	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.24	1.46	1.56
SW004	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.93	9.28	9.92
SW004	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.28	0.28
SW004	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.88	1.05	1.13
SW004	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW004	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.03	0.03
SW004	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.1	3.55	3.8
SW005	18 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.023	0.029	0.03
SW005	18 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.026	0.043	0.045
SW005	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.1	0.10	0.10
SW005	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.48	0.48	0.48
SW005	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW005	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW005	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.68	3.14	3.23
SW005	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW005	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW005	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW005	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.34	0.34
SW005	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.17	0.17
SW005	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
SW006	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.54	0.615	0.636
SW006	20 Nov 2019	ALSE-Melbourne	EM1919885	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW006	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW006	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW006	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW006	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW006	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW006	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.11	0.11
SW006	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW006	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
SW006	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02
SW006	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	0.03	<0.05	0.12
SW007	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.013	0.02	0.021
SW007	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW007	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	02 Jul 2021	MGT	807703	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW007	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW007	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02
SW007	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW007	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW008	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.017	0.022	0.023
SW008	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW008	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.19	0.19
SW009	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.018	0.023	0.023
SW009	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.95	0.95	0.95
SW009	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW009	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW009	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02
SW009	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW009	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW010	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.026	0.035	0.036
SW010	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43	0.43	0.43
SW010	21 May 2020	MGT	721332	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.1	0.12
SW010	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.16	0.16
SW010	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.14	0.14
SW010	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.69	0.80	0.82
SW010	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.19	0.19
SW010	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.18	0.18
SW010	02 Jul 2021	MGT	807707	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.23	0.24
SW010	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.53	0.67	0.69
SW010	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.17	0.17
SW010	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.17	0.17
SW010	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW010	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	0.38	0.38
SW010	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.21	0.21
SW010	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.11	0.11
SW011	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.035	0.045	0.046
SW011	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW011	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW012	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.19	0.241	0.253
SW013	17 Aug 2017	MGT	559306	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.122	0.145	0.149
SW014	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.96	10.98	11.57
SW014	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.46	6.70	7.06
SW014	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.59	16.1	16.9
SW014	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.8	16.4	17.1
SW014	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.97	13.1	13.7
SW014	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.38	18.5	19.6
SW014	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.84	11.4	12.0
SW014	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	4.9	9.98	10.83
SW014	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.95	10.1	10.5
SW014	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.17	10.1	10.6
SW014	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	0.02	<0.05	<0.05	<0.02	<0.05	10.1	15.3	16.0
SW014	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.7	13.1	13.9
SW014	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.8	14.37	15.26
SW015	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	4.2	8.56	8.97
SW015	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	0.08	<0.12	0.26	<0.12	<0.12	<0.05	<0.12	46.8	62.0	64.4
SW015	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.8	18.6	19.4
SW015	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.96	7.38	7.71
SW015	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.72	12.7	13.2
SW015	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.07	7.19	7.59
SW015	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.13	<0.05	<0.05	<0.02	<0.05	7.77	14.2	15.2
SW015	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.04	<0.05	<0.05	<0.02	<0.05	2.76	4.13	4.34
SW015	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.37	5.74	6.02
SW015	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.79	5.97	6.28
SW015	09 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.5	5.05	5.41
SW015	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.03	<0.05	<0.05	<0.02	<0.05	3.86	7.76	8.37
SW015	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.03	<0.05	<0.05	<0.02	<0.05	3.99	8.11	8.67
SW015	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.3	7.49	8.1
SW016	21 Aug 2017	ALSE-Melbourne	EM1711532	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	4.9	9.03	9.61
SW016	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5.5	9.68	10.22
SW016	21 Aug 2017	MGT	559967-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5.5	9.68	10.22
SW016	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.3	10.98	11.6

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW016	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.02	<0.05	<0.05	<0.02	<0.05	2.66	5.43	5.75
SW016	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	9.39	15.9	17.0
SW016	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	4.77	7.38	7.82
SW016	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	5.01	8.46	8.89
SW016	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.47	6.07	6.45
SW016	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	0.64	<0.05	<0.05	0.06	<0.05	8.26	12.7	14.1
SW016	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.54	3.64	3.84
SW016	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.04	<0.05	<0.05	<0.02	<0.05	2.4	3.38	3.56
SW016	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	2.62	3.71	3.92
SW016	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	3.8	5.70	6.18
SW016	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	4.1	6.05	6.55
SW016	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	4.5	6.99	7.6
SW016	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	4.69	6.73	7.27
SW016	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	4.45	7.13	7.66
SW016	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	3.5	6.02	6.78
SW016	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	4.7	8	8.83
SW016	19 Nov 2024	ENVIROLAB	MFK0358	<0.0010	0.00075	0.00043	<0.0020	0.021	<0.050	0.010	<0.050	<0.10	0.0055	<0.50	5.8	-	9.8
SW017	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.06	<0.1
SW017	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.49	0.49	0.49
SW017	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.10	0.10
SW017	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.51	0.99	1.04
SW017	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.15	0.15
SW017	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	0.31	0.31
SW017	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
SW017	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.23	0.23
SW017	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.11	0.11
SW017	24 May 2023	Eurofins Environment ANZ	993983	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.13	0.13
SW017	24 May 2023	ALSE-Melbourne	EM2309599	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
SW017	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.16	0.16
SW017	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.20	0.20
SW017	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.15	0.16
SW018	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.79	0.93	0.97
SW018	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.5	2.36	2.64
SW018	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.29	6.19	7.18
SW018	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW018	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW018	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW018	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW018	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.77	1.05	1.14
SW018	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW018	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
SW018	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW018	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW019	21 Aug 2017	ALSE-Melbourne	EM1711532	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.49	2.92	3.23
SW019	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.78	3.33	3.72
SW019	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.85	3.43	3.82
SW019	21 Aug 2017	MGT	559967-1	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.85	3.43	3.82
SW019	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.42	7.38	8.25
SW019	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW019	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.16	0.16
SW019	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW019	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
SW019	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
SW019	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.31	0.33
SW019	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.10	0.10
SW019	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW019	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW019	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
SW020	21 Aug 2017	MGT	559967	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
SW020	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW020	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW020	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW020	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW020	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW020	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW020	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW020	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW020	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW020	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	<0.02	<0.02
SW020	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW020	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW020	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW021	24 Aug 2017	ALSE-Melbourne	EM1711508	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.12	0.12
SW021	24 Aug 2017	ALSE-Melbourne	EM1711508-1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.12	0.12
SW021	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.15	0.15
SW021	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.15	0.15
SW021	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.12	0.12
SW021	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
SW021	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.20	0.20
SW021	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW021	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	0.62	0.62
SW021	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW021	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.1	0.1
SW021	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.09	<0.1
SW021	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	0.13	0.13
SW021	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW021	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.06	<0.1
SW021	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	0.1	0.1
SW021	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW021	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW021	23 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.18	0.18
SW021	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW021	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.08	0.08
SW022	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW022	19 Nov 2019	MGT	689174	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW022	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW022	01 Dec 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW022	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
SW022	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
SW022	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.07	<0.1
SW022	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW022	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW023	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	0.75	0.75
SW023	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW023	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW023	30 Nov 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW023	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW023	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW023	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW023	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW024	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW024	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW024	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW024	30 Nov 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW024	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW024	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW025	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW026	24 Aug 2017	MGT	560227	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW027	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.24	0.24
SW027	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	0.34	0.34
SW027	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.37	0.38	0.38
SW027	16 Feb 2018	MGT	585592	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.028	0.03	0.03
SW027	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05
SW027	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.08	1.18	1.25
SW027	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
SW027	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.24	0.24
SW027	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.34	0.38	0.38
SW027	04 Nov 2021	ALSE-Melbourne	EM2122285	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.48	0.49	0.49
SW027	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.45	0.47	0.47
SW027	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.69	0.74	0.74
SW027	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.72	0.77	0.78
SW027	05 Nov 2021	ALSE-Melbourne	EM2122285	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.24	0.24
SW027	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.33	0.41	0.41
SW027	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.32	0.33	0.33
SW027	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.15	0.15
SW027	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.28	0.44	0.44
SW027	28 Jan 2022	ALSE-Melbourne	EM2201813	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.18	0.18

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW027	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.25	0.29	0.29
SW027	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.28	0.28
SW027	31 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.1
SW027	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.13	0.13
SW027	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW027	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	0.19	0.19
SW027	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.28	0.28
SW027	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW027	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.20	0.20
SW027	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.21	0.21
SW027	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW027	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW027	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW027	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW027	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.26	0.26
SW027	07 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.14	0.14
SW027	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.42	0.46	0.49
SW028	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.38	0.38	0.38
SW028	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.29	0.29	0.29
SW028	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.51	1.62	1.70
SW028	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26	0.26	0.26
SW028	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	0.28	0.28
SW028	26 Nov 2020	MGT	760007	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.44	0.47	0.47
SW028	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.29	0.29
SW028	01 Jul 2021	MGT	807707	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.44	0.47	0.47
SW028	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31	0.31	0.31
SW028	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.13	0.13
SW028	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW028	30 Nov 2021	MGT	849156	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	0.11	0.11
SW028	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW028	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW028	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06	1.13	1.15
SW028	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.37	0.37	0.37
SW028	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW028	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.36	0.38	0.4
SW029	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.27	0.28	0.28
SW029	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	2.08	0.28	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.94	6.90	7.06
SW029	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	4.18	0.89	<0.05	0.10	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.6	28.8	29.9
SW029	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	1.34	0.20	0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.75	6.74	7.13
SW029	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.13	0.13
SW029	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	0.49	0.49
SW029	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW029	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.3	0.3
SW029	04 Nov 2021	MGT	838904	<0.01	0.08	0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.39	0.88	0.9
SW029	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.15	0.15
SW029	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.16	0.16
SW029	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	0.06	<0.1
SW029	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
SW029	31 Jan 2022	MGT	860426	<0.01	0.11	0.04	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.88	0.92
SW029	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.1	0.1
SW029	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.16	0.16
SW029	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	0.06	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.28	0.46	0.47
SW029	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	0.35	0.35
SW029	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	0.39	0.39
SW029	29 May 2023	ALSE-Melbourne	EM2309600	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.9	1.29	1.29
SW029	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	0.21	0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.46	1.03	1.03

Data source is Defence Esdat.

Location Code	Date	Lab Name	Lab Report Number															
SW029	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	0.24	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44	1.11	1.11	
SW029	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	0.23	0.08	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42	1.04	1.04	
SW029	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	0.21	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47	1.21	1.21	
SW029	10 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.32	0.32	
SW029	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.1	
SW030	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.27	0.27	
SW030	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03	
SW030	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	0.46	0.49	
SW030	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.33	0.33	
SW030	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.84	1.46	1.48	
SW030	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.27	0.27	
SW030	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.33	0.33	
SW030	29 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.13	0.13	
SW030	10 May 2024	ALSE-Melbourne	EM2407537	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	0.48	0.48	
SW030	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.14	0.14	
SW031	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.05	3.66	0.35	<0.05	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.5	23	23.7	
SW031	28 Aug 2017	MGT	560833	<0.01	3.7	0.6	<0.01	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	29.9	39.3	40.21	
SW031	28 Aug 2017	MGT	560833	<0.01	4.7	0.59	0.01	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	34.3	44.45	45.2	
SW031	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	0.95	0.14	<0.05	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16	19.9	20.3	
SW031	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	0.64	0.22	<0.05	0.10	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	35.7	40.6	41.9	
SW031	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	1.32	0.38	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.6	34.5	35.3	
SW032	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.4	0.51	0.51	
SW032	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	0.15	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.36	2.32	2.38	
SW033	28 Aug 2017	MGT	560833	<0.01	4.2	0.43	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	25.9	34.9	35.55	
SW034	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1	
SW034	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1	
SW034	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01	
SW034	14 Nov 2019	ALSE-Melbourne	EM1919512	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.26	0.26	0.32	
SW035	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.19	0.22	
SW035	28 Aug 2017	MGT	560833	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.16	0.18	
SW035	28 Aug 2017	ALSE-Melbourne	EM1711671	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.07	0.09	
SW036	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0108	0.0108	0.0108	
SW036	18 Dec 2017	ALSE-Melbourne	EM1717589	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05	
SW037	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0078	0.0078	0.0078	
SW038	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.006	0.006	
SW039	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0027	<0.005	<0.005	
SW040	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.002	<0.005	<0.005	
SW041	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0015	<0.005	<0.005	
SW042	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0016	<0.005	<0.005	
SW043	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0014	<0.005	<0.005	
SW044	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0109	0.0109	0.0109	
SW044	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.003	<0.005	<0.005	
SW044	18 Dec 2017	ALSE-Melbourne	EM1717589	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05	
SW044	18 Dec 2017	ALSE-Melbourne	EM1717589	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.05	<0.05	
SW045	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0023	<0.005	<0.005	
SW046	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0021	<0.005	<0.005	
SW046	18 Dec 2017	MGT	578436	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1	
SW047	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0022	<0.005	<0.005	
SW048	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0012	<0.005	<0.005	
SW049	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
SW050	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
SW051	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
SW052	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	
SW053	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0021	<0.005	<0.005	
SW054	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0109	0.0109	0.0109	
SW054	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0015	<0.005	<0.005	

Table 9 Surface Water Historical Data Table
Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.
Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW054	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0027	<0.005	<0.005
SW054	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0014	<0.005	<0.005
SW055	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0013	<0.005	<0.005
SW055	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0014	<0.005	<0.005
SW055	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0014	<0.005	<0.005
SW055	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0015	<0.005	<0.005
SW056	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
SW056	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
SW056	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
SW056	18 Dec 2017	MGT	578436	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005
SW057	16 Mar 2018	MGT	589770	<0.001	<0.005	<0.001	<0.001	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	10.5	22.22	23.552
SW057	18 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	21.3	51.4	53.6
SW057	19 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.29	16.7	17.6
SW057	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.91	8.51	8.87
SW057	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.01	8.44	8.84
SW057	26 Nov 2020	MGT	760007	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5	10.2	10.81
SW057	30 Jun 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.22	11.9	12.5
SW057	30 Nov 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.36	12.3	12.9
SW057	03 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.03	<0.08	<0.03	<0.08	<0.08	<0.03	<0.08	20.1	29.9	31.1
SW057	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.44	9.69	10.2
SW057	24 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.36	12.6	13.2
SW057	05 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.9	12.74	13.56
SW057	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.23	9.90	10.5
SW057	06 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.18	9.25	9.84
SW057	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.48	7.34	8.16
SW057	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	5.8	13.88	14.77
SW057	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6.3	14.62	15.67
SW057	19 Nov 2024	ENVIROLAB	MFK0358	<0.010	<0.010	<0.020	<0.020	<0.10	<0.050	<0.020	<0.050	<0.10	<0.020	<0.50	8.1	-	19
SW058	04 Apr 2018	MGT	592478	<0.01	6	0.51	0.01	0.052	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	36.9	53.96	55.164
SW058	19 Nov 2019	MGT	689174	<0.01	1.4	0.17	0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	27.6	32.24	32.84
SW058	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	2.40	0.26	<0.05	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25	32.2	32.9
SW058	19 Nov 2019	ALSE-Melbourne	EM1919718	<0.05	2.52	0.26	<0.05	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	23.9	31.4	32.0
SW058	20 May 2020	ALSE-Melbourne	EM2008583	<0.05	3.28	0.36	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	31.5	41.4	42.3
SW058	25 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	1.61	0.21	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.8	24.6	25.1
SW059	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW060	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.005	<0.005
SW061	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW062	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.001	<0.005	<0.005
SW063	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.005	<0.005
SW064	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW064	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW064	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW065	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW066	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW067	07 May 2018	MGT	598200	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.005	<0.005
SW068	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.05	<0.1
SW068	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.05	<0.1
SW069	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.05	<0.1
SW070	30 May 2018	MGT	601156	<0.001	<0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.05	<0.1
SW071	21 Nov 2019	ALSE-Melbourne	EM1919885														

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW071	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW071	17 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW071	23 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW071	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW071	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW071	18 Nov 2024	ENVIROLAB	MFK0358	<0.0010	<0.00040	<0.00040	<0.0020	<0.010	<0.050	<0.0020	<0.050	<0.10	<0.0020	<0.50	0.0039	-	0.0039
SW071	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW071	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW072	21 May 2020	ALSE-Melbourne	EM2008583	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.65	5.41	5.70
SW072	18 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.83	3.25	3.38
SW072	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.15	0.15
SW072	10 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.25	0.25	0.25
SW073	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
SW073	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.10	0.10
SW073	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	0.31	0.31
SW073	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW073	03 May 2022	MGT	886234	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.32	2.26	2.59
SW073	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.08	1.86	2.01
SW073	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.2	1.97	2.16
SW073	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.21	0.21
SW073	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.11	0.11
SW073	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW073	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.13	0.13
SW073	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.14	0.14
SW074	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	0.29	0.29
SW074	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	0.33	0.33
SW074	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.61	0.82	0.88
SW074	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	0.23	0.23
SW074	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.14	0.14
SW074	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29	0.36	0.38
SW074	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	0.13	0.13
SW074	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	0.14	0.14
SW074	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW075	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
SW075	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW075	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW075	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW075	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW075	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW075	05 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.08	<0.1
SW075	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09	0.09
SW075	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.10	0.10
SW075	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW075	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW076	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW076	01 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW076	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.17	0.17
SW076	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW076	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.11	0.11
SW076	26 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW076	05 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW076	08 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW076	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW077	27 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.17	3.91	4.29
SW077	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.83	3.41	3.86
SW077	03 Nov 2021	ALSE-Melbourne	EM2122285	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW077	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.15	0.16
SW077	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.15	0.16
SW077	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.19	0.21
SW077	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.22	0.38	0.44
SW077	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.86	1.5	1.79
SW077	01 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.45	4.44	5.12
SW077	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.22	0.23
SW077	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.11	0.11
SW077	31 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	0.28	0.31
SW077	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.35	0.41
SW077	04 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW077	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.84	1.15	1.24
SW077	25 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21	0.30	0.32
SW077	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	0.14	0.14
SW077	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01	0.01
SW077	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04	0.04
SW077	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW077	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	0.08	0.12	0.26
SW078	26 Nov 2020	ALSE-Melbourne	EM2021043	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.19	0.19
SW078	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	0.24	0.26
SW078	02 Jul 2021	ALSE-Melbourne	EM2112638	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	0.23	0.23
SW078	02 Jul 2021	MGT	807703	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	0.27	0.29
SW078	02 Dec 2021	ALSE-Melbourne	EM2124215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.4	0.58	0.62
SW078	05 May 2022	ALSE-Melbourne	EM2208151	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03	0.03
SW078	15 Nov 2022	Eurofins Environment ANZ	943130	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.13	0.13
SW078	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
SW078	16 Nov 2022	ALSE-Melbourne	EM2223006	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.08	0.08
SW078	23 May 2023	ALSE-Melbourne	EM2309600	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW078	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW078	04 Dec 2023	ALSE-Melbourne	EM2321752	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	0.05	0.05
SW078	04 Dec 2023	Eurofins Environment ANZ	1051767	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.57	0.57	0.62
SW078	09 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07	0.07
SW078	18 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.1
SW079	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.16	0.17
SW079	04 Nov 2021	ALSE-Melbourne	EM2122285	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW079	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
SW079	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
SW079	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW079	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.25	0.25
SW079	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.14	0.14
SW079	27 Jan 2022	ALSE-Melbourne	EM2201813	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
SW079	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.21	0.21
SW079	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	0.13	0.13
SW079	31 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.18	0.18
SW079	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	0.23	0.24
SW079	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.20	0.20
SW079	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	0.06	0.06
SW079	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.04	0.04
SW080	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.1
SW080	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
SW080	04 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW080	05 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.06	<0.1
SW080	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW080	28 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
SW080	31 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW080	03 Feb 2022	ALSE-Melbourne	EM2201813	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01

Table 9 Surface Water Historical Data Table

Only PFAS compounds are shown in table. Results for other analytes are not shown in accordance with the scope of the PMAP OMP.

Data source is Defence Esdat.

	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides							PFAS		
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)	Sum of PFAS
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0004	0.0004	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0002	0.005	0.0002
PFAS NEMP 2025 Drinking Water												0.07		
PFAS NEMP 2025 Freshwater 99%														
PFAS NEMP 2025 Recreational Water												2		

Location Code	Date	Lab Name	Lab Report Number														
SW080	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW080	03 Feb 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW080	13 Feb 2024	ALSE-Melbourne	EM2402166	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW080	20 Mar 2024	ALSE-Melbourne	EM2404544	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01	<0.01
SW080	20 Mar 2024	Eurofins Environment ANZ	1081960	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.05	<0.1
SW080	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW080	02 Apr 2024	ALSE-Melbourne	EM2405138	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW080	02 Apr 2024	Eurofins Environment ANZ	1084386	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.1
SW081	21 May 2021	MGT	798556	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
SW081	21 May 2021	MGT	798556	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.1
SW081	21 May 2021	ALSE-Melbourne	EM2110097	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02	0.02
SW082	21 May 2021	MGT	798556	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.26	0.26
SW085	21 May 2021	MGT	798556	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	<0.05	<0.1
SW086	21 May 2021	MGT	798556	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.22	0.31	0.33
SW087	03 Nov 2021	MGT	838904	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	1.67	1.67
SW087	27 Jan 2022	MGT	860426	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	0.53	0.53
SW090	06 May 2024	Eurofins Environment ANZ	1096549	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.09	<0.1
SW090	06 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	0.15	0.15
SW090	06 May 2024	ALSE-Melbourne	EM2407537	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.16	0.16
SW090	19 Nov 2024	Eurofins Environment ANZ	1162570	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.08	<0.1

Environmental Standards

HEPA, January 2025, PFAS NEMP 3.0 Drinking Water

HEPA, January 2025, PFAS NEMP 3.0 Freshwater 99%

HEPA, January 2025, PFAS NEMP 3.0 Recreational Water

Appendix A Data Quality Assessment

Data Validation		
Project Number:	66022	
Client:	Department of Defence	
Site:	HMAS Cerberus, Victoria	
Matrix Type:	Groundwater, surface water	
Laboratory:	Eurofins Melbourne and Envirolab Services	
Precision		
Intra-Laboratory Duplicates (blind)	RPDs less than 30%, except where: - Results are less than 10 times the LOR (no limit). - Results are less than 20 times the LOR and the RPD is less than 50 % - Heterogeneous materials are encountered.	<u>Groundwater</u> Forty-six groundwater primary samples were analysed and a total of 9 groundwater blind duplicates were collected and analysed. Blind duplicates were collected and analysed at a rate greater than 1/10 primary samples. A total of 4 out of 126 replicate analytes (excluded ‘analytes’ which are a summation of other analytes) exceeded the acceptance criteria. Analyte concentrations between the primary and corresponding blind duplicate samples were within an order of magnitude. The RPD exceedances are associated with the low concentrations reported. As such, the exceedances are not considered to impact the validity of the data. <u>Surface water</u> Thirty-two surface water primary samples were analysed and a total of 4 surface water blind duplicates were collected and analysed. Blind duplicates were collected and analysed at a rate greater than 1/10 primary samples. A total of 2 out of 96 replicate analytes (excluded ‘analytes’ which are a summation of other analytes) exceeded the acceptance criteria. Analyte concentrations between the primary and corresponding blind duplicate samples were within an order of magnitude. The RPD exceedances are associated with the low concentrations reported. As such, the exceedances are not considered to impact the validity of the data.
Inter-laboratory duplicates (split)	RPDs less than 30 %, except where: - Results are less than 10 times the LOR (no limit). - Results are less than 20 times the LOR and the RPD is less than 50 % Heterogeneous materials are encountered.	<u>Groundwater</u> Forty-six groundwater primary samples were analysed and a total of 6 groundwater split duplicates were collected and analysed. Split duplicates were collected and analysed at a rate greater than 1/10 primary samples. A total of 3 out of 11 samples exceeded the acceptance criteria. Analyte concentrations between the primary and corresponding blind duplicate samples were within an order of magnitude. The RPD exceedances are generally associated with the low concentrations reported. As such, the exceedances are not considered to impact the validity of the data. <u>Surface water</u> Thirty-two surface water primary samples were analysed and a total of 4 surface water split duplicates were collected and analysed. Split duplicates were collected and analysed at a rate greater than 1/10

		primary samples. A total of 3 out of 4 samples exceeded the acceptance criteria. Analyte concentrations between the primary and corresponding blind duplicate samples were within an order of magnitude, with the exception of N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) in SW016 which recorded a 1-2 order of magnitude difference. The primary laboratory result was higher and was related to PFAS which do not have assessment criteria as part of this assessment. The RPD exceedances are generally associated with the low concentrations reported. As such, the exceedances are not considered to impact the validity of the data. Inter-laboratory duplicate analytical results are presented in Table 6.
Laboratory duplicates	RPDs less than: 20% for high level laboratory duplicates (i.e. >20 x LOR). 50% for medium level laboratory duplicates (i.e. 10 to 20 x LOR).	No marginal water laboratory duplicate exceedances were reported out of 187 analysed. The concentration reported are within the margin of error and are not considered to impact the validity of the data.
Limit of reporting	-	The limit of reporting was sufficiently low to enable assessment against adopted screening criteria.
Accuracy		
Field Rinsate blanks	Less than laboratory LOR	Rinsate blank samples were collected at a frequency of at least one per day of sampling where appropriate (19 in total). Rinsate blank samples were collected from the decontaminated interface probe. Results are presented in Tables. PFAS concentrations were reported below the LOR in all samples tested.
Field Blanks	Less than laboratory LOR	Field blank samples were generally collected at a frequency of at least one per day of sampling.
Field trip blanks	Less than laboratory LOR	A total of 31 trip blanks were submitted and analysed for PFAS. All analytes reported concentrations below the LOR.
Laboratory matrix spikes	Recoveries between 70-130 %	Eighteen out of 203 matrix spike results were outside of the target recovery range with the majority of those between 75 and 88%. This low recovery range was related to PFAS which do not have assessment criteria as part of this assessment. Overall, matrix spike recoveries outside of the target range do not impact the validity of the data.
Laboratory method blanks	Less than the laboratory LOR.	Seventy-six out of 537 lab control samples were outside of the target recovery range with the majority of those below the LOR. All recovery ranges outside of the target range were related to PFAS which do not have assessment criteria as part of this assessment. Overall, method blank samples outside of the target range do not impact the validity of the data.
Laboratory control samples	Recoveries between laboratories specified range for each particular analyte/analytical suite.	All Laboratory Control Spikes (LCS) recoveries (where reported) were within control limits, except: • 1161464 (water): LCS recovery for Perfluorodecane sulfonic acid (PFDS), PFOA • 1162531 (water): LCS recovery for Perfluorotridecanoic acid (PFTrDA), PFDS • 1162570 (water): LCS recovery for PFOS, Perfluorobutane sulfonic acid (PFBS), PFNS, PFDS, PFTrDA, Perfluorooctane sulfonamide

		(FOSA), MeFOSAA, N-Ethyl perfluorooctane sulfonamide (EtFOSA), N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) • MFK0357 (water): Perfluorotridecanoic acid (PFTrDA) • MFK0358 (water): PFTrDA The above were generally below the lower control limit, with limited samples greater than the upper control limit. A total of 30 LCS recoveries were outside the target range, out of 371 for the primary laboratory. Recoveries for the key analytes (PFOS and PFHxS) which within the expected range except one PFOS LCS with recovery of 74% in one sample. A total of 2 out of 90 LCS recoveries were outside the target range for the secondary laboratory. LCS are known, interference-free matrix spiked with target analytes or certified reference material. The purpose of this quality control type is to monitor precision and accuracy independent of sample matrix and to indicate if the analytical procedure is in control and evaluates the laboratory capability to report unbiased results. The results indicate a slight Although some non-conformances have been detected in a small number of QC samples, the non-conformances do not impact the understanding of the concentrations of these compounds.
Data transcription	-	A random check of 10 % of the laboratory results identified no anomalies within the electronic results, table and figures generated by JBS&G.
Representativeness		
Holding times	All samples within holding time	Samples were extracted and analysed within recommended holding times.
Sample locations	-	All samples were collected at locations prescribed by the OMP with the exception of SW075.
Sampling methodology	-	Samples were collected using appropriate methods, in accordance with the methodology detailed within the SAQP and as detailed in this SER.
Equipment decontamination	-	Non-dedicated sampling equipment was decontaminated between sample locations, in accordance with the SAQP as detailed in this SER.
Equipment calibration	-	All field equipment was calibrated by the equipment supplier. Calibration certificates and bump test have been provided as Appendix B .
Comparability		
Sampler	-	Sampling was completed by appropriated trained and qualified personnel.
Standard procedures	-	Sampling was completed in accordance with mythologies outlined in the SAQP.
Analytical method		Samples were analysed using a NATA accredited methodologies.
Completeness		
Program	-	The scope of works was undertaken in general accordance with the SAQP. Deviation from the SAQP have been documentation in the SER and are not considered to have a material impact on the program objectives.

Data validity	-	The data reliability assessment indicates no significant system errors in data collection and analysis. As sch, the data is considered to be adequately valid and complete.
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Appendix B Calibration Records

Oil / Water Interface Meter

Instrument **Interface Meter (30M)**
Serial No. **3984**



Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
	above 7.9V	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Tested by:

Test date:

12/11/2024

Next Test due:

11/05/2025

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **18J104331**



airmet

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

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

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. D.O		0 ppm		407802	0 ppm
2. Conductivity		2760uS		414103	2760uS
3. pH7		pH 7.00		413975	pH 7.00
4. pH4		pH 4.00		414101	pH 4.00
5. ORP mV		237.3		411371 / 398193	237.3
6. Temp °C		18.5		33938728	18.5

Calibrated by:



Calibration date:

11-Nov-24

Next calibration due:

10-May-25

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **10G100832**



airmet

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

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

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. D.O		0 ppm		391223	0 ppm
2. Conductivity		2760uS		406852	2760uS
3. pH7		pH 7.00		399304	pH 7.00
4. pH4		pH 4.00		405866	pH 4.00
5. ORP mV		237.3		405006/398193	237.3
6. Temp °C		18.5		163377	18.5

Calibrated by:



Calibration date:

11-Nov-24

Next calibration due:

10-May-25

Oil / Water Interface Meter	67.0	8112024M
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Instrument	Solinst Interface Meter (60m)
Serial No.	348903



airmet

Air-Met Scientific Pty Ltd
1800 000 744

[illegible]

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: [REDACTED]

Calibration date: 8/11/2024

Next calibration due: 7/05/2025

Oil / Water Interface Meter 191.0 8112024M

Instrument Solinst Interface Meter (30m)
Serial No. 288152



airmet
 Air-Met Scientific Pty Ltd
 1800 000 744

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: [REDACTED]

Calibration date: 8/11/2024

Next calibration due: 7/05/2025

Appendix C Laboratory Certificates and Chain of Custody

JBS&G (Australia) Pty Ltd

[illegible]

CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd



CLIENT: JBS&G		LABORATORY:		LABORATORY BATCH NO.:	
SITE/PROJECT NAME: VIC_0066_PFA50MP-24a		COC Reference #: NA		SAMPLERS:	
SEND REPORT TO: JBS&G Australia Pty Ltd		SEND INVOICE TO: JBS&G Australia Pty Ltd		PHONE: 03 9642 0599	
DATA NEEDED BY: standard		REPORT NEEDED BY: standard		REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES	
SITE/PROJECT NUMBER: 66022		NOTE #:			
RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT: Courier	
CO		NAME:		DATE:	
OF: JBS&G (Australia) Pty Ltd		OF:		TIME:	
NAME:		NAME:		DATE:	
OF:		OF:		TIME:	
P.O. NO.:		COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to Envirolab (highlighted purple) for analysis.		ANALYSIS REQUIRED	

FOR LAB USE ONLY

COOLER SEAL

Yes No

Broken Intact

COOLER TEMP: deg.C

ANALYSIS TO COME VIA EMAIL:

SAMPLE DATA				CONTAINER DATA													
SAMPLE ID		MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field										
0066_QC301_241111		WATER	11/11/2024		2 X 250ML PFAS				X								
0066_QC302_241111		WATER	11/11/2024		2 X 250ML PFAS				X								
0066_QC301_241112		WATER	12/11/2024		2 X 250ML PFAS				X								
0066_QC302_241112		WATER	12/11/2024		2 X 250ML PFAS				X								
0066_QC301_241113		WATER	13/11/2024		2 X 250ML PFAS				X								
0066_QC302_241113		WATER	13/11/2024		2 X 250ML PFAS				X								
0066_QC301_241114		WATER	14/11/2024		2 X 250ML PFAS				X								
0066_QC302_241114		WATER	14/11/2024		2 X 250ML PFAS				X								
0066_QC101_241114		WATER	14/11/2024		1 X 500ML PFAS			X									
0066_QC102_241114		WATER	14/11/2024		1 X 500ML PFAS			X									
0066_QC103_241114		WATER	14/11/2024		1 X 500ML PFAS					X							
0066_QC104_241114		WATER	14/11/2024		1 X 500ML PFAS					X							
0066_QC105_241114		WATER	14/11/2024		1 X 500ML PFAS					X							
0066_QC201_241114		WATER	14/11/2024		1 X 500ML PFAS			X									Forward to envirolab for analysis
0066_QC202_241114		WATER	14/11/2024		1 X 500ML PFAS			X									Forward to envirolab for analysis
0066_QC203_241114		WATER	14/11/2024		1 X 500ML PFAS					X							Forward to envirolab for analysis
0066_QC204_241114		WATER	14/11/2024		1 X 500ML PFAS					X							Forward to envirolab for analysis
0066_QC205_241114		WATER	14/11/2024		1 X 500ML PFAS					X							Forward to envirolab for analysis
0066_QC401_241114		WATER	14/11/2024		2 X 250ML PFAS				X								
0066_MW206_241115		WATER	15/11/2024		1 X 500ML PFAS			X									
0066_MW204_241114		WATER	14/11/2024		1 X 500ML PFAS			X									
0066_MW210_241114		WATER	14/11/2024		1 X 500ML PFAS			X									
0066_MW218_241114		WATER	14/11/2024		1 X 500ML PFAS			X									
0066_MW202_241115		WATER	15/11/2024		1 X 500ML PFAS			X									
0066_QC101_241115		WATER	15/11/2024		1 X 500ML PFAS			X									
0066_QC102_241115		WATER	15/11/2024		1 X 500ML PFAS			X									

*Container Type and Preservative Codes:

P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST = Sodium Thiosulphate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

JBS&G (Australia) Pty Ltd



CLIENT: JBS&G		LABORATORY:		LABORATORY BATCH NO.:	
SITE/PROJECT NAME: VIC_0066_PFASOMP_24a		COC Reference #: NA		SAMPLERS:	
SEND REPORT TO: JBS&G Australia Pty Ltd		SEND INVOICE TO: JBS&G Australia Pty Ltd		PHONE: 03 9642 0599	
DATA NEEDED BY: standard		REPORT NEEDED BY: standard		REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES	
SITE/PROJECT NUMBER: 66022		QUOTE #:			
RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT: Courier	
CO		NAME :		DATE:	
OF: JBS&G (Australia) Pty Ltd		OF:		TIME:	
NAME:		NAME :		DATE:	
OF:		OF:		TIME:	
				TRANSPORT CO. NAME.	

[illegible][illegible]

CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd

10

2/2

CLIENT: JBS&G		LABORATORY:		LABORATORY BATCH NO.:																																																																																																																																																																																																																																															
SITE/PROJECT NAME: VIC_0066_PFA5OMP_24a		DOC Reference #: NA		SAMPLES:																																																																																																																																																																																																																																															
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OF: JBS&G (Australia) Pty Ltd		TIME: 4:50pm (15/11/24)		DATE:																																																																																																																																																																																																																																															
NAME:		DATE:		TIME:																																																																																																																																																																																																																																															
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P.O. NO.:		COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to EnviroLab (highlighted purple) for analysis.		ANALYSIS REQUIRED																																																																																																																																																																																																																																															
FOR LAB USE ONLY COOLER SEAL Yes No Broken Intact COOLER TEMP: deg.C																																																																																																																																																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">SAMPLE DATA</th> <th colspan="4">CONTAINER DATA</th> </tr> <tr> <th>SAMPLE ID</th> <th>MATRIX</th> <th>DATE</th> <th>TIME</th> <th>TYPE & PRESERVATIVE</th> <th>NO.</th> <th>pH field</th> <th></th> </tr> </thead> <tbody> <tr><td>0066_QC103_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td></td></tr> <tr><td>0066_QC201_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC202_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC203_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW069_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW071_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW070_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW019_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW043_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW061_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW062_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW083_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW064_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW217D_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW046_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW047_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW033_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW054_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW207_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW003_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW208_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW209_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_MW109_241114</td><td>WATER</td><td>14/11/2024</td><td></td><td>1 X 500ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC501_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC502_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC503_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC504_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> <tr><td>0066_QC301_241115</td><td>WATER</td><td>15/11/2024</td><td></td><td>2 X 250ML PFAS</td><td></td><td></td><td>X</td></tr> </tbody> </table>		SAMPLE DATA				CONTAINER DATA				SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field		0066_QC103_241115	WATER	15/11/2024		1 X 500ML PFAS				0066_QC201_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_QC202_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_QC203_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_MW069_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW071_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW070_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW019_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW043_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW061_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW062_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW083_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW064_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_MW217D_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW046_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW047_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW033_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW054_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW207_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW003_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW208_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW209_241115	WATER	15/11/2024		1 X 500ML PFAS			X	0066_MW109_241114	WATER	14/11/2024		1 X 500ML PFAS			X	0066_QC501_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_QC502_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_QC503_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_QC504_241115	WATER	15/11/2024		2 X 250ML PFAS			X	0066_QC301_241115	WATER	15/11/2024		2 X 250ML PFAS			X	PFAS/MLL - PFAS/MLL: Per- and Polyfluoroalkyl Substances (PFAS) - Trace PFAS Short Sulfate Standard HOLD	
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Forward to enviroLab for analysis

Forward to enviroLab for analysis

Forward to enviroLab for analysis

Page 2 of 4

RE: 66022 - Cerberus ECOC and Eskies

[REDACTED]

Date Mon 18/11/24 11:33 AM

[REDACTED]

 1 attachment (40 KB)
66022_COC_151124.xlsx;

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.

Hey [REDACTED]

Apologies, we have made some minor adjustments to this COC – please disregard the one sent earlier and follow analysis according to the attached updated copy.

Thank you very much!

[REDACTED]

[REDACTED]

Sent: Monday, November 18, 2024 9:25 AM

[REDACTED]

Subject: RE: 66022 - Cerberus ECOC and Eskies

*****[EXTERNAL EMAIL]** Stop and think before opening attachments, clicking or responding. ***

Thanks [REDACTED]

[REDACTED] – COC attached

Kind regards,

[REDACTED]

[REDACTED]

PROJECT NO.: 66022

LABORATORY BATCH NO.:

PROJECT NAME: ~~HMAS Zeeberg~~ VIC-0066-PFAJOMP-24g

SAMPLERS:

DATE NEEDED BY: STANDARD

QC LEVEL: NEPM (2013)

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	PFAS 500 mL	PFAS 125 mL	TYPE OF ASBESTOS ANALYSIS		NOTES:
								IDENTIFICATION	NEPM/WA	
QC301-24111	Water	11/11/24		1x 500mL PFAS X2 250mL PFAS						
QC302-24111	↓	↓								
QC301-24112	Water	12/11/24								
QC302-24112	↓	↓								
QC301-24113	Water	13/11/24								
QC302-24113	↓	↓								
QC301-24114	Water	14/11/24								
QC302-24114	↓	↓								
QC401-24114	Water	14/11/24		X1 500mL PFAS						
QC102										
QC103										
QC104										
QC105										
QC201										
QC202										
QC203										
QC204										
QC205										
QC401-24114	Water	14/11/24		X2 250mL PFAS						

RELINQUISHED BY:		METHOD OF SHIPMENT:		RECEIVED BY:		FOR RECEIVING LAB USE ONLY:	
NAME: C. ARAN	DATE: 15/11/24	CONSIGNMENT NOTE NO.		NAME:		COOLER SEAL - Yes..... No Intact Broken	
OF: JBS&G		TRANSPORT CO.		DATE:		COOLER TEMP deg C	
NAME: JAW	DATE: 15/11	CONSIGNMENT NOTE NO.		NAME:	DATE:	COOLER SEAL - Yes..... No Intact Broken	
OF:		TRANSPORT CO.		OF:		COOLER TEMP deg C	

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsrd.; C = Sodium Hydroxide Prsrd; VC = Hydrochloric Acid Prsrd Vial; VS = Sulfuric Acid Prsrd Vial; S = Sulfuric Acid Prsrd; Z = Zinc Prsrd; E = EDTA Prsrd; ST = Sterile Bottle; O = Other

Chain of Custody

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Please add '0066' to the start of each sample ID

Please send any samples that have '0066_QC20X_XXXXX' to enviro lab

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	PFAS 500 mL	PFAS 125 mL	TYPE OF ASBESTOS ANALYSIS	IDENTIFICATION	NEPM/WA	NOTES:
QC501-14/1/15	15/11/24	water		1x 500ml PFAS x 2 250ml PFAS	PTAS						
QC502											
QC503											
QC504											
QC301											
QC302											
QC401											
MW030											
MW121											
MW212											
MW213											
MW029											
MW028											
MW112											
MW075											
MW214											
MW074											
MW215											
MW215D											

RELINQUISHED BY: NAME: _____ DATE: _____ OF: JBS&G		METHOD OF SHIPMENT: CONSIGNMENT NOTE NO. _____ TRANSPORT CO. _____ CONSIGNMENT NOTE NO. _____ TRANSPORT CO. _____		RECEIVED BY: NAME: _____ DATE: _____ OF: _____ NAME: _____ DATE: _____ OF: _____		FOR RECEIVING LAB USE ONLY: COOLER SEAL – Yes..... No Intact Broken COOLER TEMP deg C COOLER SEAL – Yes..... No Intact Broken COOLER TEMP deg C	
---	--	--	--	---	--	--	--

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other



RELINQUISHED BY:		METHOD OF SHIPMENT:		RECEIVED BY:		FOR RECEIVING LAB USE ONLY:	
NAME:	DATE:	CONSIGNMENT NOTE NO.		NAME:		COOLER SEAL – Yes..... No Intact Broken	
OF: JBS&G		TRANSPORT CO.		DATE:			
				OF:		COOLER TEMP deg C	
NAME:	DATE:	CONSIGNMENT NOTE NO.		NAME:	DATE:	COOLER SEAL – Yes..... No Intact Broken	
OF:		TRANSPORT CO		OF:		COOLER TEMP deg C	

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Chain of Custody

[illegible]

CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd



CLIENT: JBS&G

LABORATORY:

LABORATORY BATCH NO.:

SITE/PROJECT NAME: VIC_0066_PFSOMP_24a

COC Reference #: NA

SAMPLERS:

SEND REPORT TO: JBS&G Australia Pty Ltd

SEND INVOICE TO: JBS&G Australia Pty Ltd

PHONE: 03 9642 0599

DATA NEEDED BY: standard

REPORT NEEDED BY: standard

REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES

SITE/PROJECT NUMBER: 66022

QUOTE #:

RELINQUISHED BY:

RECEIVED BY

METHOD OF SHIPMENT: Courier

CO

NAME:

DATE:

CONSIGNMENT NOTE NO.

OF: JBS&G (Australia) Pty Ltd

TIME: 4:50pm (15/11/24)

OF:

TIME:

NAME:

NAME:

DATE:

TRANSPORT CO. NAME.

OF:

OF:

TIME:

P.O. NO.:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to EnviroLab (highlighted purple) for analysis.

ANALYSIS REQUIRED

FOR LAB USE ONLY

COOLER SEAL

Yes

No

Broken

Intact

COOLER TEMP: deg.C

ANALYSIS TO COME VIA EMAIL

SAMPLE DATA

CONTAINER DATA

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field
0066_QC301_241111	WATER	11/11/2024		2 X 250ML PFAS		
0066_QC302_241111	WATER	11/11/2024		2 X 250ML PFAS		
0066_QC301_241112	WATER	12/11/2024		2 X 250ML PFAS		
0066_QC302_241112	WATER	12/11/2024		2 X 250ML PFAS		
0066_QC301_241113	WATER	13/11/2024		2 X 250ML PFAS		
0066_QC302_241113	WATER	13/11/2024		2 X 250ML PFAS		
0066_QC301_241114	WATER	14/11/2024		2 X 250ML PFAS		
0066_QC302_241114	WATER	14/11/2024		2 X 250ML PFAS		
0066_QC101_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC102_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC103_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC104_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC105_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC201_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC202_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC203_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC204_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC205_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC401_241114	WATER	14/11/2024		2 X 250ML PFAS		
0066_MW206_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW204_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW210_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW218_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW202_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_QC101_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_QC102_241115	WATER	15/11/2024		1 X 500ML PFAS		

PFAS/MSL - PFAS/MSL: For and/or PFAS/MSL

Substances (PFAS) - Trace

PFAS Short Suite Standard

HOLD

*Container Type and Preservative Codes:

P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST = Sodium Thiosulphate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

Forward to enviroLab for analysis

Forward to enviroLab for analysis

Forward to enviroLab for analysis

Forward to enviroLab for analysis

Forward to enviroLab for analysis

RE: Eurofins Sample Receipt Advice - Report 1161464 : Site VIC_0066_PFASOMP_24A (66022)

From [REDACTED]
Date Tue 19/11/24 12:18 PM
To [REDACTED]

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 Team,

Regarding the missing samples please see notes below:

- MW145_241115 – this sample was included on the COC by accident (please remove from the COC as no sample was collected)
- QC301_241111, QC302_241111, QC301_241112, QC302_241112, QC301_241113, QC302_241113 – apologies, please also remove these samples from the COC (these samples were collected, however, left out of the batch of eskies – we will include these samples in a future batch of samples this week – for now, please remove from COC and we will include these in another one this week)

Please let me know if we can provide any further information.

Many thanks,

Subject: Eurofins Sample Receipt Advice - Report 1161464 : Site VIC_0066_PFASOMP_24A (66022)

*****[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.*****

Dear Valued Client,

Missing Samples= MW145_241115, QC301_241111, QC302_241111, QC301_241112, QC302_241112, QC301_241113, QC302_241113

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins Analytical Services Manager as soon as possible to make certain that they get changed.

[illegible]

Sample Receipt Advice

Company name: JBS & G Australia (VIC) P/L
Contact name: [REDACTED]
Project name: VIC_0066_PFASOMP_24A
Project ID: 66022
Turnaround time: 7 Day
Date/Time received: Nov 18, 2024 11:33 AM
Eurofins reference: 1161464

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 : 16.8 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.
- ✓ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Missing Samples= MW145_241115, QC301_241111, QC302_241111, QC301_241114, QC302_241114

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Results will be delivered electronically via email to

Note: A copy of these results will also be delivered to the general JBS & G Australia (VIC) P/L email address.



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Order No.:
Report #:
Phone:
Fax:

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name:

Company Name: JBS & G Australia (VIC) P/L
Address:

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Eurofins Analytical Services Manager :

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	0066_QC301_241113	Nov 14, 2024		Water	M24-No0047831				X
2	0066_QC302_241113	Nov 14, 2024		Water	M24-No0047832				X
3	0066_QC101_241114	Nov 14, 2024		Water	M24-No0047833			X	
4	0066_QC102_241114	Nov 14, 2024		Water	M24-No0047834			X	
5	0066_QC401_241114	Nov 14, 2024		Water	M24-No0047835				X
6	0066_MW206_241115	Nov 15, 2024		Water	M24-No0047836			X	
7	0066_MW204_241114	Nov 14, 2024		Water	M24-No0047837			X	
8	0066_MW210_241114	Nov 14, 2024		Water	M24-No0047838			X	
9	0066_MW218	Nov 14, 2024		Water	M24-No0047839			X	



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email: EnviroSales@eurofinsanz.com

IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24A

Project ID: 66022

Order No.: [REDACTED]

Report #: 1161464

Phone: [REDACTED]

Fax: [REDACTED]

Received: Nov 18, 2024 11:33 AM

Due: Nov 27, 2024

Priority: 7 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
	241114								
10	0066_MW202_241115	Nov 15, 2024		Water	M24-No0047840			X	
11	0066_QC101_241115	Nov 15, 2024		Water	M24-No0047841			X	
12	0066_QC102_241115	Nov 15, 2024		Water	M24-No0047842			X	
13	0066_MW069_241114	Nov 14, 2024		Water	M24-No0047843			X	
14	0066_MW071_241114	Nov 14, 2024		Water	M24-No0047844			X	
15	0066_MW070_241114	Nov 14, 2024		Water	M24-No0047845			X	
16	0066_MW019_241114	Nov 14, 2024		Water	M24-No0047846			X	
17	0066_MW043_241114	Nov 14, 2024		Water	M24-No0047847			X	
18	0066_MW061_241114	Nov 14, 2024		Water	M24-No0047848			X	
19	0066_MW062	Nov 14, 2024		Water	M24-No0047849			X	



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.:
Report #: 1161464
Phone: [Redacted]
Fax:

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
19	0066_MW062_241114	Nov 14, 2024		Water	M24-No0047849				
20	0066_MW063_241114	Nov 14, 2024		Water	M24-No0047850			X	
21	0066_MW064_241114	Nov 14, 2024		Water	M24-No0047851			X	
22	0066_MW217D_241115	Nov 15, 2024		Water	M24-No0047852			X	
23	0066_MW046_241115	Nov 15, 2024		Water	M24-No0047853			X	
24	0066_MW047_241115	Nov 15, 2024		Water	M24-No0047854			X	
25	0066_MW033_241115	Nov 15, 2024		Water	M24-No0047855			X	
26	0066_MW054_241115	Nov 15, 2024		Water	M24-No0047856			X	
27	0066_MW207_241115	Nov 15, 2024		Water	M24-No0047857			X	
28	0066_MW003_241115	Nov 15, 2024		Water	M24-No0047858			X	



Company Name: JBS & G Australia (VIC) P/L
Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Order No.: [REDACTED]
Report #: 1161464
Phone: [REDACTED]
Fax: [REDACTED]

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
29	0066_MW208_241115	Nov 15, 2024		Water	M24-No0047859			X	
30	0066_MW209_241115	Nov 15, 2024		Water	M24-No0047860			X	
31	0066_MW109_241114	Nov 14, 2024		Water	M24-No0047861			X	
32	0066_QC501_241115	Nov 15, 2024		Water	M24-No0047862				X
33	0066_QC502_241115	Nov 15, 2024		Water	M24-No0047863				X
34	0066_QC503_241115	Nov 15, 2024		Water	M24-No0047864				X
35	0066_QC504_241115	Nov 15, 2024		Water	M24-No0047865				X
36	0066_QC301_241115	Nov 15, 2024		Water	M24-No0047866				X
37	0066_QC302_241115	Nov 15, 2024		Water	M24-No0047867				X
38	0066_QC401_241115	Nov 15, 2024		Water	M24-No0047868				X



web: [REDACTED]

Company Name: JBS & G Australia (VIC) P/L
Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Order No.: [REDACTED]
Report #: 1161464
Phone: [REDACTED]
Fax: [REDACTED]

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
39	0066_MW030_241115	Nov 15, 2024		Water	M24-No0047869			X	
40	0066_MW121_241115	Nov 15, 2024		Water	M24-No0047870			X	
41	0066_MW212_241115	Nov 15, 2024		Water	M24-No0047871			X	
42	0066_MW213_241115	Nov 15, 2024		Water	M24-No0047872			X	
43	0066_MW029_241115	Nov 15, 2024		Water	M24-No0047873			X	
44	0066_MW028_241115	Nov 15, 2024		Water	M24-No0047874			X	
45	0066_MW112_241115	Nov 15, 2024		Water	M24-No0047875			X	
46	0066_MW075_241115	Nov 15, 2024		Water	M24-No0047876			X	
47	0066_MW074_241115	Nov 15, 2024		Water	M24-No0047877			X	
48	0066_MW215_S_241115	Nov 15, 2024		Water	M24-No0047878			X	



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.: [Redacted]
Report #: 1161464
Phone: [Redacted]
Fax: [Redacted]

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
49	0066_MW215_D_241115	Nov 15, 2024		Water	M24-No0047879			X	
50	0066_QC301_241111	Nov 11, 2024		Water	M24-No0047880				X
51	0066_QC302_241111	Nov 11, 2024		Water	M24-No0047881				X
52	0066_QC301_241112	Nov 12, 2024		Water	M24-No0047882				X
53	0066_QC302_241112	Nov 12, 2024		Water	M24-No0047883				X
54	0066_QC301_241113	Nov 13, 2024		Water	M24-No0047884	X			
55	0066_QC302_241113	Nov 13, 2024		Water	M24-No0047885	X			
56	0066_QC301_241114	Nov 14, 2024		Water	M24-No0047886				X
57	0066_QC302_241114	Nov 14, 2024		Water	M24-No0047887				X
58	0066_MW122_D_151115	Nov 15, 2024		Water	M24-No0047888			X	



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.:
Report #: 1161464
Phone: [Redacted]
Fax:

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
59	0066_MW214_S_241115	Nov 15, 2024		Water	M24-No0047889			X	
60	0066_QC103_241114	Nov 14, 2024		Water	M24-No0047890				X
61	0066_QC104_241114	Nov 14, 2024		Water	M24-No0047891				X
62	0066_QC105_241114	Nov 14, 2024		Water	M24-No0047892				X
63	0066_QC103_241115	Nov 15, 2024		Water	M24-No0047893		X		
Test Counts						2	1	41	19

JBS & G Australia (VIC) P/L
PO Box 3166
Norwood
SA 5067



NATA Accredited
Accreditation Number 1261
Site Number 1254

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:

Report **1161464-W-V2**
Project name **VIC_0066_PFASOMP_24A**
Project ID **66022**
Received Date **Nov 18, 2024**

Client Sample ID			0066_QC301_2 41113	0066_QC302_2 41113	0066_QC101_2 41114	0066_QC102_2 41114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047831	M24- No0047832	M24- No0047833	M24- No0047834
Date Sampled			Nov 14, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	-	-
13C2-6:2 FTSA (surr.)	1	%	123	115	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
18O2-PFHxS (surr.)	1	%	94	84	-	-
13C8-PFOS (surr.)	1	%	96	84	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
13C8-PFOA (surr.)	1	%	115	105	-	-
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	-	-	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	-	0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	0.02	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	-	-	< 0.01	< 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 (PFTeDA) ^{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	%	-	-	68	66
13C5-PFPeA (surr.)	1	%	-	-	95	97
13C5-PFHxA (surr.)	1	%	-	-	81	92
13C4-PFHpA (surr.)	1	%	-	-	87	103
13C8-PFOA (surr.)	1	%	-	-	74	90
13C5-PFNA (surr.)	1	%	-	-	68	81
13C6-PFDA (surr.)	1	%	-	-	58	63
13C2-PFUnDA (surr.)	1	%	-	-	49	48
13C2-PFDoDA (surr.)	1	%	-	-	33	29
13C2-PFTeDA (surr.)	1	%	-	-	22	11

Client Sample ID			0066_QC301_2 41113	0066_QC302_2 41113	0066_QC101_2 41114	0066_QC102_2 41114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047831	M24- No0047832	M24- No0047833	M24- No0047834
Date Sampled			Nov 14, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 2024
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	%	-	-	43	81
D3-N-MeFOSA (surr.)	1	%	-	-	19	15
D5-N-EtFOSA (surr.)	1	%	-	-	12	14
D7-N-MeFOSE (surr.)	1	%	-	-	15	31
D9-N-EtFOSE (surr.)	1	%	-	-	16	29
D5-N-EtFOSAA (surr.)	1	%	-	-	21	18
D3-N-MeFOSAA (surr.)	1	%	-	-	25	22
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	0.05	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	-	-	79	94
18O2-PFHxS (surr.)	1	%	-	-	75	86
13C8-PFOS (surr.)	1	%	-	-	67	81
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	-	-	76	80
13C2-6:2 FTSA (surr.)	1	%	-	-	66	75
13C2-8:2 FTSA (surr.)	1	%	-	-	52	55
13C2-10:2 FTSA (surr.)	1	%	-	-	33	26
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	0.05	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	0.07	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	0.07	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	-	0.08	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	-	-	< 0.1	< 0.1

Client Sample ID			0066_QC401_2 41114	0066_MW206_241115	0066_MW204_241114	0066_MW210_241114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047835	M24-No0047836	M24-No0047837	M24-No0047838
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
13C2-6:2 FTSA (surr.)	1	%	169	-	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	-	-	-
18O2-PFHxS (surr.)	1	%	129	-	-	-
13C8-PFOS (surr.)	1	%	125	-	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
13C8-PFOA (surr.)	1	%	166	-	-	-
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	-	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	-
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	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
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 (PFTTrDA) ^{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	%	-	64	83	66
13C5-PFPeA (surr.)	1	%	-	92	80	101
13C5-PFHxA (surr.)	1	%	-	87	86	96
13C4-PFHpA (surr.)	1	%	-	92	101	101
13C8-PFOA (surr.)	1	%	-	79	97	83
13C5-PFNA (surr.)	1	%	-	67	85	72
13C6-PFDA (surr.)	1	%	-	53	78	57
13C2-PFUnDA (surr.)	1	%	-	42	65	41
13C2-PFDoDA (surr.)	1	%	-	30	45	23
13C2-PFTeDA (surr.)	1	%	-	12	16	15
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	%	-	55	64	67
D3-N-MeFOSA (surr.)	1	%	-	18	17	20
D5-N-EtFOSA (surr.)	1	%	-	18	18	18

Client Sample ID			0066_QC401_241114	0066_MW206_241115	0066_MW204_241114	0066_MW210_241114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047835	M24-No0047836	M24-No0047837	M24-No0047838
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D7-N-MeFOSE (surr.)	1	%	-	25	43	29
D9-N-EtFOSE (surr.)	1	%	-	24	37	23
D5-N-EtFOSAA (surr.)	1	%	-	30	15	18
D3-N-MeFOSAA (surr.)	1	%	-	33	14	22
Perfluoroalkyl sulfonic acids (PFSA's)						
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	< 0.01
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	%	-	92	93	98
18O2-PFHxS (surr.)	1	%	-	80	96	83
13C8-PFOS (surr.)	1	%	-	61	96	71
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	%	-	74	71	84
13C2-6:2 FTSA (surr.)	1	%	-	73	81	72
13C2-8:2 FTSA (surr.)	1	%	-	49	61	51
13C2-10:2 FTSA (surr.)	1	%	-	32	40	23
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
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	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	-	< 0.1	< 0.1	< 0.1

Client Sample ID			0066_MW218_241114	0066_MW202_241115	0066_QC101_241115	0066_QC102_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047839	M24-No0047840	M24-No0047841	M24-No0047842
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 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}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_MW218_241114	0066_MW202_241115	0066_QC101_241115	0066_QC102_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047839	M24-No0047840	M24-No0047841	M24-No0047842
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
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	%	44	86	56	53
13C5-PFPeA (surr.)	1	%	83	83	95	90
13C5-PFHxA (surr.)	1	%	82	94	94	87
13C4-PFHpA (surr.)	1	%	91	119	113	90
13C8-PFOA (surr.)	1	%	76	114	105	70
13C5-PFNA (surr.)	1	%	64	105	96	58
13C6-PFDA (surr.)	1	%	49	88	82	47
13C2-PFUnDA (surr.)	1	%	38	70	72	33
13C2-PFDoDA (surr.)	1	%	23	52	51	22
13C2-PFTeDA (surr.)	1	%	17	30	44	11
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	%	71	70	86	33
D3-N-MeFOSA (surr.)	1	%	17	34	37	16
D5-N-EtFOSA (surr.)	1	%	13	35	35	15
D7-N-MeFOSE (surr.)	1	%	25	52	46	20
D9-N-EtFOSE (surr.)	1	%	21	51	43	18
D5-N-EtFOSAA (surr.)	1	%	24	27	44	29
D3-N-MeFOSAA (surr.)	1	%	34	20	47	36
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	< 0.04	< 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	0.02
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	89	101	114	91
18O2-PFHxS (surr.)	1	%	78	112	101	72
13C8-PFOS (surr.)	1	%	62	105	95	61

Client Sample ID			0066_MW218_241114	0066_MW202_241115	0066_QC101_241115	0066_QC102_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047839	M24-No0047840	M24-No0047841	M24-No0047842
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	54	68	79	73
13C2-6:2 FTSA (surr.)	1	%	57	90	86	61
13C2-8:2 FTSA (surr.)	1	%	39	78	71	41
13C2-10:2 FTSA (surr.)	1	%	20	47	45	23
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.01	< 0.01	0.03	0.03
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.01	< 0.01	0.02	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.01	< 0.01	0.03	0.03
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			0066_MW069_241114	0066_MW071_241114	0066_MW070_241114	0066_MW019_241114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047843	M24-No0047844	M24-No0047845	M24-No0047846
Date Sampled			Nov 14, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 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	0.46	0.01	0.03	0.02
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.07	0.06	0.15	0.04
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	0.02	0.09	0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	0.02	0.12	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 (PFTTrDA) ^{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	%	101	107	120	58
13C5-PFPeA (surr.)	1	%	116	53	64	89
13C5-PFHxA (surr.)	1	%	121	71	72	88
13C4-PFHpA (surr.)	1	%	60	100	84	102
13C8-PFOA (surr.)	1	%	64	97	58	91
13C5-PFNA (surr.)	1	%	74	92	66	79
13C6-PFDA (surr.)	1	%	78	80	56	61
13C2-PFUnDA (surr.)	1	%	81	73	46	51
13C2-PFDoDA (surr.)	1	%	54	47	34	37
13C2-PFTeDA (surr.)	1	%	34	21	18	20

Client Sample ID			0066_MW069_241114	0066_MW071_241114	0066_MW070_241114	0066_MW019_241114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047843	M24-No0047844	M24-No0047845	M24-No0047846
Date Sampled			Nov 14, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 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	%	69	48	60	43
D3-N-MeFOSA (surr.)	1	%	16	16	14	13
D5-N-EtFOSA (surr.)	1	%	18	18	17	22
D7-N-MeFOSE (surr.)	1	%	20	16	31	14
D9-N-EtFOSE (surr.)	1	%	22	17	33	15
D5-N-EtFOSAA (surr.)	1	%	37	16	18	35
D3-N-MeFOSAA (surr.)	1	%	55	21	24	36
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.04	0.02	0.05	0.03
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.03	< 0.01	0.02	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	0.04	0.12	0.02
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	0.30	3.0	0.07
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	%	77	90	88	96
18O2-PFHxS (surr.)	1	%	95	105	107	93
13C8-PFOS (surr.)	1	%	99	94	69	78
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	44	62	69	78
13C2-6:2 FTSA (surr.)	1	%	64	87	65	82
13C2-8:2 FTSA (surr.)	1	%	62	78	51	60
13C2-10:2 FTSA (surr.)	1	%	54	42	34	40
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	0.3	3	0.07
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	0.02	0.12	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	0.32	3.12	0.08
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.57	0.43	3.44	0.18
Sum of PFASs (n=30)*	0.1	ug/L	0.6	0.47	3.59	0.2

Client Sample ID			0066_MW043_241114	0066_MW061_241114	0066_MW062_241114	0066_MW063_241114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047847	M24-No0047848	M24-No0047849	M24-No0047850
Date Sampled			Nov 14, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 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	0.02	0.03	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	0.04	0.08	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.02	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	0.02	0.03	< 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	%	69	94	79	69
13C5-PFPeA (surr.)	1	%	65	61	51	68
13C5-PFHxA (surr.)	1	%	76	68	56	75
13C4-PFHpA (surr.)	1	%	94	93	80	86
13C8-PFOA (surr.)	1	%	86	108	89	72
13C5-PFNA (surr.)	1	%	75	109	87	59
13C6-PFDA (surr.)	1	%	60	93	79	48
13C2-PFUnDA (surr.)	1	%	49	84	61	35
13C2-PFDoDA (surr.)	1	%	37	68	50	27
13C2-PFTeDA (surr.)	1	%	23	68	49	18
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	%	38	67	50	40
D3-N-MeFOSA (surr.)	1	%	12	17	14	13
D5-N-EtFOSA (surr.)	1	%	18	11	16	15
D7-N-MeFOSE (surr.)	1	%	18	38	27	20
D9-N-EtFOSE (surr.)	1	%	17	35	26	18
D5-N-EtFOSAA (surr.)	1	%	24	30	25	30
D3-N-MeFOSAA (surr.)	1	%	23	41	29	31
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	0.02	0.03	< 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	0.02	0.03	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	0.21	0.27	0.03
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	0.06	0.07	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_MW043_241114	0066_MW061_241114	0066_MW062_241114	0066_MW063_241114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047847	M24-No0047848	M24-No0047849	M24-No0047850
Date Sampled			Nov 14, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	99	113	85	89
18O2-PFHxS (surr.)	1	%	87	104	95	78
13C8-PFOS (surr.)	1	%	76	105	91	60
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	59	63	43	92
13C2-6:2 FTSA (surr.)	1	%	72	72	56	68
13C2-8:2 FTSA (surr.)	1	%	57	89	64	44
13C2-10:2 FTSA (surr.)	1	%	41	66	48	25
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	0.27	0.34	0.03
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	0.08	0.1	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	0.29	0.37	0.03
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	0.37	0.53	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	0.39	0.57	< 0.1

Client Sample ID			0066_MW064_241114	0066_MW217D_241115	0066_MW046_241115	0066_MW047_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047851	M24-No0047852	M24-No0047853	M24-No0047854
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCA)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.04	< 0.01	0.03	0.02
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.13	< 0.01	0.03	0.04
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.03	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.01	0.03
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 (PFTTrDA) ^{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	%	107	52	56	62
13C5-PFPeA (surr.)	1	%	50	95	85	80
13C5-PFHxA (surr.)	1	%	111	91	87	77
13C4-PFHpA (surr.)	1	%	67	95	108	100
13C8-PFOA (surr.)	1	%	66	77	99	108
13C5-PFNA (surr.)	1	%	63	64	87	94
13C6-PFDA (surr.)	1	%	51	51	71	61

Client Sample ID			0066_MW064_241114	0066_MW217D_241115	0066_MW046_241115	0066_MW047_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047851	M24-No0047852	M24-No0047853	M24-No0047854
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C2-PFUnDA (surr.)	1	%	42	36	50	66
13C2-PFDoDA (surr.)	1	%	26	29	30	62
13C2-PFTeDA (surr.)	1	%	17	14	18	27
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	%	45	52	68	97
D3-N-MeFOSA (surr.)	1	%	16	19	18	28
D5-N-EtFOSA (surr.)	1	%	13	18	15	24
D7-N-MeFOSE (surr.)	1	%	14	19	29	42
D9-N-EtFOSE (surr.)	1	%	14	18	26	38
D5-N-EtFOSAA (surr.)	1	%	19	31	21	29
D3-N-MeFOSAA (surr.)	1	%	27	35	24	30
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.17	< 0.02	< 0.01	0.02
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.07	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.19	< 0.01	< 0.01	0.02
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	0.25	0.01	0.03	0.11
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	0.15	0.02	0.05	0.12
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	74	95	111	102
18O2-PFHxS (surr.)	1	%	100	80	100	105
13C8-PFOS (surr.)	1	%	96	64	87	97
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	45	74	84	94
13C2-6:2 FTSA (surr.)	1	%	52	67	85	89
13C2-8:2 FTSA (surr.)	1	%	41	43	59	66
13C2-10:2 FTSA (surr.)	1	%	25	29	29	47

Client Sample ID			0066_MW064_241114	0066_MW217D_241115	0066_MW046_241115	0066_MW047_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047851	M24-No0047852	M24-No0047853	M24-No0047854
Date Sampled			Nov 14, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.4	0.03	0.08	0.23
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.15	0.02	0.06	0.15
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.4	0.03	0.09	0.26
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.77	< 0.05	0.15	0.34
Sum of PFASs (n=30)*	0.1	ug/L	1.03	< 0.1	0.15	0.36

Client Sample ID			0066_MW033_241115	0066_MW054_241115	0066_MW207_241115	0066_MW003_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047855	M24-No0047856	M24-No0047857	M24-No0047858
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 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	0.04	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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 (PFTriDA) ^{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	%	75	63	94	62
13C5-PFPeA (surr.)	1	%	63	119	81	101
13C5-PFHxA (surr.)	1	%	72	57	83	92
13C4-PFHpA (surr.)	1	%	104	81	101	110
13C8-PFOA (surr.)	1	%	99	75	93	111
13C5-PFNA (surr.)	1	%	89	64	84	101
13C6-PFDA (surr.)	1	%	72	51	76	86
13C2-PFUnDA (surr.)	1	%	57	35	64	79
13C2-PFDoDA (surr.)	1	%	38	21	38	53
13C2-PFTeDA (surr.)	1	%	20	18	12	39
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	41	68	97

Client Sample ID			0066_MW033_241115	0066_MW054_241115	0066_MW207_241115	0066_MW003_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047855	M24-No0047856	M24-No0047857	M24-No0047858
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	19	14	21	14
D5-N-EtFOSA (surr.)	1	%	16	11	18	17
D7-N-MeFOSE (surr.)	1	%	30	23	32	31
D9-N-EtFOSE (surr.)	1	%	28	19	27	32
D5-N-EtFOSAA (surr.)	1	%	15	26	17	16
D3-N-MeFOSAA (surr.)	1	%	17	29	18	18
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	0.02	< 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	0.04	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	0.02	0.19	< 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	%	96	107	92	97
18O2-PFHxS (surr.)	1	%	103	99	93	102
13C8-PFOS (surr.)	1	%	88	63	91	105
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	65	50	62	73
13C2-6:2 FTSA (surr.)	1	%	87	73	76	80
13C2-8:2 FTSA (surr.)	1	%	58	47	57	64
13C2-10:2 FTSA (surr.)	1	%	29	22	35	33
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.03	0.19	< 0.01	< 0.01
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	0.03	0.19	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	0.25	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	0.29	< 0.1	< 0.1

Client Sample ID			0066_MW208_241115	0066_MW209_241115	0066_MW109_241114	0066_QC501_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047859	M24-No0047860	M24-No0047861	M24-No0047862
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 14, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
13C2-6:2 FTSA (surr.)	1	%	-	-	-	124
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	-	< 0.01
18O2-PFHxS (surr.)	1	%	-	-	-	90
13C8-PFOS (surr.)	1	%	-	-	-	88
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
13C8-PFOA (surr.)	1	%	-	-	-	111
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	-	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	-	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	-	< 0.01
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	< 0.01	-
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.01	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.02	-
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 (PFTTrDA) ^{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	%	60	86	85	-
13C5-PFPeA (surr.)	1	%	83	82	101	-
13C5-PFHxA (surr.)	1	%	90	86	87	-
13C4-PFHpA (surr.)	1	%	106	97	92	-
13C8-PFOA (surr.)	1	%	91	82	76	-
13C5-PFNA (surr.)	1	%	81	70	68	-
13C6-PFDA (surr.)	1	%	64	57	57	-
13C2-PFUnDA (surr.)	1	%	42	44	47	-
13C2-PFDoDA (surr.)	1	%	25	27	30	-
13C2-PFTeDA (surr.)	1	%	15	12	20	-
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	%	70	53	41	-
D3-N-MeFOSA (surr.)	1	%	15	16	19	-
D5-N-EtFOSA (surr.)	1	%	19	14	11	-

Client Sample ID			0066_MW208_241115	0066_MW209_241115	0066_MW109_241114	0066_QC501_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047859	M24-No0047860	M24-No0047861	M24-No0047862
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 14, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D7-N-MeFOSE (surr.)	1	%	25	23	14	-
D9-N-EtFOSE (surr.)	1	%	21	21	15	-
D5-N-EtFOSAA (surr.)	1	%	28	18	20	-
D3-N-MeFOSAA (surr.)	1	%	26	10	25	-
Perfluoroalkyl sulfonic acids (PFSA's)						
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	< 0.01	-
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	0.05	-
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	-
13C3-PFBS (surr.)	1	%	99	91	85	-
18O2-PFHxS (surr.)	1	%	93	85	77	-
13C8-PFOS (surr.)	1	%	79	67	66	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	%	72	63	81	-
13C2-6:2 FTSA (surr.)	1	%	78	66	69	-
13C2-8:2 FTSA (surr.)	1	%	53	44	51	-
13C2-10:2 FTSA (surr.)	1	%	25	21	31	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.05	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.07	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.07	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	0.08	-
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	-

Client Sample ID			0066_QC502_2 41115	0066_QC503_2 41115	0066_QC504_2 41115	0066_QC301_2 41115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047863	M24- No0047864	M24- No0047865	M24- No0047866
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	130	167	137	80
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	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
18O2-PFHxS (surr.)	1	%	96	120	100	53
13C8-PFOS (surr.)	1	%	95	124	97	56
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	125	153	123	68
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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

Client Sample ID			0066_QC302_2 41115	0066_QC401_2 41115	0066_MW030_241115	0066_MW121_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047867	M24- No0047868	M24- No0047869	M24- No0047870
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	-	-
13C2-6:2 FTSA (surr.)	1	%	87	80	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
18O2-PFHxS (surr.)	1	%	61	54	-	-
13C8-PFOS (surr.)	1	%	61	50	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
13C8-PFOA (surr.)	1	%	75	67	-	-
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	-	-	< 0.05	0.23
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	-	-	< 0.01	0.31
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	-	-	< 0.01	1.2
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	-	< 0.01	0.23
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	< 0.01	0.26
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	-	-	< 0.01	< 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 (PFTriDA) ^{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	%	-	-	59	89
13C5-PFPeA (surr.)	1	%	-	-	91	128
13C5-PFHxA (surr.)	1	%	-	-	90	116

Client Sample ID			0066_QC302_2 41115	0066_QC401_2 41115	0066_MW030_ 241115	0066_MW121_ 241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047867	M24- No0047868	M24- No0047869	M24- No0047870
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	-	-	99	94
13C8-PFOA (surr.)	1	%	-	-	81	68
13C5-PFNA (surr.)	1	%	-	-	70	84
13C6-PFDA (surr.)	1	%	-	-	59	62
13C2-PFUnDA (surr.)	1	%	-	-	46	55
13C2-PFDoDA (surr.)	1	%	-	-	28	33
13C2-PFTEdA (surr.)	1	%	-	-	22	18
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	%	-	-	58	68
D3-N-MeFOSA (surr.)	1	%	-	-	17	11
D5-N-EtFOSA (surr.)	1	%	-	-	15	20
D7-N-MeFOSE (surr.)	1	%	-	-	27	30
D9-N-EtFOSE (surr.)	1	%	-	-	24	26
D5-N-EtFOSAA (surr.)	1	%	-	-	22	15
D3-N-MeFOSAA (surr.)	1	%	-	-	40	18
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	-	-	< 0.01	0.48
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	-	-	< 0.01	0.22
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	-	-	< 0.01	0.42
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	0.01	2.3
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	-	-	< 0.01	0.16
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	0.01	1.5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	-	-	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	-	-	98	112
18O2-PFHxS (surr.)	1	%	-	-	81	105
13C8-PFOS (surr.)	1	%	-	-	68	104
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	-	-	75	70
13C2-6:2 FTSA (surr.)	1	%	-	-	62	71
13C2-8:2 FTSA (surr.)	1	%	-	-	46	53
13C2-10:2 FTSA (surr.)	1	%	-	-	34	28

Client Sample ID			0066_QC302_2 41115	0066_QC401_2 41115	0066_MW030_ 241115	0066_MW121_ 241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047867	M24- No0047868	M24- No0047869	M24- No0047870
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	0.02	3.8
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	0.01	1.76
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	0.02	4.06
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	-	< 0.05	6.51
Sum of PFASs (n=30)*	0.1	ug/L	-	-	< 0.1	7.31

Client Sample ID			0066_MW212_ 241115	0066_MW213_ 241115	0066_MW029_ 241115	0066_MW028_ 241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047871	M24- No0047872	M24- No0047873	M24- No0047874
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	0.08	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.07	0.18	0.05	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.40	1.0	0.07	0.04
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.20	0.19	0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	0.39	0.45	0.01	0.03
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	0.02	< 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 (PFTriDA) ^{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	%	115	127	41	121
13C5-PFPeA (surr.)	1	%	117	127	80	133
13C5-PFHxA (surr.)	1	%	112	115	79	61
13C4-PFHpA (surr.)	1	%	77	112	86	77
13C8-PFOA (surr.)	1	%	110	108	70	67
13C5-PFNA (surr.)	1	%	73	59	58	61
13C6-PFDA (surr.)	1	%	17	43	44	49
13C2-PFUnDA (surr.)	1	%	48	33	32	37
13C2-PFDoDA (surr.)	1	%	34	22	22	24
13C2-PFTeDA (surr.)	1	%	24	12	17	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	%	80	57	50	64

Client Sample ID			0066_MW212_241115	0066_MW213_241115	0066_MW029_241115	0066_MW028_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047871	M24-No0047872	M24-No0047873	M24-No0047874
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	23	17	13	22
D5-N-EtFOSA (surr.)	1	%	17	14	19	18
D7-N-MeFOSE (surr.)	1	%	30	21	20	22
D9-N-EtFOSE (surr.)	1	%	26	18	18	21
D5-N-EtFOSAA (surr.)	1	%	30	24	22	28
D3-N-MeFOSAA (surr.)	1	%	38	29	27	35
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.25	0.89	0.02	0.03
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	0.03	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.10	0.29	0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.33	0.76	0.02	0.05
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	4.6	6.7	0.09	0.31
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.53	0.10	< 0.01	0.04
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	21	0.35	0.03	0.32
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	108	114	91	88
18O2-PFHxS (surr.)	1	%	103	105	74	104
13C8-PFOS (surr.)	1	%	106	99	58	96
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	40	48	61	36
13C2-6:2 FTSA (surr.)	1	%	60	51	54	49
13C2-8:2 FTSA (surr.)	1	%	40	38	35	39
13C2-10:2 FTSA (surr.)	1	%	29	22	23	22
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	25.6	7.05	0.12	0.63
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	21.39	0.8	0.04	0.35
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	25.99	7.5	0.13	0.66
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	26.91	9.84	0.28	0.73
Sum of PFASs (n=30)*	0.1	ug/L	27.92	10.99	0.31	0.82

Client Sample ID			0066_MW112_241115	0066_MW075_241115	0066_MW074_241115	0066_MW215S_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047875	M24-No0047876	M24-No0047877	M24-No0047878
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	1.3	0.09	0.59
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	2.1	0.26	1.4
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	8.0	1.3	8.2
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	0.21	0.23	0.84
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	0.09	0.20	0.99
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	%	74	125	121	113
13C5-PFPeA (surr.)	1	%	85	121	125	119
13C5-PFHxA (surr.)	1	%	85	111	113	112
13C4-PFHpA (surr.)	1	%	96	112	53	110
13C8-PFOA (surr.)	1	%	83	111	51	111
13C5-PFNA (surr.)	1	%	72	67	81	72
13C6-PFDA (surr.)	1	%	59	35	64	22
13C2-PFUnDA (surr.)	1	%	46	32	53	57
13C2-PFDoDA (surr.)	1	%	25	24	33	40
13C2-PFTeDA (surr.)	1	%	16	14	17	34
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	41	67	53
D3-N-MeFOSA (surr.)	1	%	16	10	10	18
D5-N-EtFOSA (surr.)	1	%	13	15	17	16
D7-N-MeFOSE (surr.)	1	%	25	22	26	26
D9-N-EtFOSE (surr.)	1	%	21	18	24	23
D5-N-EtFOSAA (surr.)	1	%	38	19	20	26
D3-N-MeFOSAA (surr.)	1	%	48	17	12	23
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	6.6	0.95	4.1
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	3.8	0.23	1.7
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	2.7	0.79	4.3
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	1.6	4.2	21
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	0.09	0.08	0.66
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	1.3	0.23	12
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_MW112_241115	0066_MW075_241115	0066_MW074_241115	0066_MW215S_241115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047875	M24-No0047876	M24-No0047877	M24-No0047878
Date Sampled			Nov 15, 2024	Nov 15, 2024	Nov 15, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	90	120	115	113
18O2-PFHxS (surr.)	1	%	82	105	107	104
13C8-PFOS (surr.)	1	%	72	106	110	107
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	32	15	56
13C2-6:2 FTSA (surr.)	1	%	67	56	33	52
13C2-8:2 FTSA (surr.)	1	%	52	41	36	40
13C2-10:2 FTSA (surr.)	1	%	28	24	22	39
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	2.9	4.43	33
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	1.39	0.43	12.99
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	2.99	4.63	33.99
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	21.2	7.46	49.17
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	27.79	8.56	55.84

Client Sample ID			0066_MW215D_241115	0066_QC301_2_41111	0066_QC302_2_41111	0066_QC301_2_41112
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047879	M24-No0047880	M24-No0047881	M24-No0047882
Date Sampled			Nov 15, 2024	Nov 11, 2024	Nov 11, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	< 0.05	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	-	94	97	99
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
18O2-PFHxS (surr.)	1	%	-	100	98	99
13C8-PFOS (surr.)	1	%	-	96	96	100
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	-	95	96	100
Sum (PFHxS + PFOS)*	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
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	< 0.01
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.07	-	-	-
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.30	-	-	-
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.07	-	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	0.11	-	-	-

Client Sample ID			0066_MW215D_241115	0066_QC301_2_41111	0066_QC302_2_41111	0066_QC301_2_41112
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047879	M24-No0047880	M24-No0047881	M24-No0047882
Date Sampled			Nov 15, 2024	Nov 11, 2024	Nov 11, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	-	-	-
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
13C4-PFBA (surr.)	1	%	82	-	-	-
13C5-PFPeA (surr.)	1	%	75	-	-	-
13C5-PFHxA (surr.)	1	%	119	-	-	-
13C4-PFHpA (surr.)	1	%	101	-	-	-
13C8-PFOA (surr.)	1	%	80	-	-	-
13C5-PFNA (surr.)	1	%	86	-	-	-
13C6-PFDA (surr.)	1	%	66	-	-	-
13C2-PFUnDA (surr.)	1	%	52	-	-	-
13C2-PFDoDA (surr.)	1	%	33	-	-	-
13C2-PFTeDA (surr.)	1	%	24	-	-	-
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	-	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
13C8-FOSA (surr.)	1	%	53	-	-	-
D3-N-MeFOSA (surr.)	1	%	14	-	-	-
D5-N-EtFOSA (surr.)	1	%	12	-	-	-
D7-N-MeFOSE (surr.)	1	%	28	-	-	-
D9-N-EtFOSE (surr.)	1	%	25	-	-	-
D5-N-EtFOSAA (surr.)	1	%	31	-	-	-
D3-N-MeFOSAA (surr.)	1	%	34	-	-	-
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.21	-	-	-
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	-	-	-
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.10	-	-	-
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.33	-	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	2.1	-	-	-
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.09	-	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	0.36	-	-	-
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	-	-	-
13C3-PFBS (surr.)	1	%	115	-	-	-
18O2-PFHxS (surr.)	1	%	106	-	-	-
13C8-PFOS (surr.)	1	%	104	-	-	-

Client Sample ID			0066_MW215D_241115	0066_QC301_2_41111	0066_QC302_2_41111	0066_QC301_2_41112
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047879	M24-No0047880	M24-No0047881	M24-No0047882
Date Sampled			Nov 15, 2024	Nov 11, 2024	Nov 11, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
13C2-4:2 FTSA (surr.)	1	%	62	-	-	-
13C2-6:2 FTSA (surr.)	1	%	75	-	-	-
13C2-8:2 FTSA (surr.)	1	%	55	-	-	-
13C2-10:2 FTSA (surr.)	1	%	34	-	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	2.46	-	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.47	-	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	2.57	-	-	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	3.22	-	-	-
Sum of PFASs (n=30)*	0.1	ug/L	3.74	-	-	-

Client Sample ID			0066_QC302_2_41112	0066_QC301_2_41114	0066_QC302_2_41114	0066_MW122D_151115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047883	M24-No0047886	M24-No0047887	M24-No0047888
Date Sampled			Nov 12, 2024	Nov 14, 2024	Nov 14, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	-
13C2-6:2 FTSA (surr.)	1	%	101	73	47	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	-
18O2-PFHxS (surr.)	1	%	101	52	33	-
13C8-PFOS (surr.)	1	%	97	52	35	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	-
13C8-PFOA (surr.)	1	%	100	64	42	-
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	-
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	< 0.01	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	-	-	-	< 0.01

Client Sample ID			0066_QC302_2 41112	0066_QC301_2 41114	0066_QC302_2 41114	0066_MW122D _151115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0047883	M24- No0047886	M24- No0047887	M24- No0047888
Date Sampled			Nov 12, 2024	Nov 14, 2024	Nov 14, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	-	-	-	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
13C4-PFBA (surr.)	1	%	-	-	-	86
13C5-PFPeA (surr.)	1	%	-	-	-	101
13C5-PFHxA (surr.)	1	%	-	-	-	94
13C4-PFHpA (surr.)	1	%	-	-	-	99
13C8-PFOA (surr.)	1	%	-	-	-	81
13C5-PFNA (surr.)	1	%	-	-	-	69
13C6-PFDA (surr.)	1	%	-	-	-	56
13C2-PFUnDA (surr.)	1	%	-	-	-	44
13C2-PFDoDA (surr.)	1	%	-	-	-	27
13C2-PFTeDA (surr.)	1	%	-	-	-	13
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	0.05	ug/L	-	-	-	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	0.05	ug/L	-	-	-	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
13C8-FOSA (surr.)	1	%	-	-	-	56
D3-N-MeFOSA (surr.)	1	%	-	-	-	15
D5-N-EtFOSA (surr.)	1	%	-	-	-	13
D7-N-MeFOSE (surr.)	1	%	-	-	-	24
D9-N-EtFOSE (surr.)	1	%	-	-	-	22
D5-N-EtFOSAA (surr.)	1	%	-	-	-	26
D3-N-MeFOSAA (surr.)	1	%	-	-	-	31
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	-	-	-	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	-	-	-	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	-	-	-	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	-	-	-	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	-	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	-	-	-	< 0.01
13C3-PFBS (surr.)	1	%	-	-	-	95
18O2-PFHxS (surr.)	1	%	-	-	-	80
13C8-PFOS (surr.)	1	%	-	-	-	69

Client Sample ID			0066_QC302_2_41112	0066_QC301_2_41114	0066_QC302_2_41114	0066_MW122D_151115
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047883	M24-No0047886	M24-No0047887	M24-No0047888
Date Sampled			Nov 12, 2024	Nov 14, 2024	Nov 14, 2024	Nov 15, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	-	-	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	-	-	-	< 0.01
13C2-4:2 FTSA (surr.)	1	%	-	-	-	83
13C2-6:2 FTSA (surr.)	1	%	-	-	-	66
13C2-8:2 FTSA (surr.)	1	%	-	-	-	49
13C2-10:2 FTSA (surr.)	1	%	-	-	-	27
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	-	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	-	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	-	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	-	-	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	-	-	-	< 0.1

Client Sample ID			0066_MW214S_241115	0066_QC103_2_41114	0066_QC104_2_41114	0066_QC105_2_41114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047889	M24-No0047890	M24-No0047891	M24-No0047892
Date Sampled			Nov 15, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	< 0.05	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	-	109	104	41
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	^{N09} 0.06	^{N09} 0.06	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	^{N09} 0.02	^{N09} 0.02	< 0.01
18O2-PFHxS (surr.)	1	%	-	100	94	28
13C8-PFOS (surr.)	1	%	-	110	108	27
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	^{N09} 0.02	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	-	56	95	34
Sum (PFHxS + PFOS)*	0.01	ug/L	-	0.08	0.08	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	0.04	0.02	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	0.1	0.08	< 0.01
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.04	-	-	-
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-

Client Sample ID			0066_MW214S_241115	0066_QC103_2_41114	0066_QC104_2_41114	0066_QC105_2_41114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047889	M24-No0047890	M24-No0047891	M24-No0047892
Date Sampled			Nov 15, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	-	-	-
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
13C4-PFBA (surr.)	1	%	61	-	-	-
13C5-PFPeA (surr.)	1	%	43	-	-	-
13C5-PFHxA (surr.)	1	%	59	-	-	-
13C4-PFHpA (surr.)	1	%	85	-	-	-
13C8-PFOA (surr.)	1	%	89	-	-	-
13C5-PFNA (surr.)	1	%	83	-	-	-
13C6-PFDA (surr.)	1	%	71	-	-	-
13C2-PFUnDA (surr.)	1	%	57	-	-	-
13C2-PFDoDA (surr.)	1	%	39	-	-	-
13C2-PFTeDA (surr.)	1	%	18	-	-	-
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	-	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
13C8-FOSA (surr.)	1	%	57	-	-	-
D3-N-MeFOSA (surr.)	1	%	15	-	-	-
D5-N-EtFOSA (surr.)	1	%	13	-	-	-
D7-N-MeFOSE (surr.)	1	%	32	-	-	-
D9-N-EtFOSE (surr.)	1	%	30	-	-	-
D5-N-EtFOSAA (surr.)	1	%	14	-	-	-
D3-N-MeFOSAA (surr.)	1	%	15	-	-	-
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.02	-	-	-
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	-	-	-
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	-	-	-
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.02	-	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	0.20	-	-	-
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	-	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	0.04	-	-	-
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	-	-	-
13C3-PFBS (surr.)	1	%	83	-	-	-
18O2-PFHxS (surr.)	1	%	92	-	-	-
13C8-PFOS (surr.)	1	%	87	-	-	-

Client Sample ID			0066_MW214S_241115	0066_QC103_2_41114	0066_QC104_2_41114	0066_QC105_2_41114
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0047889	M24-No0047890	M24-No0047891	M24-No0047892
Date Sampled			Nov 15, 2024	Nov 14, 2024	Nov 14, 2024	Nov 14, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
13C2-4:2 FTSA (surr.)	1	%	49	-	-	-
13C2-6:2 FTSA (surr.)	1	%	71	-	-	-
13C2-8:2 FTSA (surr.)	1	%	59	-	-	-
13C2-10:2 FTSA (surr.)	1	%	34	-	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.24	-	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.04	-	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.24	-	-	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.3	-	-	-
Sum of PFASs (n=30)*	0.1	ug/L	0.32	-	-	-

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
Per- and Polyfluoroalkyl Substances (PFASs) - Short - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 19, 2024	28 Days
Per- and Polyfluoroalkyl Substances (PFASs) Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 19, 2024	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 19, 2024	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 19, 2024	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 19, 2024	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 18, 2024	

Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24A

Project ID: 66022

Order No.: [REDACTED]

Report #: 1161464

Phone: [REDACTED]

Fax: [REDACTED]

Received: Nov 18, 2024 11:33 AM

Due: Nov 27, 2024

Priority: 7 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	0066_QC301_241113	Nov 14, 2024		Water	M24-No0047831				X
2	0066_QC302_241113	Nov 14, 2024		Water	M24-No0047832				X
3	0066_QC101_241114	Nov 14, 2024		Water	M24-No0047833			X	
4	0066_QC102_241114	Nov 14, 2024		Water	M24-No0047834			X	
5	0066_QC401_241114	Nov 14, 2024		Water	M24-No0047835				X
6	0066_MW206_241115	Nov 15, 2024		Water	M24-No0047836			X	
7	0066_MW204_241114	Nov 14, 2024		Water	M24-No0047837			X	
8	0066_MW210_241114	Nov 14, 2024		Water	M24-No0047838			X	
9	0066_MW218	Nov 14, 2024		Water	M24-No0047839			X	



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: JBS & G Australia (VIC) P/L
Address: [REDACTED]

Order No.:
Report #: 1161464
Phone: [REDACTED]
Fax: [REDACTED]

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [REDACTED]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
	241114								
10	0066_MW202_241115	Nov 15, 2024		Water	M24-No0047840			X	
11	0066_QC101_241115	Nov 15, 2024		Water	M24-No0047841			X	
12	0066_QC102_241115	Nov 15, 2024		Water	M24-No0047842			X	
13	0066_MW069_241114	Nov 14, 2024		Water	M24-No0047843			X	
14	0066_MW071_241114	Nov 14, 2024		Water	M24-No0047844			X	
15	0066_MW070_241114	Nov 14, 2024		Water	M24-No0047845			X	
16	0066_MW019_241114	Nov 14, 2024		Water	M24-No0047846			X	
17	0066_MW043_241114	Nov 14, 2024		Water	M24-No0047847			X	
18	0066_MW061_241114	Nov 14, 2024		Water	M24-No0047848			X	
19	0066_MW062	Nov 14, 2024		Water	M24-No0047849			X	



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[Redacted]

[Redacted]

[Redacted]

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.:
Report #: 1161464
Phone: [Redacted]
Fax: [Redacted]

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
19	0066_MW062_241114	Nov 14, 2024		Water	M24-No0047849				
20	0066_MW063_241114	Nov 14, 2024		Water	M24-No0047850			X	
21	0066_MW064_241114	Nov 14, 2024		Water	M24-No0047851			X	
22	0066_MW217D_241115	Nov 15, 2024		Water	M24-No0047852			X	
23	0066_MW046_241115	Nov 15, 2024		Water	M24-No0047853			X	
24	0066_MW047_241115	Nov 15, 2024		Water	M24-No0047854			X	
25	0066_MW033_241115	Nov 15, 2024		Water	M24-No0047855			X	
26	0066_MW054_241115	Nov 15, 2024		Water	M24-No0047856			X	
27	0066_MW207_241115	Nov 15, 2024		Water	M24-No0047857			X	
28	0066_MW003_241115	Nov 15, 2024		Water	M24-No0047858			X	



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ABN: 50 005 085 521

ABN: 91 05 0159 898

NZBN: 9429046024954

IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L
Address: PO Box 3166
Norwood
SA 5067

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Order No.:
Report #: 1161464
Phone:
Fax:

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name:

Eurofins Analytical Services Manager :

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
29	0066_MW208_241115	Nov 15, 2024		Water	M24-No0047859			X	
30	0066_MW209_241115	Nov 15, 2024		Water	M24-No0047860			X	
31	0066_MW109_241114	Nov 14, 2024		Water	M24-No0047861			X	
32	0066_QC501_241115	Nov 15, 2024		Water	M24-No0047862				X
33	0066_QC502_241115	Nov 15, 2024		Water	M24-No0047863				X
34	0066_QC503_241115	Nov 15, 2024		Water	M24-No0047864				X
35	0066_QC504_241115	Nov 15, 2024		Water	M24-No0047865				X
36	0066_QC301_241115	Nov 15, 2024		Water	M24-No0047866				X
37	0066_QC302_241115	Nov 15, 2024		Water	M24-No0047867				X
38	0066_QC401_241115	Nov 15, 2024		Water	M24-No0047868				X



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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
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ABN: 91 05 0159 898

Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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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
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Company Name: JBS & G Australia (VIC) P/L
Address: PO Box 3166
Norwood
SA 5067

Project Name: VIC_0066_PFASOMP_24A
Project ID: 66022

Order No.:
Report #: 1161464
Phone: 03 9642 0599
Fax:

Received: Nov 18, 2024 11:33 AM
Due: Nov 27, 2024
Priority: 7 Day
Contact Name:

Eurofins Analytical Services Manager :

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
39	0066_MW030_241115	Nov 15, 2024		Water	M24-No0047869			X	
40	0066_MW121_241115	Nov 15, 2024		Water	M24-No0047870			X	
41	0066_MW212_241115	Nov 15, 2024		Water	M24-No0047871			X	
42	0066_MW213_241115	Nov 15, 2024		Water	M24-No0047872			X	
43	0066_MW029_241115	Nov 15, 2024		Water	M24-No0047873			X	
44	0066_MW028_241115	Nov 15, 2024		Water	M24-No0047874			X	
45	0066_MW112_241115	Nov 15, 2024		Water	M24-No0047875			X	
46	0066_MW075_241115	Nov 15, 2024		Water	M24-No0047876			X	
47	0066_MW074_241115	Nov 15, 2024		Water	M24-No0047877			X	
48	0066_MW215_S_241115	Nov 15, 2024		Water	M24-No0047878			X	



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ABN: 91 05 0159 898

Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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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
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Company Name: JBS & G Australia (VIC) P/L
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Norwood
SA 5067

Project Name: VIC_0066_PFASOMP_24A
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Fax:

Received: Nov 18, 2024 11:33 AM
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Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
49	0066_MW215 D_241115	Nov 15, 2024		Water	M24-No0047879			X	
50	0066_QC301_241111	Nov 11, 2024		Water	M24-No0047880				X
51	0066_QC302_241111	Nov 11, 2024		Water	M24-No0047881				X
52	0066_QC301_241112	Nov 12, 2024		Water	M24-No0047882				X
53	0066_QC302_241112	Nov 12, 2024		Water	M24-No0047883				X
54	0066_QC301_241113	Nov 13, 2024		Water	M24-No0047884	X			
55	0066_QC302_241113	Nov 13, 2024		Water	M24-No0047885	X			
56	0066_QC301_241114	Nov 14, 2024		Water	M24-No0047886				X
57	0066_QC302_241114	Nov 14, 2024		Water	M24-No0047887				X
58	0066_MW122 D_151115	Nov 15, 2024		Water	M24-No0047888			X	



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Received: Nov 18, 2024 11:33 AM
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Priority: 7 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
59	0066_MW214_S_241115	Nov 15, 2024		Water	M24-No0047889			X	
60	0066_QC103_241114	Nov 14, 2024		Water	M24-No0047890				X
61	0066_QC104_241114	Nov 14, 2024		Water	M24-No0047891				X
62	0066_QC105_241114	Nov 14, 2024		Water	M24-No0047892				X
63	0066_QC103_241115	Nov 15, 2024		Water	M24-No0047893		X		
Test Counts						2	1	41	19

Internal Quality Control Review and Glossary

General

- 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.
- Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
- Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
- 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 (<i>bis</i> -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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
Sum (PFHxS + PFOS)*	ug/L	-			0.01	N/A	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	-			0.01	N/A	
Method Blank							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	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	< 0.01			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 (PFTriDA)	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							
Perfluoroalkyl sulfonic acids (PFSAAs)							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	< 0.01			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							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	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	< 0.01			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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	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	< 0.01			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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	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	< 0.01			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							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	< 0.01			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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCA's)							
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	< 0.01			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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	92			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	92			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	90			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	88			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	87			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	104			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	100			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	96			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	89			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	100			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	94			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	86			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	60			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	88			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	101			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	92			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	97			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	98			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	90			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	85			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	93			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	87			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	120			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	96			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	107			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	62			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 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)	%	88			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	94			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	86			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	82			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	87			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	86			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	94			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	99			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	96			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	84			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	91			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	87			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	82			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	103			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	88			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	99			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	85			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	102			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	101			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	86			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	94			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	82			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	110			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	92			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	105			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	57			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	95			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	84			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	91			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	90			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	86			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	90			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	87			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropentanoic acid (PFPeA)	%	97			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	100			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	98			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	90			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	99			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	89			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	88			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	66			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	84			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	99			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	89			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	98			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	86			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	87			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	89			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	93			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	94			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	86			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	123			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	93			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	101			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	62			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	87			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	91			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	85			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	80			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	86			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	80			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	79			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	87			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	90			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	87			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	81			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	84			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	81			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	76			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	80			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	78			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	88			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	73			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	88			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	82			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	80			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	85			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	82			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	84			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	81			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	107			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	98			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	54			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	78			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	77			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	127			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	111			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	108			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	127			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	101			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	101			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	117			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	119			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	121			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	126			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	128			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	114			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	108			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	116			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	120			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	114			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	119			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	105			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	98			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	100			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	117			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	94			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	111			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	92			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	94			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	108			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	88			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	110			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)	%	107			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	87			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	80			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	84			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	80			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	78			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	87			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	92			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	79			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	85			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	78			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	77			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	76			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	73			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	88			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	82			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	82			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	91			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	83			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	86			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	75			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	83			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	76			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	105			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	87			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	101			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	53			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	78			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)	%	81			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	113			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	75			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	77			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	73			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	77			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropentanoic acid (PFPeA)			%	73			50-150	Pass	
Perfluorohexanoic acid (PFHxA)			%	73			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)			%	73			50-150	Pass	
Perfluorononanoic acid (PFNA)			%	77			50-150	Pass	
Perfluorodecanoic acid (PFDA)			%	79			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)			%	78			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)			%	75			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)			%	54			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)			%	83			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)			%	80			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)			%	99			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)			%	69			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)			%	69			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)			%	83			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)			%	76			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)			%	86			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)									
Perfluorobutanesulfonic acid (PFBS)			%	73			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)			%	72			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	77			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	78			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	74			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	61			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	73			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	74			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	77			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Per- and Polyfluoroalkyl Substances (PFASs) - Short				Result 1					
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0047832	CP	%	71			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0047832	CP	%	72			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-No0047832	CP	%	70			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0047832	CP	%	80			50-150	Pass	
Spike - % Recovery									
Per- and Polyfluoroalkyl Substances (PFASs) - Short				Result 1					
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0047837	CP	%	84			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0047837	CP	%	85			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-No0047837	CP	%	80			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0047837	CP	%	83			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0047837	CP	%	81			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0047837	CP	%	107			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanoic acid (PFHxA)	M24-No0047837	CP	%	93			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0047837	CP	%	92			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0047837	CP	%	84			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0047837	CP	%	94			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0047837	CP	%	88			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0047837	CP	%	81			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0047837	CP	%	73			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0047837	CP	%	85			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M24-No0047837	CP	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0047837	CP	%	94			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0047837	CP	%	98			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0047837	CP	%	99			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0047837	CP	%	72			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0047837	CP	%	87			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0047837	CP	%	89			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0047837	CP	%	86			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0047837	CP	%	74			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0047837	CP	%	96			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0047837	CP	%	90			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0047837	CP	%	98			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M24-No0047837	CP	%	51			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0047837	CP	%	92			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0047837	CP	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0047837	CP	%	81			50-150	Pass	
Spike - % Recovery									
Per- and Polyfluoroalkyl Substances (PFAS's) - Short				Result 1					
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0047874	CP	%	83			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0047874	CP	%	79			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorohexanoic acid (PFHxA)	M24-No0047874	CP	%	79			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroheptanoic acid (PFHpA)	M24-No0047874	CP	%	85			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0047874	CP	%	81			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0047874	CP	%	92			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0047874	CP	%	83			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0047874	CP	%	76			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0047874	CP	%	53			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0047874	CP	%	81			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M24-No0047874	CP	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0047874	CP	%	85			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0047874	CP	%	85			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0047874	CP	%	93			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0047874	CP	%	86			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0047874	CP	%	83			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0047874	CP	%	79			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0047874	CP	%	75			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0047874	CP	%	62			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0047874	CP	%	81			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0047874	CP	%	72			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0047874	CP	%	67			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0047874	CP	%	75			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0047874	CP	%	88			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0047874	CP	%	78			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Per- and Polyfluoroalkyl Substances (PFAS's) - Short				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0047831	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0047831	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-No0047831	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0047831	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Per- and Polyfluoroalkyl Substances (PFASs) - Short				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0047836	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0047836	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Per- and Polyfluoroalkyl Substances (PFASs) - Short				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M24-No0047873	CP	ug/L	0.09	0.09	1.0	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M24-No0047873	CP	ug/L	0.03	0.03	11	30%	Pass
Perfluorooctanoic acid (PFOA)	M24-No0047873	CP	ug/L	0.01	0.01	6.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M24-No0047873	CP	ug/L	0.05	0.05	1.0	30%	Pass
Perfluorohexanoic acid (PFHxA)	M24-No0047873	CP	ug/L	0.07	0.07	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M24-No0047873	CP	ug/L	0.01	0.01	4.0	30%	Pass
Perfluorononanoic acid (PFNA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0047873	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M24-No0047873	CP	ug/L	0.02	0.02	3.0	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0047873	CP	ug/L	0.01	0.02	58	30%	Fail
Perfluoropentanesulfonic acid (PFPeS)	M24-No0047873	CP	ug/L	0.02	0.02	8.0	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0047873	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments

Report 1161464-W-V2 (amendment to report 1161464-W) has been issued with Samples being changed from PFAS Trace Level to PFAS Standard level as per client request.

Sample Integrity

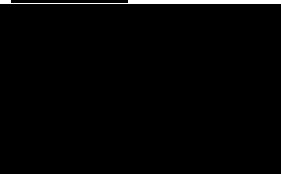
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	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).
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

	Analytical Services Manager
	Senior Analyst-PFAS
	Senior Analyst-PFAS



Managing Director

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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 DOCUMENTATION

JBS&G (Australia) Pty Ltd

Melbourne

Level 19, 31 Queen Street, Melbourne VIC 3000

T: 03 9642 0599

ACN 100 220 479 • ABN 62 100 220 479



CLIENT: JBS&G

SITE/PROJECT NAME: VIC_0066_PFASOMP_24a

SEND REPORT TO: JBS&G Australia Pty Ltd

DATA NEEDED BY: standard

SITE/PROJECT NUMBER: 66022

LABORATORY:

COC Reference #: NA

SEND INVOICE TO: JBS&G Australia Pty Ltd

REPORT NEEDED BY: standard

QUOTE #:

LABORATORY BATCH NO.:

SAMPLERS:

PHONE: 03 9642 0599

REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES

RELINQUISHED BY:

OF: JBS&G (Australia) Pty Ltd

NAME:

OF:

TIME: 20/11/24

DATE:

TIME:

RECEIVED BY

NAME:

OF:

DATE:

TIME:

METHOD OF SHIPMENT: Courier

CONSIGNMENT NOTE NO.

TRANSPORT CO. NAME.

P.O. NO.:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to Envirolab (highlighted purple) for analysis.

ANALYSIS TO COME VIA EMAIL

FOR LAB USE ONLY

COOLER SEAL

Yes No

Broken Intact

COOLER TEMP: deg.C

SAMPLE DATA

CONTAINER DATA

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field
0066_QC302_241119	WATER	19/11/2024		2 X 250ML PFAS		
0066_QC102_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC104_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC105_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC202_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC204_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC205_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW122S_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW067_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW018_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW117_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW051_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW017_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW034_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW068_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW041_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW110_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW102_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC502_241119	WATER	19/11/2024		2 X 250ML PFAS		
0066_QC402_241119	WATER	15/19/2024		2 X 250ML PFAS		
0066_QC301_241111	WATER	11/11/2024		2 X 250ML PFAS		
0066_QC302_241111	WATER	11/11/2024		2 X 250ML PFAS		
0066_QC301_241112	WATER	12/11/2024		2 X 250ML PFAS		
0066_QC302_241112	WATER	12/11/2024		2 X 250ML PFAS		
0066_QC301_241113	WATER	13/11/2024		2 X 250ML PFAS		
0066_QC302_241113	WATER	13/11/2024		2 X 250ML PFAS		

PFASfullILL - PFASfullILL : Per- and Polyfluoroalkyl Substances (PFAS) - Trace

PFAS Short Suite Standard

HOLD

15 9 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

*Container Type and Preservative Codes:

P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST =Sodium Thiosuplhate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

Forward to envirolab for analysis

Forward to envirolab for analysis

Forward to envirolab for analysis

DATE: 17/29 20/11/24

TIME: 15:20C

COURIER: YES

TEMPERATURE: YES

ATTEMPT TO CHILL: YES

Sample Receipt Advice

Company name: JBS & G Australia (VIC) P/L
Contact name: [REDACTED]
Project name: VIC_0066_PFASOMP_24a
Project ID: 66022
Turnaround time: 5 Day
Date/Time received: Nov 20, 2024 5:29 PM
Eurofins reference: 1162531

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 : 15.7 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.
- ✗ Split sample sent to requested external lab.
- ✗ 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]

Results will be delivered electronically via email to [REDACTED]

Note: A copy of these results will also be delivered to the general JBS & G Australia (VIC) P/L email address.



web: www.eurofins.com.au
email: EnviroSales@eurofins.com

ABN: 50 005 085 521

ABN: 91 05 0159 898

NZBN: 9429046024954

Company Name: JBS & G Australia (VIC) P/L
Address: PO Box 3166
Norwood
SA 5067

Project Name: VIC_0066_PFASOMP_24a
Project ID: 66022

Order No.:
Report #: 1162531
Phone: 03 9642 0599
Fax:

Received: Nov 20, 2024 5:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name:

Eurofins Analytical Services Manager :

Sample Detail						HOLD*	Per- and Polyfluoroalkyl Substances (PFASs) - Short	Per- and Polyfluoroalkyl Substances (PFASs) - Trace
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
External Laboratory								
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID			
1	0066_QC302_241119	Nov 19, 2024		Water	M24-No0056364		X	
2	0066_QC102_241119	Nov 19, 2024		Water	M24-No0056365			X
3	0066_QC104_241119	Nov 19, 2024		Water	M24-No0056366			X
4	0066_MW122 S_241119	Nov 19, 2024		Water	M24-No0056367			X
5	0066_MW067_241119	Nov 19, 2024		Water	M24-No0056368			X
6	0066_MW018_241119	Nov 19, 2024		Water	M24-No0056369			X
7	0066_MW117_241119	Nov 19, 2024		Water	M24-No0056370			X
8	0066_MW051_241119	Nov 19, 2024		Water	M24-No0056371			X
9	0066_MW017	Nov 19, 2024		Water	M24-No0056372			X



web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name: JBS & G Australia (VIC) P/L
Address: PO Box 3166
Norwood
SA 5067

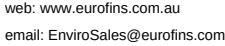
Project Name: VIC_0066_PFASOMP_24a
Project ID: 66022

Order No.:
Report #: 1162531
Phone: 03 9642 0599
Fax:

Received: Nov 20, 2024 5:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name:

Eurofins Analytical Services Manager :

Sample Detail						HOLD*	Per- and Polyfluoroalkyl Substances (PFASs) - Short	Per- and Polyfluoroalkyl Substances (PFASs) - Trace
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
	241119							
10	0066_MW034_241119	Nov 19, 2024		Water	M24-No0056373			X
11	0066_MW068_241119	Nov 19, 2024		Water	M24-No0056374			X
12	0066_MW041_241119	Nov 19, 2024		Water	M24-No0056375			X
13	0066_MW110_241119	Nov 19, 2024		Water	M24-No0056376			X
14	0066_MW102_241119	Nov 19, 2024		Water	M24-No0056377			X
15	0066_QC502_241119	Nov 19, 2024		Water	M24-No0056378		X	
16	0066_QC402_241119	Nov 19, 2024		Water	M24-No0056379		X	
17	0066_QC301_241111	Nov 19, 2024		Water	M24-No0056380		X	
18	0066_QC302_241111	Nov 19, 2024		Water	M24-No0056381		X	
19	0066_QC301_	Nov 19, 2024		Water	M24-No0056382		X	



ABN: 50 005 085 521

ABN: 91 05 0159 898

NZBN: 9429046024954

Received: Nov 20, 2024 5:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager ██████████

Sample Detail						HOLD*	Per- and Polyfluoroalkyl Substances (PFASs) - Short	Per- and Polyfluoroalkyl Substances (PFASs) - Trace
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
19	0066_QC301_241112	Nov 19, 2024		Water	M24-No0056382			
20	0066_QC302_241112	Nov 19, 2024		Water	M24-No0056383		X	
21	0066_QC301_241113	Nov 19, 2024		Water	M24-No0056384		X	
22	0066_QC302_241113	Nov 19, 2024		Water	M24-No0056385		X	
23	0066_QC105_241119	Nov 19, 2024		Water	M24-No0056386	X		
Test Counts						1	9	13

JBS & G Australia (VIC) P/L
PO Box 3166
Norwood
SA 5067



NATA Accredited
Accreditation Number 1261
Site Number 1254

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:

Report 1162531-W-V2
Project name VIC_0066_PFASOMP_24a
Project ID 66022
Received Date Nov 20, 2024

Client Sample ID			0066_QC302_2 41119	0066_QC102_2 41119	0066_QC104_2 41119	0066_MW122S 241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056364	M24- No0056365	M24- No0056366	M24- No0056367
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	-	-	-
13C2-6:2 FTSA (surr.)	1	%	130	-	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	-	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	-	-	-
18O2-PFHxS (surr.)	1	%	90	-	-	-
13C8-PFOS (surr.)	1	%	80	-	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	-	-	-
13C8-PFOA (surr.)	1	%	89	-	-	-
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	-	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	-	0.69	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	-	1.7	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	-	13	0.02	0.02
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	1.2	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	2.6	< 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 (PFTeDA) ^{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	%	-	101	71	31
13C5-PFPeA (surr.)	1	%	-	103	114	81
13C5-PFHxA (surr.)	1	%	-	98	134	107
13C4-PFHpA (surr.)	1	%	-	107	136	121
13C8-PFOA (surr.)	1	%	-	89	117	100
13C5-PFNA (surr.)	1	%	-	97	112	84
13C6-PFDA (surr.)	1	%	-	60	91	61
13C2-PFUnDA (surr.)	1	%	-	60	66	38
13C2-PFDoDA (surr.)	1	%	-	69	59	40
13C2-PFTeDA (surr.)	1	%	-	154	84	71

Client Sample ID			0066_QC302_2 41119	0066_QC102_2 41119	0066_QC104_2 41119	0066_MW122S 241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056364	M24- No0056365	M24- No0056366	M24- No0056367
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
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	%	-	111	111	72
D3-N-MeFOSA (surr.)	1	%	-	77	110	47
D5-N-EtFOSA (surr.)	1	%	-	108	53	55
D7-N-MeFOSE (surr.)	1	%	-	104	144	48
D9-N-EtFOSE (surr.)	1	%	-	109	143	46
D5-N-EtFOSAA (surr.)	1	%	-	61	63	38
D3-N-MeFOSAA (surr.)	1	%	-	72	75	51
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	-	2.3	0.02	0.03
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	-	0.83	< 0.01	0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	-	3.7	0.01	0.03
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	83	0.07	0.33
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	-	0.60	< 0.01	0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	2.5	0.08	0.32
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	-	109	118	116
18O2-PFHxS (surr.)	1	%	-	88	113	84
13C8-PFOS (surr.)	1	%	-	106	99	58
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	-	66	110	99
13C2-6:2 FTSA (surr.)	1	%	-	87	104	92
13C2-8:2 FTSA (surr.)	1	%	-	75	81	60
13C2-10:2 FTSA (surr.)	1	%	-	67	68	43
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	-	85.5	0.15	0.65
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	5.1	0.08	0.32
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	88.1	0.15	0.65
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	106.99	0.19	0.7
Sum of PFASs (n=30)*	0.1	ug/L	-	112.12	0.2	0.75

Client Sample ID			0066_MW067_241119	0066_MW018_241119	0066_MW117_241119	0066_MW051_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056368	M24-No0056369	M24-No0056370	M24-No0056371
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	0.54	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	1.9	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	11	< 0.01	< 0.01	0.03
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.99	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	2.0	< 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	%	97	93	94	106
13C5-PFPeA (surr.)	1	%	102	118	129	108
13C5-PFHxA (surr.)	1	%	97	128	123	104
13C4-PFHpA (surr.)	1	%	106	131	119	109
13C8-PFOA (surr.)	1	%	90	106	100	93
13C5-PFNA (surr.)	1	%	92	92	88	111
13C6-PFDA (surr.)	1	%	60	77	76	89
13C2-PFUnDA (surr.)	1	%	62	48	47	55
13C2-PFDoDA (surr.)	1	%	69	40	38	60
13C2-PFTeDA (surr.)	1	%	142	65	47	77
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	88	91	90
D3-N-MeFOSA (surr.)	1	%	111	40	114	22
D5-N-EtFOSA (surr.)	1	%	98	48	79	22
D7-N-MeFOSE (surr.)	1	%	146	107	137	81
D9-N-EtFOSE (surr.)	1	%	131	92	142	96
D5-N-EtFOSAA (surr.)	1	%	66	45	50	59
D3-N-MeFOSAA (surr.)	1	%	75	57	61	66
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	1.8	0.01	< 0.01	0.02
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.64	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	2.9	0.02	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	50	0.13	< 0.01	0.07
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.44	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	1.9	0.02	< 0.01	0.05
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_MW067_241119	0066_MW018_241119	0066_MW117_241119	0066_MW051_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056368	M24-No0056369	M24-No0056370	M24-No0056371
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	109	120	112	118
18O2-PFHxS (surr.)	1	%	97	104	103	100
13C8-PFOS (surr.)	1	%	112	81	86	102
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	61	115	102	127
13C2-6:2 FTSA (surr.)	1	%	85	97	92	107
13C2-8:2 FTSA (surr.)	1	%	76	81	70	76
13C2-10:2 FTSA (surr.)	1	%	72	46	43	60
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	51.9	0.15	< 0.01	0.12
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	3.9	0.02	< 0.01	0.05
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	53.9	0.15	< 0.01	0.12
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	70.13	0.16	< 0.05	0.17
Sum of PFASs (n=30)*	0.1	ug/L	74.11	0.18	< 0.1	0.17

Client Sample ID			0066_MW017_241119	0066_MW034_241119	0066_MW068_241119	0066_MW041_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056372	M24-No0056373	M24-No0056374	M24-No0056375
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCA)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	0.14	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.16	< 0.01	0.03	0.04
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.45	< 0.01	0.05	0.04
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.12	< 0.01	0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	0.31	< 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 (PFTTrDA) ^{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	%	69	35	106	103
13C5-PFPeA (surr.)	1	%	85	88	53	111
13C5-PFHxA (surr.)	1	%	99	119	74	110
13C4-PFHpA (surr.)	1	%	107	126	96	100
13C8-PFOA (surr.)	1	%	93	106	92	85
13C5-PFNA (surr.)	1	%	96	88	82	122
13C6-PFDA (surr.)	1	%	71	66	68	82

Client Sample ID			0066_MW017_241119	0066_MW034_241119	0066_MW068_241119	0066_MW041_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056372	M24-No0056373	M24-No0056374	M24-No0056375
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C2-PFUnDA (surr.)	1	%	57	40	56	98
13C2-PFDoDA (surr.)	1	%	56	37	57	150
13C2-PFTeDA (surr.)	1	%	73	61	156	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	%	71	102	86	184
D3-N-MeFOSA (surr.)	1	%	99	47	108	15
D5-N-EtFOSA (surr.)	1	%	12	33	102	11
D7-N-MeFOSE (surr.)	1	%	62	78	105	48
D9-N-EtFOSE (surr.)	1	%	68	77	132	32
D5-N-EtFOSAA (surr.)	1	%	57	37	54	44
D3-N-MeFOSAA (surr.)	1	%	71	47	62	53
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.29	< 0.01	0.02	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	0.16	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.29	< 0.01	0.03	0.02
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	6.2	< 0.01	0.14	0.37
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.15	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	1.2	< 0.01	0.09	0.03
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	107	114	108	101
18O2-PFHxS (surr.)	1	%	102	105	101	88
13C8-PFOS (surr.)	1	%	113	76	78	97
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	141	106	82	86
13C2-6:2 FTSA (surr.)	1	%	102	93	80	93
13C2-8:2 FTSA (surr.)	1	%	78	58	66	79
13C2-10:2 FTSA (surr.)	1	%	59	40	61	103

Client Sample ID			0066_MW017_241119	0066_MW034_241119	0066_MW068_241119	0066_MW041_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056372	M24-No0056373	M24-No0056374	M24-No0056375
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	7.4	< 0.01	0.23	0.4
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	1.51	< 0.01	0.09	0.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	7.71	< 0.01	0.23	0.41
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	8.87	< 0.05	0.34	0.5
Sum of PFASs (n=30)*	0.1	ug/L	9.47	< 0.1	0.37	0.52

Client Sample ID			0066_MW110_241119	0066_MW102_241119	0066_QC502_241119	0066_QC402_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056376	M24-No0056377	M24-No0056378	M24-No0056379
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	-	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	-	-	135	132
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
18O2-PFHxS (surr.)	1	%	-	-	95	93
13C8-PFOS (surr.)	1	%	-	-	85	84
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	-	-	93	90
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	-	-
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	0.02	-	-
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 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 (PFTTrDA) ^{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	%	62	76	-	-
13C5-PFPeA (surr.)	1	%	79	119	-	-
13C5-PFHxA (surr.)	1	%	114	143	-	-
13C4-PFHpA (surr.)	1	%	110	132	-	-
13C8-PFOA (surr.)	1	%	107	121	-	-
13C5-PFNA (surr.)	1	%	113	121	-	-
13C6-PFDA (surr.)	1	%	98	96	-	-
13C2-PFUnDA (surr.)	1	%	77	72	-	-
13C2-PFDoDA (surr.)	1	%	98	78	-	-
13C2-PFTeDA (surr.)	1	%	199	177	-	-

Client Sample ID			0066_MW110_241119	0066_MW102_241119	0066_QC502_241119	0066_QC402_241119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056376	M24-No0056377	M24-No0056378	M24-No0056379
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
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	%	119	157	-	-
D3-N-MeFOSA (surr.)	1	%	115	143	-	-
D5-N-EtFOSA (surr.)	1	%	74	86	-	-
D7-N-MeFOSE (surr.)	1	%	169	162	-	-
D9-N-EtFOSE (surr.)	1	%	155	164	-	-
D5-N-EtFOSAA (surr.)	1	%	75	68	-	-
D3-N-MeFOSAA (surr.)	1	%	83	77	-	-
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	0.01	-	-
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	0.02	0.08	-	-
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	0.03	0.36	-	-
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	-	-
13C3-PFBS (surr.)	1	%	124	131	-	-
18O2-PFHxS (surr.)	1	%	114	122	-	-
13C8-PFOS (surr.)	1	%	100	73	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	112	131	-	-
13C2-6:2 FTSA (surr.)	1	%	102	115	-	-
13C2-8:2 FTSA (surr.)	1	%	90	83	-	-
13C2-10:2 FTSA (surr.)	1	%	84	67	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.05	0.44	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.03	0.38	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.05	0.46	-	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.05	0.47	-	-
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	0.47	-	-

Client Sample ID			0066_QC301_2_41111	0066_QC302_2_41111	0066_QC301_2_41112	0066_QC302_2_41112
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056380	M24-No0056381	M24-No0056382	M24-No0056383
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	83	67	140	60
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	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
18O2-PFHxS (surr.)	1	%	86	65	94	58
13C8-PFOS (surr.)	1	%	80	63	82	56
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	95	72	95	61
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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

Client Sample ID			0066_QC301_2_41113	0066_QC302_2_41113
Sample Matrix			Water	Water
Eurofins Sample No.			M24-No0056384	M24-No0056385
Date Sampled			Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit		
Per- and Polyfluoroalkyl Substances (PFASs) - Short				
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	80	124
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
18O2-PFHxS (surr.)	1	%	78	85
13C8-PFOS (surr.)	1	%	76	78
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	97	86
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01

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
Per- and Polyfluoroalkyl Substances (PFASs) - Short - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 26, 2024	28 Days
Per- and Polyfluoroalkyl Substances (PFASs) Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 26, 2024	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 26, 2024	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 26, 2024	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 26, 2024	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	Nov 26, 2024	



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IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24a

Project ID: 66022

Order No.:

Report #: 1162531

Phone: [REDACTED]

Fax:

Received: Nov 20, 2024 5:29 PM

Due: Nov 27, 2024

Priority: 5 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						HOLD*	Per- and Polyfluoroalkyl Substances (PFASs) - Short	Per- and Polyfluoroalkyl Substances (PFASs) - Trace
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
	241119							
10	0066_MW034_241119	Nov 19, 2024		Water	M24-No0056373			X
11	0066_MW068_241119	Nov 19, 2024		Water	M24-No0056374			X
12	0066_MW041_241119	Nov 19, 2024		Water	M24-No0056375			X
13	0066_MW110_241119	Nov 19, 2024		Water	M24-No0056376			X
14	0066_MW102_241119	Nov 19, 2024		Water	M24-No0056377			X
15	0066_QC502_241119	Nov 19, 2024		Water	M24-No0056378		X	
16	0066_QC402_241119	Nov 19, 2024		Water	M24-No0056379		X	
17	0066_QC301_241111	Nov 19, 2024		Water	M24-No0056380		X	
18	0066_QC302_241111	Nov 19, 2024		Water	M24-No0056381		X	
19	0066_QC301_	Nov 19, 2024		Water	M24-No0056382		X	



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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24a

Project ID: 66022

Order No.: [REDACTED]

Report #: 1162531

Phone: [REDACTED]

Fax: [REDACTED]

Received: Nov 20, 2024 5:29 PM

Due: Nov 27, 2024

Priority: 5 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						HOLD*	Per- and Polyfluoroalkyl Substances (PFASs) - Short	Per- and Polyfluoroalkyl Substances (PFASs) - Trace
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
19	0066_QC301_241112	Nov 19, 2024		Water	M24-No0056382			
20	0066_QC302_241112	Nov 19, 2024		Water	M24-No0056383		X	
21	0066_QC301_241113	Nov 19, 2024		Water	M24-No0056384		X	
22	0066_QC302_241113	Nov 19, 2024		Water	M24-No0056385		X	
23	0066_QC105_241119	Nov 19, 2024		Water	M24-No0056386	X		
Test Counts						1	9	13

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 (<i>bis</i> -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							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	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	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Per- and Polyfluoroalkyl Substances (PFASs) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	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	< 0.01			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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	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							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
Sum (PFHxS + PFOS)*	ug/L	-			0.01	N/A	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	-			0.01	N/A	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	76			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	82			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	78			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	79			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
Perfluorohexanesulfonic acid (PFHxS)	%	88			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	89			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	87			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	88			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	84			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	88			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	86			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	110			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	82			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	91			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	81			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	96			50-150	Pass	
LCS - % Recovery							
Per- and Polyfluoroalkyl Substances (PFAS's) - Short							
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	91			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	89			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	92			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	85			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	89			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropentanoic acid (PFPeA)			%	84			50-150	Pass	
Perfluorohexanoic acid (PFHxA)			%	88			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)			%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)			%	87			50-150	Pass	
Perfluorodecanoic acid (PFDA)			%	88			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)			%	85			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)			%	91			50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)			%	51			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)			%	93			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)			%	82			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)			%	95			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)			%	117			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)			%	79			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)			%	98			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)			%	82			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)			%	89			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)									
Perfluorobutanesulfonic acid (PFBS)			%	83			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)			%	83			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	90			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	84			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	94			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	68			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	83			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	89			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	90			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Per- and Polyfluoroalkyl Substances (PFASs) - Short				Result 1					
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056372	CP	%	84			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0056372	CP	%	81			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056372	CP	%	101			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056372	CP	%	90			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056372	CP	%	87			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056372	CP	%	83			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056372	CP	%	84			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056372	CP	%	88			50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M24-No0056372	CP	%	54			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056372	CP	%	95			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctane sulfonamide (FOSA)	M24-No0056372	CP	%	86			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056372	CP	%	79			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056372	CP	%	95			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056372	CP	%	96			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056372	CP	%	88			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056372	CP	%	75			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorononanesulfonic acid (PFNS)	M24-No0056372	CP	%	89			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M24-No0056372	CP	%	65			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056372	CP	%	73			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056372	CP	%	88			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056372	CP	%	95			50-150	Pass	
Spike - % Recovery									
Per- and Polyfluoroalkyl Substances (PFAS's) - Short				Result 1					
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056382	CP	%	74			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056382	CP	%	78			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-No0056382	CP	%	82			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0056382	CP	%	80			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0056382	CP	%	78			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056382	CP	%	74			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-No0056382	CP	%	76			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056382	CP	%	79			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056382	CP	%	77			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056382	CP	%	79			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056382	CP	%	84			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056382	CP	%	80			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056382	CP	%	63			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056382	CP	%	84			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M24-No0056382	CP	%	86			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056382	CP	%	89			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056382	CP	%	69			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056382	CP	%	83			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056382	CP	%	73			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056382	CP	%	82			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0056382	CP	%	82			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0056382	CP	%	91			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056382	CP	%	81			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056382	CP	%	85			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056382	CP	%	88			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M24-No0056382	CP	%	81			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056382	CP	%	78			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056382	CP	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056382	CP	%	82			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Per- and Polyfluoroalkyl Substances (PFASs) - Short				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorononanoic acid (PFNA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056371	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorononanesulfonic acid (PFNS)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056371	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Per- and Polyfluoroalkyl Substances (PFAS's) - Short				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056381	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M24-No0056381	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056381	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056381	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056381	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments

Report 1162531-W-V2 (amendment to report 1162531-W) has been issued with Samples being changed from PFAS Trace Level to PFAS Standard level as per client request.

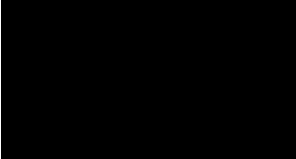
Sample Integrity

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
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:

	Analytical Services Manager
	Senior Analyst-PFAS
	Senior Analyst-PFAS
	

Managing Director

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd



CLIENT: JBS&G		LABORATORY:		LABORATORY BATCH NO.			
SITE/PROJECT NAME: VIC_0066_PFA50MP_24a		COC Reference #: NA		SAMPLERS			
SEND REPORT TO: JBS&G Australia Pty Ltd		SEND INVOICE TO: JBS&G Australia Pty Ltd		PHONE: 03 9642 0595			
DATA NEEDED BY: standard		REPORT NEEDED BY: standard		REPORT FORMAT: HARD NO FAX: NO E-MAIL: YES			
SITE/PROJECT NUMBER: 66022		QUOTE #:					
RELINQUISHED BY:				RECEIVED BY			
CO		TIME:		NAME			
OF: JBS&G (Australia) Pty Ltd		DATE: 20/11/24		DATE:			
NAME:		TIME:		TIME:			
OF:		DATE:		NAME :			
				DATE:			
				TIME:			
P.O. NO.:		COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to EnviroLab (highlighted purple) for analysis.		ANALYSIS REQUIRED			
FOR LAB USE ONLY		PFAS1011 - PFAS1011: Per- and Polyfluoroalkyl Substances (PFAS) - Trace PFAS Short Suite Standard		HOLD		20/11/24 #1162570	
COOLER SEAL							
Yes No							
Broken Intact							
COOLER TEMP: deg.C		ANALYSIS TO COME VIA EMAIL: [REDACTED]					
SAMPLE DATA		CONTAINER DATA					
SAMPLE ID		MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field
0066_SW016_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW017_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW015_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW014_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW057_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW023_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW024_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW022_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW021_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW072_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW074_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW073_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW090_241119		Water	19/11/2024		1 x 500ml PFAS		X
0066_SW003_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW071_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW019_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW027_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW029_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW030_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW028_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW004_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW001_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW002_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW005_241118		Water	18/11/2024		1 x 500ml PFAS		X
0066_SW006_241118		Water	18/11/2024		1 x 500ml PFAS		X

*Container Type and Preservative Codes:
P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST = Sodium Thiosulphate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

DATE: 15/29 20/11/24
TIME: 8:40
TEMPERATURE: YES
ANALYST: CH

CHAIN OF CUSTODY DOCUMENTATION **JBS&G (Australia) Pty Ltd**

JBS&G (Australia) Pty Ltd

[illegible]

CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd



CLIENT: JBS&G		LABORATORY:		LABORATORY BATCH NO.:	
SITE/PROJECT NAME: VIC_0066_PFASOMP_24a		COC Reference #: NA		SAMPLERS:	
SEND REPORT TO: JBS&G Australia Pty Ltd		SEND INVOICE TO: JBS&G Australia Pty Ltd		PHONE: 03 9642 0599	
DATA NEEDED BY: standard		REPORT NEEDED BY: standard		REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES	
SITE/PROJECT NUMBER: 66022		NOTE #:			
RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT: Courier	
CO		TIME:		NAME :	
OF: JBS&G (Australia) Pty Ltd		DATE: 20/11/24		DATE:	
NAME:		TIME:		NAME :	
OF:		DATE:		DATE:	
P.O. NO.:		COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to Envirolab (highlighted purple) for analysis.:-		ANALYSIS REQUIRED	
FOR LAB USE ONLY COOLER SEAL					
Yes No					
Broken Intact					
COOLER TEMP: deg.C		ANALYSIS TO COME VIA EMAIL			
SAMPLE DATA		CONTAINER DATA			
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.
0066_SW007_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW078_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW077_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW018_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW020_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW009_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW076_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW010_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_SW075_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC101_241119	Water	19/11/2024		1 x 500ml PFAS	
0066_QC201_241119	Water	19/11/2024		1 x 500ml PFAS	
0066_QC103_241119	Water	19/11/2024		1 x 500ml PFAS	
0066_QC203_241119	Water	19/11/2024		1 x 500ml PFAS	
0066_QC301_241119	Water	19/11/2024		2 X 250ml PFAS	
0066_QC401_241119	Water	19/11/2024		2 X 250ml PFAS	
0066_QC501_241119	Water	19/11/2024		2 X 250ml PFAS	
0066_QC101_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC201_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC102_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC202_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC103_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC203_241118	Water	18/11/2024		1 x 500ml PFAS	
0066_QC301_241118	Water	18/11/2024		2 X 250ml PFAS	
0066_QC401_241118	Water	18/11/2024		2 X 250ml PFAS	
0066_QC501_241118	Water	18/11/2024		2 X 250ml PFAS	

PFAS/ILL - PFAS/ILL : Per- and Polyfluoroalkyl Substances (PFAS) - Trace
PFAS Short Suite Standard

HOLD

*Container Type and Preservative Codes:
P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST = Sodium Thiosulphate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

Forward to envirolab for analysis

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From: [REDACTED]

Sent: Wednesday, 27 November 2024 2:45 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Eurofins Sample Receipt Advice - Report 1162570 : Site VIC_0066_PFASOMP_24a (66022)

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 [REDACTED]

Sorry to do this again, but I need to rectify some samples for the attached SRA, see below correspondence in relation to the two missing samples, I have pasted the summary and requirements below to fix this COC/SRA

Issues:

- There should be no 0066_SW021_241119 – this was not sampled due to no water, I accidentally put the sample id on the coc, this sample id can be removed
- There should be no 0066_SW072_241119 also due to a lack of water **BUT** there should be a 0066_SW022_241119, its my assumption that the sample for 0066_SW072_241119 is 0066_SW022_241119”

To summarise

- Please remove 0066_SW021_241119 from COC and SRA
- Please reassign the samples for 0066_SW072_241119 as 0066_SW022_241119
- Then remove the 0066_SW072_241119 from COC and SRA (this sample ID will now have no bottles allocated to its ID)

[REDACTED]						[REDACTED]		[REDACTED]			
[REDACTED]						[REDACTED]		[REDACTED]			
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Sample Receipt Advice

Company name: JBS & G Australia (VIC) P/L
Contact name: [REDACTED]
Project name: VIC_0066_PFASOMP_24a
Project ID: 66022
Turnaround time: 5 Day
Date/Time received: Nov 20, 2024 3:29 PM
Eurofins reference: 1162570

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 : 8.4 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.
- ✓ Split sample sent to requested external lab.
- ✗ 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]

Results will be delivered electronically via email to [REDACTED]

Note: A copy of these results will also be delivered to the general JBS & G Australia (VIC) P/L email address.



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

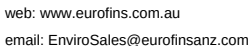
Order No.:
Report #: 1162570
Phone: [Redacted]
Fax:

Received: Nov 20, 2024 3:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24a
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	0066_SW016_241119	Nov 19, 2024		Water	M24-No0056622			X	
2	0066_SW017_241119	Nov 19, 2024		Water	M24-No0056623			X	
3	0066_SW015_241119	Nov 19, 2024		Water	M24-No0056624			X	
4	0066_SW014_241119	Nov 19, 2024		Water	M24-No0056625			X	
5	0066_SW057_241119	Nov 19, 2024		Water	M24-No0056626			X	
6	0066_SW023_241119	Nov 19, 2024		Water	M24-No0056627			X	
7	0066_SW024_241119	Nov 19, 2024		Water	M24-No0056628			X	
8	cancel	Nov 19, 2024		Water	M24-No0056629	X			
9	cancel	Nov 19, 2024		Water	M24-No0056630	X			



Eurofins Environment Testing NZ Ltd

Received: Nov 20, 2024 3:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
10	0066_SW022_241119	Nov 19, 2024		Water	M24-No0056631			X	
11	0066_SW074_241119	Nov 19, 2024		Water	M24-No0056632			X	
12	0066_SW073_241119	Nov 19, 2024		Water	M24-No0056633			X	
13	0066_SW090_241119	Nov 19, 2024		Water	M24-No0056634			X	
14	0066_SW003_241118	Nov 18, 2024		Water	M24-No0056635			X	
15	0066_SW071_241118	Nov 18, 2024		Water	M24-No0056636			X	
16	0066_SW019_241118	Nov 18, 2024		Water	M24-No0056637			X	
17	0066_SW027_241118	Nov 18, 2024		Water	M24-No0056638			X	
18	0066_SW029_241118	Nov 18, 2024		Water	M24-No0056639			X	
19	0066_SW030_241118	Nov 18, 2024		Water	M24-No0056640			X	



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.:
Report #: 1162570
Phone: [Redacted]
Fax:

Received: Nov 20, 2024 3:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24a
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
20	0066_SW028_241118	Nov 18, 2024		Water	M24-No0056641			X	
21	0066_SW004_241118	Nov 18, 2024		Water	M24-No0056642			X	
22	0066_SW001_241118	Nov 18, 2024		Water	M24-No0056643			X	
23	0066_SW002_241118	Nov 18, 2024		Water	M24-No0056644			X	
24	0066_SW005_241118	Nov 18, 2024		Water	M24-No0056645			X	
25	0066_SW006_241118	Nov 18, 2024		Water	M24-No0056646			X	
26	0066_SW007_241118	Nov 18, 2024		Water	M24-No0056647			X	
27	0066_SW078_241118	Nov 18, 2024		Water	M24-No0056648			X	
28	0066_SW077_241118	Nov 18, 2024		Water	M24-No0056649			X	
29	0066_SW018_241118	Nov 18, 2024		Water	M24-No0056650			X	



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24a

Project ID: 66022

Order No.: [REDACTED]

Report #: 1162570

Phone: [REDACTED]

Fax: [REDACTED]

Received: Nov 20, 2024 3:29 PM

Due: Nov 27, 2024

Priority: 5 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
30	0066_SW020_241118	Nov 18, 2024		Water	M24-No0056651			X	
31	0066_SW009_241118	Nov 18, 2024		Water	M24-No0056652			X	
32	0066_SW076_241118	Nov 18, 2024		Water	M24-No0056653			X	
33	0066_SW010_241118	Nov 18, 2024		Water	M24-No0056654			X	
34	0066_SW075_241118	Nov 18, 2024		Water	M24-No0056655			X	
35	0066_QC101_241119	Nov 19, 2024		Water	M24-No0056656			X	
36	0066_QC103_241119	Nov 19, 2024		Water	M24-No0056657			X	
37	0066_QC301_241119	Nov 19, 2024		Water	M24-No0056658				X
38	0066_QC401_241119	Nov 19, 2024		Water	M24-No0056659				X
39	0066_QC501_241119	Nov 19, 2024		Water	M24-No0056660				X



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.: [Redacted]
Report #: 1162570
Phone: [Redacted]
Fax: [Redacted]

Received: Nov 20, 2024 3:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24a
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
40	0066_QC101_241118	Nov 18, 2024		Water	M24-No0056661			X	
41	0066_QC102_241118	Nov 18, 2024		Water	M24-No0056662			X	
42	0066_QC301_241118	Nov 18, 2024		Water	M24-No0056663				X
43	0066_QC401_241118	Nov 18, 2024		Water	M24-No0056664				X
44	0066_QC501_241118	Nov 18, 2024		Water	M24-No0056665				X
45	0066_QC103_241118	Nov 18, 2024		Water	M24-No0056666		X		
Test Counts						2	1	36	6

JBS & G Australia (VIC) P/L

NATA Accredited
Accreditation Number 1261
Site Number 1254

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:**Report** **1162570-W-V2**
 Project name **VIC_0066_PFASOMP_24a**
 Project ID **66022**
 Received Date **Nov 20, 2024**

Client Sample ID			0066_SW016_2 41119	0066_SW017_2 41119	0066_SW015_2 41119	0066_SW014_2 41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056622	M24- No0056623	M24- No0056624	M24- No0056625
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	0.07	< 0.05	0.13	0.27
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.15	< 0.01	0.34	0.71
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	1.1	0.03	2.2	4.3
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.20	< 0.01	0.36	0.68
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	0.77	< 0.01	0.82	1.1
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	0.06	< 0.01	0.04	0.05
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	%	12	53	9.0	13
13C5-PFPeA (surr.)	1	%	39	119	25	32
13C5-PFHxA (surr.)	1	%	52	121	36	40
13C4-PFHpA (surr.)	1	%	82	113	57	64
13C8-PFOA (surr.)	1	%	67	82	57	55
13C5-PFNA (surr.)	1	%	87	66	96	82
13C6-PFDA (surr.)	1	%	59	51	57	40
13C2-PFUnDA (surr.)	1	%	65	41	52	58
13C2-PFDoDA (surr.)	1	%	61	41	63	55
13C2-PFTeDA (surr.)	1	%	102	79	156	152
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-ethylperfluorooctanesulfonamidoacetic 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	0.17	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	120	49	116	89
D3-N-MeFOSA (surr.)	1	%	85	12	158	59

Client Sample ID			0066_SW016_2 41119	0066_SW017_2 41119	0066_SW015_2 41119	0066_SW014_2 41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056622	M24- No0056623	M24- No0056624	M24- No0056625
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	84	27	102	70
D7-N-MeFOSE (surr.)	1	%	168	38	165	149
D9-N-EtFOSE (surr.)	1	%	152	42	146	149
D5-N-EtFOSAA (surr.)	1	%	66	44	58	57
D3-N-MeFOSAA (surr.)	1	%	81	48	60	66
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.23	0.02	0.34	0.51
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	0.02	< 0.01	< 0.01	0.03
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.10	< 0.01	0.13	0.21
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.23	0.01	0.31	0.50
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	1.5	0.04	1.9	3.0
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.18	< 0.01	0.13	0.10
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	2.0	0.06	1.4	3.8
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	73	123	61	52
18O2-PFHxS (surr.)	1	%	76	88	75	62
13C8-PFOS (surr.)	1	%	67	63	71	57
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	%	65	95	55	55
13C2-6:2 FTSA (surr.)	1	%	78	77	71	71
13C2-8:2 FTSA (surr.)	1	%	78	55	70	65
13C2-10:2 FTSA (surr.)	1	%	69	48	55	61
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	3.5	0.1	3.3	6.8
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	2.77	0.06	2.22	4.9
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	4.27	0.1	4.12	7.9
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	6.02	0.15	7.49	14.37
Sum of PFASs (n=30)*	0.1	ug/L	6.78	0.16	8.1	15.26

Client Sample ID			0066_SW057_2 41119	0066_SW023_2 41119	0066_SW024_2 41119	0066_SW022_2 41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056626	M24- No0056627	M24- No0056628	M24- No0056631
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	0.28	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.73	< 0.01	< 0.01	0.02
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	4.7	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.70	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	1.1	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	0.04	< 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	%	13	39	62	10
13C5-PFPeA (surr.)	1	%	32	84	114	14
13C5-PFHxA (surr.)	1	%	39	100	112	21
13C4-PFHpA (surr.)	1	%	64	106	108	32
13C8-PFOA (surr.)	1	%	55	94	91	34
13C5-PFNA (surr.)	1	%	84	80	78	41
13C6-PFDA (surr.)	1	%	44	73	65	43
13C2-PFUnDA (surr.)	1	%	52	57	45	49
13C2-PFDoDA (surr.)	1	%	49	60	47	61
13C2-PFTeDA (surr.)	1	%	141	142	90	135
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	%	99	101	94	90
D3-N-MeFOSA (surr.)	1	%	149	188	116	147
D5-N-EtFOSA (surr.)	1	%	122	164	72	164
D7-N-MeFOSE (surr.)	1	%	162	142	90	238
D9-N-EtFOSE (surr.)	1	%	147	132	106	262
D5-N-EtFOSAA (surr.)	1	%	54	56	51	40
D3-N-MeFOSAA (surr.)	1	%	69	67	62	45
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.57	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	0.02	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.21	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.51	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	3.1	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.11	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	2.7	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_SW057_2_41119	0066_SW023_2_41119	0066_SW024_2_41119	0066_SW022_2_41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056626	M24-No0056627	M24-No0056628	M24-No0056631
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	51	111	100	50
18O2-PFHxS (surr.)	1	%	62	93	88	62
13C8-PFOS (surr.)	1	%	59	88	75	69
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	56	85	90	27
13C2-6:2 FTSA (surr.)	1	%	72	78	77	25
13C2-8:2 FTSA (surr.)	1	%	65	66	64	31
13C2-10:2 FTSA (surr.)	1	%	54	58	49	56
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	5.8	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	3.8	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	6.9	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	13.88	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	14.77	< 0.1	< 0.1	< 0.1

Client Sample ID			0066_SW074_2_41119	0066_SW073_2_41119	0066_SW090_2_41119	0066_SW003_2_41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056632	M24-No0056633	M24-No0056634	M24-No0056635
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCA)						
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}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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 (PFTTrDA) ^{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	%	75	46	54	58
13C5-PFPeA (surr.)	1	%	121	99	125	134
13C5-PFHxA (surr.)	1	%	117	111	116	116
13C4-PFHpA (surr.)	1	%	111	115	101	97
13C8-PFOA (surr.)	1	%	98	100	93	91
13C5-PFNA (surr.)	1	%	88	89	82	77
13C6-PFDA (surr.)	1	%	78	79	59	55

Client Sample ID			0066_SW074_2 41119	0066_SW073_2 41119	0066_SW090_2 41119	0066_SW003_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056632	M24- No0056633	M24- No0056634	M24- No0056635
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C2-PFUnDA (surr.)	1	%	57	57	43	41
13C2-PFDoDA (surr.)	1	%	50	57	42	38
13C2-PFTeDA (surr.)	1	%	77	134	81	62
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	%	101	120	69	54
D3-N-MeFOSA (surr.)	1	%	28	137	10	14
D5-N-EtFOSA (surr.)	1	%	25	125	33	11
D7-N-MeFOSE (surr.)	1	%	89	194	58	33
D9-N-EtFOSE (surr.)	1	%	92	194	56	25
D5-N-EtFOSAA (surr.)	1	%	57	56	43	38
D3-N-MeFOSAA (surr.)	1	%	67	68	50	48
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	0.04	0.02	< 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	0.08	0.06	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	106	106	108	103
18O2-PFHxS (surr.)	1	%	96	97	92	89
13C8-PFOS (surr.)	1	%	89	86	69	67
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	92	84	87	93
13C2-6:2 FTSA (surr.)	1	%	88	87	82	80
13C2-8:2 FTSA (surr.)	1	%	74	75	59	54
13C2-10:2 FTSA (surr.)	1	%	59	57	46	42

Client Sample ID			0066_SW074_2 41119	0066_SW073_2 41119	0066_SW090_2 41119	0066_SW003_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056632	M24- No0056633	M24- No0056634	M24- No0056635
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	0.12	0.08	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	0.08	0.06	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	0.12	0.08	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	0.14	0.08	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	0.14	< 0.1	< 0.1

Client Sample ID			0066_SW071_2 41118	0066_SW019_2 41118	0066_SW027_2 41118	0066_SW029_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056636	M24- No0056637	M24- No0056638	M24- No0056639
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 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	0.02	0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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 (PFTriDA) ^{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	%	60	32	41	56
13C5-PFPeA (surr.)	1	%	133	88	87	108
13C5-PFHxA (surr.)	1	%	113	101	97	114
13C4-PFHpA (surr.)	1	%	97	104	99	112
13C8-PFOA (surr.)	1	%	90	97	82	102
13C5-PFNA (surr.)	1	%	75	85	67	89
13C6-PFDA (surr.)	1	%	47	76	54	79
13C2-PFUnDA (surr.)	1	%	33	55	36	55
13C2-PFDoDA (surr.)	1	%	27	53	36	46
13C2-PFTeDA (surr.)	1	%	67	108	77	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	%	51	90	75	109

Client Sample ID			0066_SW071_2 41118	0066_SW019_2 41118	0066_SW027_2 41118	0066_SW029_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056636	M24- No0056637	M24- No0056638	M24- No0056639
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	13	60	53	76
D5-N-EtFOSA (surr.)	1	%	40	40	48	62
D7-N-MeFOSE (surr.)	1	%	23	92	70	123
D9-N-EtFOSE (surr.)	1	%	31	118	75	114
D5-N-EtFOSAA (surr.)	1	%	32	56	37	57
D3-N-MeFOSAA (surr.)	1	%	39	64	43	66
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.02	< 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	0.02	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	0.03	0.21	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	0.02	0.21	0.04
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	101	96	104	105
18O2-PFHxS (surr.)	1	%	89	87	78	95
13C8-PFOS (surr.)	1	%	59	78	61	86
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	%	86	84	70	91
13C2-6:2 FTSA (surr.)	1	%	83	80	68	90
13C2-8:2 FTSA (surr.)	1	%	48	71	51	74
13C2-10:2 FTSA (surr.)	1	%	32	52	40	46
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	0.05	0.42	0.05
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	0.02	0.21	0.04
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	0.05	0.42	0.05
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	0.05	0.46	0.07
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	0.49	< 0.1

Client Sample ID			0066_SW030_2 41118	0066_SW028_2 41118	0066_SW004_2 41118	0066_SW001_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056640	M24- No0056641	M24- No0056642	M24- No0056643
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 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	0.03	< 0.01	0.02	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.02	0.01	0.15	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.04	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	0.14	< 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	%	57	101	51	58
13C5-PFPeA (surr.)	1	%	101	93	109	131
13C5-PFHxA (surr.)	1	%	109	99	105	115
13C4-PFHpA (surr.)	1	%	110	101	106	99
13C8-PFOA (surr.)	1	%	92	84	85	93
13C5-PFNA (surr.)	1	%	78	75	86	76
13C6-PFDA (surr.)	1	%	67	69	52	48
13C2-PFUnDA (surr.)	1	%	57	51	42	30
13C2-PFDoDA (surr.)	1	%	59	49	43	30
13C2-PFTeDA (surr.)	1	%	115	90	67	51
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	%	68	88	97	68
D3-N-MeFOSA (surr.)	1	%	38	35	40	22
D5-N-EtFOSA (surr.)	1	%	47	63	32	28
D7-N-MeFOSE (surr.)	1	%	95	93	106	53
D9-N-EtFOSE (surr.)	1	%	127	116	91	37
D5-N-EtFOSAA (surr.)	1	%	57	51	44	34
D3-N-MeFOSAA (surr.)	1	%	59	58	53	39
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	0.01	0.10	< 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	< 0.01	0.02	0.16	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	0.02	0.15	1.1	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	0.07	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	0.07	0.21	2.0	0.02
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_SW030_2 41118	0066_SW028_2 41118	0066_SW004_2 41118	0066_SW001_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056640	M24- No0056641	M24- No0056642	M24- No0056643
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	105	96	100	104
18O2-PFHxS (surr.)	1	%	90	82	82	91
13C8-PFOS (surr.)	1	%	78	101	63	64
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	85	76	82	90
13C2-6:2 FTSA (surr.)	1	%	81	74	80	83
13C2-8:2 FTSA (surr.)	1	%	63	65	59	49
13C2-10:2 FTSA (surr.)	1	%	61	54	45	30
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.09	0.36	3.1	0.02
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.07	0.21	2.14	0.02
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.09	0.36	3.24	0.02
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.14	0.38	3.55	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	0.14	0.4	3.8	< 0.1

Client Sample ID			0066_SW002_2 41118	0066_SW005_2 41118	0066_SW006_2 41118	0066_SW007_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056644	M24- No0056645	M24- No0056646	M24- No0056647
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCA)						
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}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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 (PFTTrDA) ^{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	%	94	89	89	86
13C5-PFPeA (surr.)	1	%	141	141	143	139
13C5-PFHxA (surr.)	1	%	133	136	135	132
13C4-PFHpA (surr.)	1	%	100	100	97	97
13C8-PFOA (surr.)	1	%	118	118	114	113
13C5-PFNA (surr.)	1	%	78	78	75	72
13C6-PFDA (surr.)	1	%	73	76	74	68

Client Sample ID			0066_SW002_2 41118	0066_SW005_2 41118	0066_SW006_2 41118	0066_SW007_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056644	M24- No0056645	M24- No0056646	M24- No0056647
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C2-PFUnDA (surr.)	1	%	62	64	64	59
13C2-PFDoDA (surr.)	1	%	60	58	64	60
13C2-PFTeDA (surr.)	1	%	86	87	113	94
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	0.09	< 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	%	47	55	52	47
D3-N-MeFOSA (surr.)	1	%	27	29	29	22
D5-N-EtFOSA (surr.)	1	%	34	33	34	26
D7-N-MeFOSE (surr.)	1	%	21	33	27	25
D9-N-EtFOSE (surr.)	1	%	20	30	26	27
D5-N-EtFOSAA (surr.)	1	%	43	39	41	39
D3-N-MeFOSAA (surr.)	1	%	79	79	82	74
Perfluoroalkyl sulfonic acids (PFSA)						
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	0.04	0.03	0.03	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	112	116	114	106
18O2-PFHxS (surr.)	1	%	89	91	87	83
13C8-PFOS (surr.)	1	%	81	79	78	74
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	132	147	148	137
13C2-6:2 FTSA (surr.)	1	%	87	84	83	84
13C2-8:2 FTSA (surr.)	1	%	79	80	78	75
13C2-10:2 FTSA (surr.)	1	%	61	61	66	60

Client Sample ID			0066_SW002_2 41118	0066_SW005_2 41118	0066_SW006_2 41118	0066_SW007_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056644	M24- No0056645	M24- No0056646	M24- No0056647
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.04	0.03	0.03	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.04	0.03	0.03	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.04	0.03	0.03	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	0.12	< 0.1

Client Sample ID			0066_SW078_2 41118	0066_SW077_2 41118	0066_SW018_2 41118	0066_SW020_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056648	M24- No0056649	M24- No0056650	M24- No0056651
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 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	0.02	0.02	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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 (PFTriDA) ^{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	%	81	79	63	58
13C5-PFPeA (surr.)	1	%	103	114	120	127
13C5-PFHxA (surr.)	1	%	110	129	113	124
13C4-PFHpA (surr.)	1	%	100	104	99	117
13C8-PFOA (surr.)	1	%	139	128	82	110
13C5-PFNA (surr.)	1	%	97	84	71	90
13C6-PFDA (surr.)	1	%	102	79	51	66
13C2-PFUnDA (surr.)	1	%	92	62	35	39
13C2-PFDoDA (surr.)	1	%	96	55	55	29
13C2-PFTeDA (surr.)	1	%	123	66	66	39
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	0.13	< 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	%	77	30	71	120

Client Sample ID			0066_SW078_2 41118	0066_SW077_2 41118	0066_SW018_2 41118	0066_SW020_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056648	M24- No0056649	M24- No0056650	M24- No0056651
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D3-N-MeFOSA (surr.)	1	%	77	77	16	161
D5-N-EtFOSA (surr.)	1	%	87	51	13	153
D7-N-MeFOSE (surr.)	1	%	47	13	44	93
D9-N-EtFOSE (surr.)	1	%	49	15	62	96
D5-N-EtFOSAA (surr.)	1	%	51	33	66	39
D3-N-MeFOSAA (surr.)	1	%	83	64	45	50
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	0.02	< 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	0.03	0.06	< 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	0.02	0.02	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	122	118	104	126
18O2-PFHxS (surr.)	1	%	112	95	89	110
13C8-PFOS (surr.)	1	%	101	90	62	77
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
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	%	90	122	102	109
13C2-6:2 FTSA (surr.)	1	%	87	88	82	97
13C2-8:2 FTSA (surr.)	1	%	102	87	49	64
13C2-10:2 FTSA (surr.)	1	%	97	57	52	29
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.05	0.08	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.02	0.02	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.05	0.08	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.07	0.12	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	0.26	< 0.1	< 0.1

Client Sample ID			0066_SW009_2 41118	0066_SW076_2 41118	0066_SW010_2 41118	0066_SW075_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056652	M24- No0056653	M24- No0056654	M24- No0056655
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 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}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
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	%	58	66	53	64
13C5-PFPeA (surr.)	1	%	129	119	101	125
13C5-PFHxA (surr.)	1	%	122	112	112	132
13C4-PFHpA (surr.)	1	%	116	99	99	136
13C8-PFOA (surr.)	1	%	109	87	79	131
13C5-PFNA (surr.)	1	%	95	75	79	121
13C6-PFDA (surr.)	1	%	74	62	61	107
13C2-PFUnDA (surr.)	1	%	48	46	46	66
13C2-PFDoDA (surr.)	1	%	33	76	81	50
13C2-PFTeDA (surr.)	1	%	52	79	130	53
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	%	103	82	76	112
D3-N-MeFOSA (surr.)	1	%	180	34	11	65
D5-N-EtFOSA (surr.)	1	%	197	33	10	73
D7-N-MeFOSE (surr.)	1	%	88	71	49	75
D9-N-EtFOSE (surr.)	1	%	95	140	95	83
D5-N-EtFOSAA (surr.)	1	%	48	77	73	66
D3-N-MeFOSAA (surr.)	1	%	63	51	53	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	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	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	0.03
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			0066_SW009_2 41118	0066_SW076_2 41118	0066_SW010_2 41118	0066_SW075_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056652	M24- No0056653	M24- No0056654	M24- No0056655
Date Sampled			Nov 18, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSA)						
13C3-PFBS (surr.)	1	%	124	108	112	124
18O2-PFHxS (surr.)	1	%	108	91	96	123
13C8-PFOS (surr.)	1	%	80	68	77	101
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	102	86	93
13C2-6:2 FTSA (surr.)	1	%	98	84	81	103
13C2-8:2 FTSA (surr.)	1	%	69	59	60	89
13C2-10:2 FTSA (surr.)	1	%	33	72	85	50
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	0.1	0.04
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.07	0.03
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	0.1	0.04
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	0.11	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	0.11	< 0.1

Client Sample ID			0066_QC101_2 41119	0066_QC103_2 41119	0066_QC301_2 41119	0066_QC401_2 41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056656	M24- No0056657	M24- No0056658	M24- No0056659
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCA)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	0.09	0.32	-	-
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.28	0.96	-	-
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	1.3	4.4	-	-
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	0.28	0.77	-	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	1.1	1.3	-	-
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	0.06	0.05	-	-
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 (PFTTrDA) ^{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	%	25	28	-	-
13C5-PFPeA (surr.)	1	%	62	55	-	-
13C5-PFHxA (surr.)	1	%	73	60	-	-
13C4-PFHpA (surr.)	1	%	86	71	-	-
13C8-PFOA (surr.)	1	%	85	68	-	-
13C5-PFNA (surr.)	1	%	110	97	-	-
13C6-PFDA (surr.)	1	%	80	66	-	-

Client Sample ID			0066_QC101_2 41119	0066_QC103_2 41119	0066_QC301_2 41119	0066_QC401_2 41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056656	M24- No0056657	M24- No0056658	M24- No0056659
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C2-PFUnDA (surr.)	1	%	92	71	-	-
13C2-PFDoDA (surr.)	1	%	75	61	-	-
13C2-PFTeDA (surr.)	1	%	109	99	-	-
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	0.17	< 0.05	-	-
13C8-FOSA (surr.)	1	%	194	175	-	-
D3-N-MeFOSA (surr.)	1	%	14	76	-	-
D5-N-EtFOSA (surr.)	1	%	10	76	-	-
D7-N-MeFOSE (surr.)	1	%	157	190	-	-
D9-N-EtFOSE (surr.)	1	%	148	177	-	-
D5-N-EtFOSAA (surr.)	1	%	85	58	-	-
D3-N-MeFOSAA (surr.)	1	%	94	72	-	-
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	0.25	0.57	-	-
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	0.03	0.02	-	-
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	0.10	0.21	-	-
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	0.28	0.55	-	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	2.0	3.3	-	-
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	0.18	0.22	-	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	2.7	3.0	-	-
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	-	-
13C3-PFBS (surr.)	1	%	84	66	-	-
18O2-PFHxS (surr.)	1	%	82	67	-	-
13C8-PFOS (surr.)	1	%	80	70	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	56	52	-	-
13C2-6:2 FTSA (surr.)	1	%	77	72	-	-
13C2-8:2 FTSA (surr.)	1	%	78	65	-	-
13C2-10:2 FTSA (surr.)	1	%	67	57	-	-

Client Sample ID			0066_QC101_2 41119	0066_QC103_2 41119	0066_QC301_2 41119	0066_QC401_2 41119
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056656	M24- No0056657	M24- No0056658	M24- No0056659
Date Sampled			Nov 19, 2024	Nov 19, 2024	Nov 19, 2024	Nov 19, 2024
Test/Reference	LOR	Unit				
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	4.7	6.3	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	3.8	4.3	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	5.8	7.6	-	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	8	14.62	-	-
Sum of PFASs (n=30)*	0.1	ug/L	8.83	15.67	-	-
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H,1H,2H,2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	-	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	-	-	61	84
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
18O2-PFHxS (surr.)	1	%	-	-	65	88
13C8-PFOS (surr.)	1	%	-	-	56	79
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	-	-	68	89
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	< 0.01	< 0.01

Client Sample ID			0066_QC501_2 41119	0066_QC101_2 41118	0066_QC102_2 41118	0066_QC301_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056660	M24- No0056661	M24- No0056662	M24- No0056663
Date Sampled			Nov 19, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	-	< 0.05	< 0.05	-
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	-	< 0.01	< 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 (PFTeDA) ^{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	%	-	65	53	-
13C5-PFPeA (surr.)	1	%	-	135	125	-
13C5-PFHxA (surr.)	1	%	-	126	120	-
13C4-PFHpA (surr.)	1	%	-	120	107	-
13C8-PFOA (surr.)	1	%	-	112	103	-
13C5-PFNA (surr.)	1	%	-	96	85	-
13C6-PFDA (surr.)	1	%	-	67	60	-
13C2-PFUnDA (surr.)	1	%	-	38	36	-
13C2-PFDoDA (surr.)	1	%	-	28	27	-
13C2-PFTeDA (surr.)	1	%	-	42	44	-

Client Sample ID			0066_QC501_2 41119	0066_QC101_2 41118	0066_QC102_2 41118	0066_QC301_2 41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24- No0056660	M24- No0056661	M24- No0056662	M24- No0056663
Date Sampled			Nov 19, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
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	%	-	77	53	-
D3-N-MeFOSA (surr.)	1	%	-	42	39	-
D5-N-EtFOSA (surr.)	1	%	-	53	57	-
D7-N-MeFOSE (surr.)	1	%	-	33	27	-
D9-N-EtFOSE (surr.)	1	%	-	33	34	-
D5-N-EtFOSAA (surr.)	1	%	-	38	35	-
D3-N-MeFOSAA (surr.)	1	%	-	48	45	-
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	< 0.01	< 0.01	-
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	-	< 0.01	< 0.01	-
13C3-PFBS (surr.)	1	%	-	129	122	-
18O2-PFHxS (surr.)	1	%	-	114	107	-
13C8-PFOS (surr.)	1	%	-	76	73	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
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	%	-	115	108	-
13C2-6:2 FTSA (surr.)	1	%	-	99	91	-
13C2-8:2 FTSA (surr.)	1	%	-	63	62	-
13C2-10:2 FTSA (surr.)	1	%	-	29	27	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	-	< 0.01	< 0.01	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	< 0.01	< 0.01	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	< 0.01	< 0.01	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	< 0.05	< 0.05	-
Sum of PFASs (n=30)*	0.1	ug/L	-	< 0.1	< 0.1	-

Client Sample ID			0066_QC501_2_41118	0066_QC101_2_41118	0066_QC102_2_41118	0066_QC301_2_41118
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M24-No0056660	M24-No0056661	M24-No0056662	M24-No0056663
Date Sampled			Nov 19, 2024	Nov 18, 2024	Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit				
Per- and Polyfluoroalkyl Substances (PFASs) - Short						
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	-	-	< 0.05
13C2-6:2 FTSA (surr.)	1	%	83	-	-	136
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	-	-	< 0.01
18O2-PFHxS (surr.)	1	%	87	-	-	100
13C8-PFOS (surr.)	1	%	80	-	-	92
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	-	-	< 0.01
13C8-PFOA (surr.)	1	%	94	-	-	100
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	-	-	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	< 0.01

Client Sample ID			0066_QC401_2_41118	0066_QC501_2_41118
Sample Matrix			Water	Water
Eurofins Sample No.			M24-No0056664	M24-No0056665
Date Sampled			Nov 18, 2024	Nov 18, 2024
Test/Reference	LOR	Unit		
Per- and Polyfluoroalkyl Substances (PFASs) - Short				
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
13C2-6:2 FTSA (surr.)	1	%	136	132
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
18O2-PFHxS (surr.)	1	%	102	92
13C8-PFOS (surr.)	1	%	91	79
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C8-PFOA (surr.)	1	%	98	91
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01

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
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	Nov 26, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	Nov 26, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	Nov 26, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	Nov 26, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	Nov 20, 2024	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Per- and Polyfluoroalkyl Substances (PFASs) - Short	Melbourne	Nov 25, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			



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Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24a

Project ID: 66022

Order No.:

Report #: 1162570

Phone: [REDACTED]

Fax:

Received: Nov 20, 2024 3:29 PM

Due: Nov 27, 2024

Priority: 5 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	0066_SW016_241119	Nov 19, 2024		Water	M24-No0056622			X	
2	0066_SW017_241119	Nov 19, 2024		Water	M24-No0056623			X	
3	0066_SW015_241119	Nov 19, 2024		Water	M24-No0056624			X	
4	0066_SW014_241119	Nov 19, 2024		Water	M24-No0056625			X	
5	0066_SW057_241119	Nov 19, 2024		Water	M24-No0056626			X	
6	0066_SW023_241119	Nov 19, 2024		Water	M24-No0056627			X	
7	0066_SW024_241119	Nov 19, 2024		Water	M24-No0056628			X	
8	cancel	Nov 19, 2024		Water	M24-No0056629	X			
9	cancel	Nov 19, 2024		Water	M24-No0056630	X			



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IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L

Address: [REDACTED]

Project Name: VIC_0066_PFASOMP_24a

Project ID: 66022

Order No.: [REDACTED]

Report #: 1162570

Phone: [REDACTED]

Fax: [REDACTED]

Received: Nov 20, 2024 3:29 PM

Due: Nov 27, 2024

Priority: 5 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
10	0066_SW022_241119	Nov 19, 2024		Water	M24-No0056631			X	
11	0066_SW074_241119	Nov 19, 2024		Water	M24-No0056632			X	
12	0066_SW073_241119	Nov 19, 2024		Water	M24-No0056633			X	
13	0066_SW090_241119	Nov 19, 2024		Water	M24-No0056634			X	
14	0066_SW003_241118	Nov 18, 2024		Water	M24-No0056635			X	
15	0066_SW071_241118	Nov 18, 2024		Water	M24-No0056636			X	
16	0066_SW019_241118	Nov 18, 2024		Water	M24-No0056637			X	
17	0066_SW027_241118	Nov 18, 2024		Water	M24-No0056638			X	
18	0066_SW029_241118	Nov 18, 2024		Water	M24-No0056639			X	
19	0066_SW030_241118	Nov 18, 2024		Water	M24-No0056640			X	



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Priority:

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Contact Name:

Eurofins Analytical Services Manager :

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
20	0066_SW028_241118	Nov 18, 2024		Water	M24-No0056641			X	
21	0066_SW004_241118	Nov 18, 2024		Water	M24-No0056642			X	
22	0066_SW001_241118	Nov 18, 2024		Water	M24-No0056643			X	
23	0066_SW002_241118	Nov 18, 2024		Water	M24-No0056644			X	
24	0066_SW005_241118	Nov 18, 2024		Water	M24-No0056645			X	
25	0066_SW006_241118	Nov 18, 2024		Water	M24-No0056646			X	
26	0066_SW007_241118	Nov 18, 2024		Water	M24-No0056647			X	
27	0066_SW078_241118	Nov 18, 2024		Water	M24-No0056648			X	
28	0066_SW077_241118	Nov 18, 2024		Water	M24-No0056649			X	
29	0066_SW018_241118	Nov 18, 2024		Water	M24-No0056650			X	



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IANZ# 1402

Company Name: JBS & G Australia (VIC) P/L

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Project Name: VIC_0066_PFASOMP_24a

Project ID: 66022

Order No.: [REDACTED]

Report #: 1162570

Phone: [REDACTED]

Fax: [REDACTED]

Received: Nov 20, 2024 3:29 PM

Due: Nov 27, 2024

Priority: 5 Day

Contact Name: [REDACTED]

Eurofins Analytical Services Manager : [REDACTED]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
30	0066_SW020_241118	Nov 18, 2024		Water	M24-No0056651			X	
31	0066_SW009_241118	Nov 18, 2024		Water	M24-No0056652			X	
32	0066_SW076_241118	Nov 18, 2024		Water	M24-No0056653			X	
33	0066_SW010_241118	Nov 18, 2024		Water	M24-No0056654			X	
34	0066_SW075_241118	Nov 18, 2024		Water	M24-No0056655			X	
35	0066_QC101_241119	Nov 19, 2024		Water	M24-No0056656			X	
36	0066_QC103_241119	Nov 19, 2024		Water	M24-No0056657			X	
37	0066_QC301_241119	Nov 19, 2024		Water	M24-No0056658				X
38	0066_QC401_241119	Nov 19, 2024		Water	M24-No0056659				X
39	0066_QC501_241119	Nov 19, 2024		Water	M24-No0056660				X



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Company Name: JBS & G Australia (VIC) P/L
Address: [Redacted]

Order No.:
Report #: 1162570
Phone: 03 9642 0599
Fax:

Received: Nov 20, 2024 3:29 PM
Due: Nov 27, 2024
Priority: 5 Day
Contact Name: [Redacted]

Project Name: VIC_0066_PFASOMP_24a
Project ID: 66022

Eurofins Analytical Services Manager : [Redacted]

Sample Detail						CANCELLED*	HOLD*	Per- and Polyfluoroalkyl Substances (PFASs)	Per- and Polyfluoroalkyl Substances (PFASs) - Short
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
40	0066_QC101_241118	Nov 18, 2024		Water	M24-No0056661			X	
41	0066_QC102_241118	Nov 18, 2024		Water	M24-No0056662			X	
42	0066_QC301_241118	Nov 18, 2024		Water	M24-No0056663				X
43	0066_QC401_241118	Nov 18, 2024		Water	M24-No0056664				X
44	0066_QC501_241118	Nov 18, 2024		Water	M24-No0056665				X
45	0066_QC103_241118	Nov 18, 2024		Water	M24-No0056666		X		
Test Counts						2	1	36	6

Internal Quality Control Review and Glossary

General

- 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.
- Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
- Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
- 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 (<i>bis</i> -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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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	< 0.01			0.01	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 (PFTTrDA)	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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
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 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	< 0.01			0.01	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 (PFTTrDA)	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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
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 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	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
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	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	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	
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	< 0.01			0.01	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
Perfluoroalkyl sulfonic acids (PFSA's)							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
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 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	< 0.01			0.01	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							
Perfluoroalkyl sulfonic acids (PFSA's)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
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 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	< 0.01			0.01	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							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
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 carboxylic acids (PFCAs)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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-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							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
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 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	< 0.01			0.01	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							
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
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 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	< 0.01			0.01	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 (PFTTrDA)	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							
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							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
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							
PFASs Summations							
Sum (PFHxS + PFOS)*	ug/L	< 0.01			0.01	Pass	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	88			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropentanoic acid (PFPeA)	%	84			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	87			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	85			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	85			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	88			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	83			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	93			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	84			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	86			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	88			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	50			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	102			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	96			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	84			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	82			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	83			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	83			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	92			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	90			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	88			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	97			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	90			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	57			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	91			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	87			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	79			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	76			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	78			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	75			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	75			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	75			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	75			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	75			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	81			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	76			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	74			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	77			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	79			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	78			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	86			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	77			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	71			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFASs)							
Perfluorobutanesulfonic acid (PFBS)	%	76			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	74			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	86			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	80			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	76			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	78			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	74			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	58			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	76			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	81			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	78			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	79			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	85			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	79			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	84			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	95			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	82			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	92			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	102			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFASs)							
Perfluorobutanesulfonic acid (PFBS)	%	80			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	80			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	78			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	91			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	90			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	79			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	76			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	77			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	76			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	76			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	75			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	77			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	80			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	81			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	77			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	77			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	100			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	104			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	99			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	77			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	74			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	76			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	76			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	74			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	83			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	81			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	77			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	78			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	76			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	60			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	76			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	83			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	79			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	78			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	89			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	86			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	84			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	85			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	85			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	87			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	88			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	89			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	87			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	92			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	92			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	101			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	140			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	89			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	93			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	91			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	96			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	84			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	81			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	93			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	86			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	83			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	87			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	61			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	86			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	84			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	86			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	82			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	98			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	89			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	94			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	102			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	93			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	96			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	101			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	87			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	57			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	90			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	94			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	103			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	107			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	83			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	78			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	86			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	90			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	73			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	90			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	82			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	82			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	83			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	90			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	84			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	58			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	92			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	97			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)	%	80			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorononanoic acid (PFNA)	%	86			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	84			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	87			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	88			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	89			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	85			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	109			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	103			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	95			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	89			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	85			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorononanesulfonic acid (PFNS)	%	78			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	61			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	87			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	86			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	85			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	91			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	107			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	97			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	118			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	99			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	98			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	111			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	90			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	83			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	113			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	92			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	106			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	101			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	87			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	85			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	93			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	100			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	74			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	101			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	82			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	98			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	94			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	88			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	85			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	99			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	82			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	71			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	70			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorohexanoic acid (PFHxA)			%	85			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)			%	83			50-150	Pass	
Perfluorooctanoic acid (PFOA)			%	93			50-150	Pass	
Perfluorononanoic acid (PFNA)			%	86			50-150	Pass	
Perfluorodecanoic acid (PFDA)			%	83			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)			%	100			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)			%	82			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)			%	63			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)			%	76			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)			%	83			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)			%	97			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)			%	89			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)			%	85			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)			%	82			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)			%	79			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)			%	83			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)									
Perfluorobutanesulfonic acid (PFBS)			%	72			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)			%	79			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	66			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	76			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)			%	84			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	80			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)			%	81			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	63			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	80			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)			%	82			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	86			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	75			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)	M24-No0056623	CP	%	84			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056623	CP	%	75			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-No0056623	CP	%	91			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056623	CP	%	84			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0056623	CP	%	80			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056623	CP	%	79			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056623	CP	%	76			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056623	CP	%	79			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056623	CP	%	82			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056623	CP	%	59			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056623	CP	%	66			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances									
				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctane sulfonamide (FOSA)	M24-No0056623	CP	%	86			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056623	CP	%	88			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056623	CP	%	91			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056623	CP	%	70			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056623	CP	%	77			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056623	CP	%	81			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056623	CP	%	82			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0056623	CP	%	86			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0056623	CP	%	50			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056623	CP	%	88			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056623	CP	%	105			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056623	CP	%	84			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056623	CP	%	112			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056623	CP	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056623	CP	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056623	CP	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056623	CP	%	76			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0056633	CP	%	76			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056633	CP	%	98			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-No0056633	CP	%	86			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056633	CP	%	99			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0056633	CP	%	79			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056633	CP	%	80			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056633	CP	%	75			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056633	CP	%	78			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056633	CP	%	89			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056633	CP	%	61			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056633	CP	%	72			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctane sulfonamide (FOSA)	M24-No0056633	CP	%	80			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056633	CP	%	83			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056633	CP	%	114			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056633	CP	%	100			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056633	CP	%	71			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056633	CP	%	93			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0056633	CP	%	68			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0056633	CP	%	70			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056633	CP	%	75			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056633	CP	%	93			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056633	CP	%	76			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056633	CP	%	93			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056633	CP	%	75			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056633	CP	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056633	CP	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056633	CP	%	83			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCA's)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0056643	CP	%	84			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056643	CP	%	70			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-No0056643	CP	%	82			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056643	CP	%	88			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0056643	CP	%	78			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056643	CP	%	79			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056643	CP	%	76			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056643	CP	%	75			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056643	CP	%	83			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056643	CP	%	53			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056643	CP	%	94			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M24-No0056643	CP	%	83			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056643	CP	%	74			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056643	CP	%	70			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056643	CP	%	77			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056643	CP	%	73			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056643	CP	%	70			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056643	CP	%	82			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0056643	CP	%	77			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0056643	CP	%	53			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056643	CP	%	92			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056643	CP	%	91			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056643	CP	%	79			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056643	CP	%	98			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056643	CP	%	79			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056643	CP	%	80			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056643	CP	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056643	CP	%	77			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCA)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0056653	CP	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056653	CP	%	95			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-No0056653	CP	%	89			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056653	CP	%	91			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0056653	CP	%	83			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056653	CP	%	80			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056653	CP	%	78			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056653	CP	%	83			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056653	CP	%	86			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056653	CP	%	53			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056653	CP	%	68			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M24-No0056653	CP	%	87			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056653	CP	%	91			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056653	CP	%	74			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056653	CP	%	88			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056653	CP	%	96			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056653	CP	%	74			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056653	CP	%	79			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0056653	CP	%	88			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0056653	CP	%	68			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056653	CP	%	92			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056653	CP	%	85			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056653	CP	%	107			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056653	CP	%	108			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-No0056653	CP	%	118			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056653	CP	%	82			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056653	CP	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056653	CP	%	83			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056653	CP	%	86			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	M24-No0056659	CP	%	74			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M24-No0056659	CP	%	76			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M24-No0056659	CP	%	94			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M24-No0056659	CP	%	98			50-150	Pass	
Perfluorooctanoic acid (PFOA)	M24-No0056659	CP	%	101			50-150	Pass	
Perfluorononanoic acid (PFNA)	M24-No0056659	CP	%	94			50-150	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056659	CP	%	95			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056659	CP	%	106			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056659	CP	%	91			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056659	CP	%	66			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056659	CP	%	87			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056659	CP	%	77			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056659	CP	%	93			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M24-No0056659	CP	%	75			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M24-No0056659	CP	%	95			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056659	CP	%	74			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056659	CP	%	80			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056659	CP	%	88			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056659	CP	%	87			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M24-No0056659	CP	%	83			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M24-No0056659	CP	%	73			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056659	CP	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	M24-No0056659	CP	%	83			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056659	CP	%	87			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056659	CP	%	83			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			
Perfluorononanoic acid (PFNA)	M24-No0056622	CP	ug/L	0.06	0.05	2.0	30%	Pass	
Perfluorodecanoic acid (PFDA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M24-No0056622	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056622	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056622	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056622	CP	ug/L	< 0.05	Conf 0.00059	n/a	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056622	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)	M24-No0056622	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056622	CP	ug/L	0.17	0.17	2.0	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorononanesulfonic acid (PFNS)	M24-No0056622	CP	ug/L	0.02	0.02	7.0	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056622	CP	ug/L	0.10	0.10	2.0	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056622	CP	ug/L	0.18	0.17	8.0	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M24-No0056622	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056622	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA's)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFASs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M24-No0056632	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056632	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M24-No0056642	CP	ug/L	< 0.05	Conf 0.02208	n/a	30%	Pass
Perfluoropentanoic acid (PFPeA)	M24-No0056642	CP	ug/L	0.02	0.02	8.0	30%	Pass
Perfluorohexanoic acid (PFHxA)	M24-No0056642	CP	ug/L	0.15	0.15	5.0	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M24-No0056642	CP	ug/L	0.04	0.04	3.0	30%	Pass
Perfluorooctanoic acid (PFOA)	M24-No0056642	CP	ug/L	0.14	0.15	4.0	30%	Pass
Perfluorononanoic acid (PFNA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M24-No0056642	CP	ug/L	0.10	0.10	8.0	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056642	CP	ug/L	0.02	0.02	5.0	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056642	CP	ug/L	0.16	0.16	1.0	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056642	CP	ug/L	0.07	0.08	12	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M24-No0056642	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056642	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M24-No0056652	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M24-No0056652	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)				Result 1	Result 2	RPD		
Perfluorooctanoic acid (PFOA)	M24-No0054824	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorohexanesulfonic acid (PFHxS)	M24-No0054824	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M24-No0054824	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M24-No0054824	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Comments

Report 1162570-W-V2 (amendment to report 1162570-W) has been issued with Samples being changed from PFAS Trace Level to PFAS Standard level as per client request.

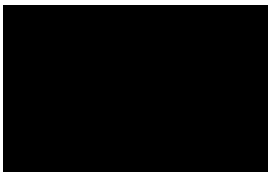
Sample Integrity

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:

	Analytical Services Manager
	Senior Analyst-PFAS
	Senior Analyst-PFAS
	Senior Analyst-PFAS
	Senior Analyst-PFAS
	

Managing Director

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Certificate of Analysis MFK0303

Client Details

Client	JBS & G Australia Pty Ltd (Melbourne)
Contact	
Address	19/31 Queen St, MELBOURNE, VIC, 3000

Sample Details

Your Reference	66022
Number of Samples	8 Water
Date Samples Received	19/11/2024
Date Instructions Received	19/11/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for soils and on an as received basis for other matrices.

Report Details

Date Results Requested by	26/11/2024
Date of Issue	27/11/2024

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Authorisation Details

Results Approved By		Chemist
Laboratory Manager		

Certificate of Analysis MFK0303

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
MFK0303-01	066_QC201_241114	Water	14/11/2024	19/11/2024
MFK0303-02	066_QC202_241114	Water	14/11/2024	19/11/2024
MFK0303-03	066_QC203_241114	Water	14/11/2024	19/11/2024
MFK0303-04	066_QC204_241114	Water	14/11/2024	19/11/2024
MFK0303-05	066_QC205_241114	Water	14/11/2024	19/11/2024
MFK0303-06	066_QC201_241115	Water	15/11/2024	19/11/2024
MFK0303-07	066_QC202_241115	Water	15/11/2024	19/11/2024
MFK0303-08	066_QC203_241115	Water	15/11/2024	19/11/2024

Certificate of Analysis MFK0303

PFAS Extended List (Trace Level) (Water) - Analysed By Envirolab Services Sydney

Envirolab ID Your Reference	Units	PQL	MFK0303-01 066_QC201_24 1114	MFK0303-02 066_QC202_24 1114	MFK0303-06 066_QC201_24 1115	MFK0303-07 066_QC202_24 1115
Date Sampled			14/11/2024	14/11/2024	15/11/2024	15/11/2024
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.00040	0.0040	<0.00040	0.0040	0.0018
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.0010	0.0017	<0.0010	0.0026	0.0016
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.00020	0.0097	<0.00020	0.015	0.019
Perfluoroheptanesulfonic acid (PFHpS)	µg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.00020	0.028	<0.00020	0.010	0.0090
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Perfluorobutanoic acid (PFBA)	µg/L	0.0020	0.0086	<0.0040	<0.0040	<0.0040
Perfluoropentanoic acid (PFPeA)	µg/L	0.0020	0.0048	<0.0020	0.0030	0.0046
Perfluorohexanoic acid (PFHxA)	µg/L	0.00040	0.0097	<0.00040	0.0056	0.0091
Perfluoroheptanoic acid (PFHpA)	µg/L	0.00040	0.012	<0.00040	0.00096	0.0030
Perfluorooctanoic acid (PFOA)	µg/L	0.00020	0.018	<0.00020	0.00073	0.0013
Perfluorononanoic acid (PFNA)	µg/L	0.0010	0.0049	<0.0010	<0.0010	<0.0010
Perfluorodecanoic acid (PFDA)	µg/L	0.0020	0.0028	<0.0020	<0.0020	<0.0020
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Perfluorododecanoic acid (PFDoDA)	µg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.010	<0.010	<0.010	<0.010	<0.010
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.050	<0.050	<0.050	<0.050	<0.050
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.00040	0.0029	0.0013	0.00082	0.0063
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.00040	<0.00040	<0.00040	<0.00040	<0.00040
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Perfluorooctane sulfonamide (FOSA)	µg/L	0.010	<0.010	<0.010	<0.010	<0.010
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.050	<0.050	<0.050	<0.050	<0.050
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.10	<0.10	<0.10	<0.10	<0.10
N-Methyl perfluorooctane sulfonamidoethanol	µg/L	0.050	<0.050	<0.050	<0.050	<0.050
N-Ethyl perfluorooctane sulfonamidoethanol	µg/L	0.50	<0.50	<0.50	<0.50	<0.50
N-Methyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020
N-Ethyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Surrogate 13C8 PFOS	%		63.0	63.4	76.6	66.7
Surrogate 13C2 PFOA	%		94.4	93.2	94.6	94.5
Total +ve PFHxS+PFOS	µg/L	0.00020	0.038	<0.00020	0.025	0.028
Total +ve PFOA+PFOS	µg/L	0.00020	0.046	<0.00020	0.011	0.010
Total +ve PFAS	µg/L	0.00020	0.11	0.0013	0.043	0.056
Extraction Internal Standard 13C3 PFBS	%		87.0	83.0	89.0	93.0
Extraction Internal Standard 18O2 PFHxS	%		108	95.0	104	112
Extraction Internal Standard 13C4 PFOS	%		112	98.0	113	116
Extraction Internal Standard 13C4 PFBA	%		38.0 [1]	49.0 [1]	35.0 [1]	43.0 [1]
Extraction Internal Standard 13C3 PFPeA	%		67.0	68.0	57.0	65.0
Extraction Internal Standard 13C2 PFHxA	%		76.0	77.0	72.0	85.0
Extraction Internal Standard 13C4 PFHpA	%		101	100	99.0	107
Extraction Internal Standard 13C4 PFOA	%		86.0	87.0	82.0	91.0
Extraction Internal Standard 13C5 PFNA	%		83.0	82.0	79.0	91.0

Certificate of Analysis MFK0303

PFAS Extended List (Trace Level) (Water) - Analysed By Envirolab Services Sydney

Envirolab ID	Units	PQL	MFK0303-01	MFK0303-02	MFK0303-06	MFK0303-07
Your Reference			066_QC201_24 1114	066_QC202_24 1114	066_QC201_24 1115	066_QC202_24 1115
Date Sampled			14/11/2024	14/11/2024	15/11/2024	15/11/2024
Extraction Internal Standard 13C2 PFDA	%		63.0	62.0	61.0	64.0
Extraction Internal Standard 13C2 PFUnDA	%		91.0	103	106	109
Extraction Internal Standard 13C2 PFDoDA	%		64.0	64.0	63.0	63.0
Extraction Internal Standard 13C2 PFTeDA	%		72.0	75.0	78.0	53.0
Extraction Internal Standard 13C2 4:2FTS	%		89.0	85.0	85.0	95.0
Extraction Internal Standard 13C2 6:2FTS	%		93.0	82.0	96.0	100
Extraction Internal Standard 13C2 8:2FTS	%		87.0	81.0	110	89.0
Extraction Internal Standard 13C8 FOSA	%		68.0	83.0	85.0	86.0
Extraction Internal Standard d3 N MeFOSA	%		185	187	189	194
Extraction Internal Standard d5 N EtFOSA	%		177	181	181	189
Extraction Internal Standard d7 N MeFOSE	%		196	202	206	220
Extraction Internal Standard d9 N EtFOSE	%		152	155	151	159
Extraction Internal Standard d3 N MeFOSAA	%		89.0	56.0	101	90.0
Extraction Internal Standard d5 N EtFOSAA	%		82.0	83.0	110	86.0

Certificate of Analysis MFK0303

Result Comments

Identifier	Description
[1]	For PFAS Extracted Internal Standards denoted with ## or being outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Certificate of Analysis MFK0303

Method Summary

Method ID	Methodology Summary
ORG-029	Soil/solid and sorbent samples are extracted with basified Methanol. Waters and soil/sorbent extracts are directly injected and/or concentrated/extracted using SPE. TCLP/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MSMS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

Certificate of Analysis MFK0303

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

Surrogate Spike

Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

LCS (Laboratory Control Sample)

This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Matrix Spike

A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

Certificate of Analysis MFK0303

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria. Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction. Spikes for Physical and Aggregate Tests are not applicable. For VOCs in water samples, three vials are required for duplicate or spike analysis.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% - see ELN-P05 QAQC tables for details (available on request); <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

Urine Analysis - The BEI values listed are taken from the 2022 edition of *TLVs and BEIs Threshold Limits by ACGIH*.

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary MFK0303

Client Details

Client	JBS & G Australia Pty Ltd (Melbourne)
Your Reference	66022
Date Issued	27/11/2024

Recommended Holding Time Compliance

No recommended holding time exceedances

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	Yes	No Outliers
Matrix Spike	Yes	No Outliers
Surrogates / Extracted Internal Standards	No	Surrogates / Extracted ISTD Outliers Exist - See detailed list below
QC Frequency	No	QC Frequency Outliers Exist - See detailed list below

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary MFK0303

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
PFAS EXT TR -ISTD Water	1-2	14/11/2024	27/11/2024	27/11/2024	Yes
	6-7	15/11/2024	27/11/2024	27/11/2024	Yes
PFAS-Extended TR Water	1-2	14/11/2024	27/11/2024	27/11/2024	Yes
	6-7	15/11/2024	27/11/2024	27/11/2024	Yes

Outliers: Surrogate / Extracted Internal Standards

ORG-029 | PFAS Extended List (Trace Level) (Matrix) | Batch BFK4980

Sample ID	Analyte	% Limits	% Recovery
MFK0303-01	Extraction Internal Standard d3 N MeFOSA	30 - 150	185
	Extraction Internal Standard d5 N EtFOSA	30 - 150	177
	Extraction Internal Standard d7 N MeFOSE	30 - 150	196
	Extraction Internal Standard d9 N EtFOSE	30 - 150	152
	Extraction Internal Standard 13C4 PFBA	50 - 150	38.0 [1]
MFK0303-02	Extraction Internal Standard d9 N EtFOSE	30 - 150	155
	Extraction Internal Standard 13C4 PFBA	50 - 150	49.0 [1]
	Extraction Internal Standard d3 N MeFOSA	30 - 150	187
	Extraction Internal Standard d5 N EtFOSA	30 - 150	181
	Extraction Internal Standard d7 N MeFOSE	30 - 150	202
MFK0303-06	Extraction Internal Standard d3 N MeFOSA	30 - 150	189
	Extraction Internal Standard d5 N EtFOSA	30 - 150	181
	Extraction Internal Standard d7 N MeFOSE	30 - 150	206
	Extraction Internal Standard d9 N EtFOSE	30 - 150	151
	Extraction Internal Standard 13C4 PFBA	50 - 150	35.0 [1]
MFK0303-07	Extraction Internal Standard d9 N EtFOSE	30 - 150	159
	Extraction Internal Standard 13C4 PFBA	50 - 150	43.0 [1]
	Extraction Internal Standard d3 N MeFOSA	30 - 150	194
	Extraction Internal Standard d5 N EtFOSA	30 - 150	189
	Extraction Internal Standard d7 N MeFOSE	30 - 150	220

Data Quality Assessment Summary MFK0303

Outliers: QC Frequency

ORG-029 | PFAS Extended List (Trace Level) (Water) | Batch BFK4980

Analysis	QC Type	Expected	Reported
PFAS EXT TR -ISTD	Duplicate	1	0
	Matrix Spike	1	0
PFAS-Extended TR	Duplicate	1	0
	Matrix Spike	1	0

Quality Control MFK0303

ORG-029 | PFAS Extended List (Trace Level) (Water) | Batch BFK4980

Analyte	Units	PQL	Blank	LCS %
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.00040	<0.00040	96.5
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.0010	<0.0010	83.7
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.00020	<0.00020	98.7
Perfluoroheptanesulfonic acid (PFHpS)	µg/L	0.0010	<0.0010	92.8
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.00020	<0.00020	85.4
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.0020	<0.0020	93.6
Perfluorobutanoic acid (PFBA)	µg/L	0.0020	<0.0020	95.1
Perfluoropentanoic acid (PFPeA)	µg/L	0.0020	<0.0020	93.4
Perfluorohexanoic acid (PFHxA)	µg/L	0.00040	<0.00040	95.1
Perfluoroheptanoic acid (PFHpA)	µg/L	0.00040	<0.00040	92.2
Perfluorooctanoic acid (PFOA)	µg/L	0.00020	<0.00020	90.7
Perfluorononanoic acid (PFNA)	µg/L	0.0010	<0.0010	98.4
Perfluorodecanoic acid (PFDA)	µg/L	0.0020	<0.0020	99.3
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.0020	<0.0020	89.0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.0050	<0.0050	94.5
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.010	<0.010	77.3
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.050	<0.050	90.5
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.0010	<0.0010	95.0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.00040	<0.00040	100
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.00040	<0.00040	105
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.0020	<0.0020	116
Perfluorooctane sulfonamide (FOSA)	µg/L	0.010	<0.010	100
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.050	<0.050	97.7
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.10	<0.10	92.9
N-Methyl perfluorooctane sulfonamidoethanol	µg/L	0.050	<0.050	91.5
N-Ethyl perfluorooctane sulfonamidoethanol	µg/L	0.50	<0.50	111
N-Methyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	96.3
N-Ethyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	99.0
Surrogate 13C8 PFOS	%		81.9	78.7
Surrogate 13C2 PFOA	%		99.1	96.9
Extraction Internal Standard 13C3 PFBS	%		75.0	[NA]
Extraction Internal Standard 18O2 PFHxS	%		79.0	[NA]
Extraction Internal Standard 13C4 PFOS	%		90.0	[NA]
Extraction Internal Standard 13C4 PFBA	%		89.0	[NA]
Extraction Internal Standard 13C3 PFPeA	%		89.0	[NA]
Extraction Internal Standard 13C2 PFHxA	%		81.0	[NA]
Extraction Internal Standard 13C4 PFHpA	%		88.0	[NA]
Extraction Internal Standard 13C4 PFOA	%		86.0	[NA]
Extraction Internal Standard 13C5 PFNA	%		90.0	[NA]
Extraction Internal Standard 13C2 PFDA	%		77.0	[NA]
Extraction Internal Standard 13C2 PFUnDA	%		89.0	[NA]
Extraction Internal Standard 13C2 PFDoDA	%		85.0	[NA]
Extraction Internal Standard 13C2 PFTeDA	%		49.0 [1]	[NA]
Extraction Internal Standard 13C2 4:2FTS	%		77.0	[NA]
Extraction Internal Standard 13C2 6:2FTS	%		88.0	[NA]
Extraction Internal Standard 13C2 8:2FTS	%		91.0	[NA]
Extraction Internal Standard 13C8 FOSA	%		90.0	[NA]
Extraction Internal Standard d3 N MeFOSA	%		201	[NA]
Extraction Internal Standard d5 N EtFOSA	%		186	[NA]
Extraction Internal Standard d7 N MeFOSE	%		211	[NA]
Extraction Internal Standard d9 N EtFOSE	%		158	[NA]
Extraction Internal Standard d3 N MeFOSAA	%		87.0	[NA]
Extraction Internal Standard d5 N EtFOSAA	%		91.0	[NA]

Quality Control MFK0303

QC Comments

Identifier	Description
[1]	For PFAS Extracted Internal Standards denoted with ## or being outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Relayed by Chris A 19.11.24

CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd

Melbourne
Level 19, 31 Queen Street, Melbourne VIC 3000
T: 03 9642 0599

ACN 100 220 478 • ABN 62 100 220 478



COPY

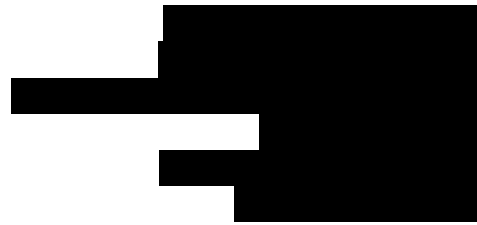
CLIENT: JBS&G		LABORATORY:		LABORATORY BATCH NO.:		
SITE/PROJECT NAME: VIC_0066_PFASQMP_24a		COC Reference #: NA		SAMPLERS:		
SEND REPORT TO: JBS&G Australia Pty Ltd		SEND INVOICE TO: JBS&G Australia Pty Ltd		PHONE: 03 9642 0599		
DATA NEEDED BY: standard		REPORT NEEDED BY: standard		REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES		
SITE/PROJECT NUMBER: 66022		QUOTE #:				
RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT: Courier		
NAME:		NAME:		DATE:		
OF:		OF:		TIME:		
NAME:		NAME:		DATE:		
OF:		OF:		TIME:		
P.O. NO.:		COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20....' to EnviroLab (highlighted purple) for analysis.		ANALYSIS REQUIRED		
FOR LAB USE ONLY		PFASquill - PFASquill: Per- and Polyfluoroalkyl Substances (PFAS) - Trace PFAS Short Suite Standard HOLD				
COOLER SEAL						
Yes No						
Broken Intact						
COOLER TEMP: deg.C		ANALYSIS TO COME VIA EMAIL				
SAMPLE DATA		CONTAINER DATA				
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field
0066_QC103_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_QC201_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_QC202_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_QC203_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_MW069_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW071_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW070_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW019_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW043_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW061_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW062_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW063_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW064_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_MW217D_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW046_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW047_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW033_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW054_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW207_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW063_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW208_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW209_241115	WATER	15/11/2024		1 X 500ML PFAS		
0066_MW109_241114	WATER	14/11/2024		1 X 500ML PFAS		
0066_QC501_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_QC502_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_QC503_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_QC504_241115	WATER	15/11/2024		2 X 250ML PFAS		
0066_QC301_241115	WATER	15/11/2024		2 X 250ML PFAS		

*Container Type and Preservative Codes:
P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST = Sodium Thiosulphate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

Forward to enviroLab for analysis

Forward to enviroLab for analysis

Forward to enviroLab for analysis



Certificate of Analysis MFK0357

Client Details

Client	JBS & G Australia Pty Ltd (Melbourne)
Contact	[REDACTED]
Address	19/31 Queen St, MELBOURNE, VIC, 3000

Sample Details

Your Reference	66022
Number of Samples	3 Water
Date Samples Received	21/11/2024
Date Instructions Received	21/11/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for soils and on an as received basis for other matrices.

Report Details

Date Results Requested by	28/11/2024
Date of Issue	28/11/2024

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Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with *.

Authorisation Details

Results Approved By	[REDACTED] Chemist
---------------------	--------------------

Laboratory Manager	[REDACTED]
--------------------	------------

Certificate of Analysis MFK0357

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
MFK0357-01	0066_QC202_241119	Water	19/11/2024	21/11/2024
MFK0357-02	0066_QC204_241119	Water	19/11/2024	21/11/2024
MFK0357-03	0066_QC205_241119	Water	19/11/2024	21/11/2024

Sample Comments

General Comment

No attempt to cool was made. Envirolab strongly recommends cooling to <6° C (or an attempt to cool) when samples are transported to the laboratory.

Certificate of Analysis MFK0357

PFAS Extended List (Trace Level) (Water) - Analysed By Envirolab Services Sydney

Envirolab ID Your Reference	Units	PQL	MFK0357-01 0066_QC202_2 41119 19/11/2024	MFK0357-02 0066_QC204_2 41119 19/11/2024
Date Sampled				
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.00040	2.6	0.018
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.0010	4.4	0.011
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.00020	60	0.086
Perfluoroheptanesulfonic acid (PFHpS)	µg/L	0.0010	0.92	0.0024
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.00020	2.7	0.057
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.0020	<0.020	<0.0020
Perfluorobutanoic acid (PFBA)	µg/L	0.0020	1.1	0.0058
Perfluoropentanoic acid (PFPeA)	µg/L	0.0020	2.2	0.012
Perfluorohexanoic acid (PFHxA)	µg/L	0.00040	12	0.032
Perfluoroheptanoic acid (PFHpA)	µg/L	0.00040	1.4	0.0067
Perfluorooctanoic acid (PFOA)	µg/L	0.00020	2.3	0.0095
Perfluorononanoic acid (PFNA)	µg/L	0.0010	<0.010	<0.0010
Perfluorodecanoic acid (PFDA)	µg/L	0.0020	<0.020	<0.0020
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.0020	<0.020	<0.0020
Perfluorododecanoic acid (PFDoDA)	µg/L	0.0050	<0.050	<0.0050
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.010	<0.10	<0.010
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.050	<0.50	<0.050
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.0010	<0.010	<0.0010
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.00040	<0.010	<0.00040
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.00040	<0.020	<0.00040
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.0020	<0.020	<0.0020
Perfluorooctane sulfonamide (FOSA)	µg/L	0.010	<0.10	<0.010
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.050	<0.050	<0.050
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.10	<0.10	<0.10
N-Methyl perfluorooctane sulfonamidoethanol	µg/L	0.050	<0.050	<0.050
N-Ethyl perfluorooctane sulfonamidoethanol	µg/L	0.50	<0.50	<0.50
N-Methyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.020	<0.0020
N-Ethyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.020	<0.0020
Surrogate 13C8 PFOS	%		96.9	70.8
Surrogate 13C2 PFOA	%		102	100
Total +ve PFHxS+PFOS	µg/L	0.00020	63	0.14
Total +ve PFOA+PFOS	µg/L	0.00020	5.0	0.066
Total +ve PFAS	µg/L	0.00020	90	0.24
Extraction Internal Standard 13C3 PFBS	%		101	97.0
Extraction Internal Standard 18O2 PFHxS	%		99.0	128
Extraction Internal Standard 13C4 PFOS	%		114	100
Extraction Internal Standard 13C4 PFBA	%		108	47.0 [1]
Extraction Internal Standard 13C3 PFPeA	%		118	60.0
Extraction Internal Standard 13C2 PFHxA	%		110	82.0
Extraction Internal Standard 13C4 PFHpA	%		100	103
Extraction Internal Standard 13C4 PFOA	%		110	86.0
Extraction Internal Standard 13C5 PFNA	%		118	79.0

Certificate of Analysis MFK0357

PFAS Extended List (Trace Level) (Water) - Analysed By Envirolab Services Sydney

Envirolab ID	Units	PQL	MFK0357-01	MFK0357-02
Your Reference			0066_QC202_2 41119	0066_QC204_2 41119
Date Sampled			19/11/2024	19/11/2024
Extraction Internal Standard 13C2 PFDA	%		120	66.0
Extraction Internal Standard 13C2 PFUnDA	%		128	75.0
Extraction Internal Standard 13C2 PFDoDA	%		118	66.0
Extraction Internal Standard 13C2 PFTeDA	%		113	64.0
Extraction Internal Standard 13C2 4:2FTS	%		109	114
Extraction Internal Standard 13C2 6:2FTS	%		118	98.0
Extraction Internal Standard 13C2 8:2FTS	%		123	100
Extraction Internal Standard 13C8 FOSA	%		120	84.0
Extraction Internal Standard d3 N MeFOSA	%		122	128
Extraction Internal Standard d5 N EtFOSA	%		119	118
Extraction Internal Standard d7 N MeFOSE	%		135	127
Extraction Internal Standard d9 N EtFOSE	%		116	118
Extraction Internal Standard d3 N MeFOSAA	%		119	69.0
Extraction Internal Standard d5 N EtFOSAA	%		132	116

Certificate of Analysis MFK0357

Result Comments

Identifier	Description
[1]	For PFAS Extracted Internal Standards denoted with ## or being outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Certificate of Analysis MFK0357

Method Summary

Method ID	Methodology Summary
ORG-029	Soil/solid and sorbent samples are extracted with basified Methanol. Waters and soil/sorbent extracts are directly injected and/or concentrated/extracted using SPE. TCLP/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MSMS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

Certificate of Analysis MFK0357

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

Surrogate Spike

Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

LCS (Laboratory Control Sample)

This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Matrix Spike

A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

Certificate of Analysis MFK0357

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria. Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction. Spikes for Physical and Aggregate Tests are not applicable. For VOCs in water samples, three vials are required for duplicate or spike analysis.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% - see ELN-P05 QAQC tables for details (available on request); <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

Urine Analysis - The BEI values listed are taken from the 2022 edition of *TLVs and BEIs Threshold Limits by ACGIH*.

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary MFK0357

Client Details

Client	JBS & G Australia Pty Ltd (Melbourne)
Your Reference	66022
Date Issued	28/11/2024

Recommended Holding Time Compliance

No recommended holding time exceedances

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	Yes	No Outliers
Matrix Spike	Yes	No Outliers
Surrogates / Extracted Internal Standards	No	Surrogates / Extracted ISTD Outliers Exist - See detailed list below
QC Frequency	No	QC Frequency Outliers Exist - See detailed list below

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary MFK0357

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
PFAS EXT TR -ISTD Water	1-2	19/11/2024	28/11/2024	28/11/2024	Yes
PFAS-Extended TR Water	1-2	19/11/2024	28/11/2024	28/11/2024	Yes

Outliers: Surrogate / Extracted Internal Standards

ORG-029 | PFAS Extended List (Trace Level) (Matrix) | Batch BFK5207

Sample ID	Analyte	% Limits	% Recovery
MFK0357-02	Extraction Internal Standard 13C4 PFBA	50 - 150	47.0 [1]

Outliers: QC Frequency

ORG-029 | PFAS Extended List (Trace Level) (Water) | Batch BFK5207

Analysis	QC Type	Expected	Reported
PFAS EXT TR -ISTD	Duplicate	1	0
	Matrix Spike	1	0
PFAS-Extended TR	Duplicate	1	0
	Matrix Spike	1	0

Quality Control MFK0357

ORG-029 | PFAS Extended List (Trace Level) (Water) | Batch BFK5207

Analyte	Units	PQL	Blank	LCS %
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.00040	<0.00040	102
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.0010	<0.0010	90.3
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.00020	<0.00020	98.4
Perfluoroheptanesulfonic acid (PFHpS)	µg/L	0.0010	<0.0010	92.7
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.00020	<0.00020	86.1
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.0020	<0.0020	90.6
Perfluorobutanoic acid (PFBA)	µg/L	0.0020	<0.0020	98.8
Perfluoropentanoic acid (PFPeA)	µg/L	0.0020	<0.0020	96.9
Perfluorohexanoic acid (PFHxA)	µg/L	0.00040	<0.00040	101
Perfluoroheptanoic acid (PFHpA)	µg/L	0.00040	<0.00040	95.5
Perfluorooctanoic acid (PFOA)	µg/L	0.00020	<0.00020	93.9
Perfluorononanoic acid (PFNA)	µg/L	0.0010	<0.0010	99.0
Perfluorodecanoic acid (PFDA)	µg/L	0.0020	<0.0020	103
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.0020	<0.0020	90.3
Perfluorododecanoic acid (PFDoDA)	µg/L	0.0050	<0.0050	99.2
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.010	<0.010	72.5
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.050	<0.050	103
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.0010	<0.0010	102
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.00040	<0.00040	113
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.00040	<0.00040	89.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.0020	<0.0020	123
Perfluorooctane sulfonamide (FOSA)	µg/L	0.010	<0.010	103
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.050	<0.050	104
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.10	<0.10	99.3
N-Methyl perfluorooctane sulfonamidoethanol	µg/L	0.050	<0.050	98.8
N-Ethyl perfluorooctane sulfonamidoethanol	µg/L	0.50	<0.50	104
N-Methyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	97.9
N-Ethyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	99.2
Surrogate 13C8 PFOS	%		99.4	87.8
Surrogate 13C2 PFOA	%		100	101
Extraction Internal Standard 13C3 PFBS	%		88.0	[NA]
Extraction Internal Standard 18O2 PFHxS	%		86.0	[NA]
Extraction Internal Standard 13C4 PFOS	%		82.0	[NA]
Extraction Internal Standard 13C4 PFBA	%		93.0	[NA]
Extraction Internal Standard 13C3 PFPeA	%		92.0	[NA]
Extraction Internal Standard 13C2 PFHxA	%		85.0	[NA]
Extraction Internal Standard 13C4 PFHpA	%		89.0	[NA]
Extraction Internal Standard 13C4 PFOA	%		93.0	[NA]
Extraction Internal Standard 13C5 PFNA	%		88.0	[NA]
Extraction Internal Standard 13C2 PFDA	%		79.0	[NA]
Extraction Internal Standard 13C2 PFUnDA	%		88.0	[NA]
Extraction Internal Standard 13C2 PFDoDA	%		89.0	[NA]
Extraction Internal Standard 13C2 PFTeDA	%		57.0	[NA]
Extraction Internal Standard 13C2 4:2FTS	%		84.0	[NA]
Extraction Internal Standard 13C2 6:2FTS	%		90.0	[NA]
Extraction Internal Standard 13C2 8:2FTS	%		81.0	[NA]
Extraction Internal Standard 13C8 FOSA	%		91.0	[NA]
Extraction Internal Standard d3 N MeFOSA	%		127	[NA]
Extraction Internal Standard d5 N EtFOSA	%		124	[NA]
Extraction Internal Standard d7 N MeFOSE	%		129	[NA]
Extraction Internal Standard d9 N EtFOSE	%		120	[NA]
Extraction Internal Standard d3 N MeFOSAA	%		81.0	[NA]
Extraction Internal Standard d5 N EtFOSAA	%		105	[NA]

CHAIN OF CUSTODY DOCUMENTATION

JBS&G (Australia) Pty Ltd

Melbourne
Level 19, 31 Queen Street, Melbourne VIC 3000
T: 03 9642 0599

ACN 100 220 479 - ABN 52 100 220 479



COPY

CLIENT: JBS&G

SITE/PROJECT NAME: VIC_0066_PFSOMP_24a

SEND REPORT TO: JBS&G Australia Pty Ltd

DATA NEEDED BY: standard

SITE/PROJECT NUMBER: 66022

LABORATORY:

COC Reference #: NA

SEND INVOICE TO: JBS&G Australia Pty Ltd

REPORT NEEDED BY: standard

QUOTE #:

LABORATORY BATCH NO.:

SAMPLERS:

PHONE: 03 9642 0599

REPORT FORMAT: HARD: NO FAX: NO E-MAIL: YES

RELINQUISHED BY:

RECEIVED BY

METHOD OF SHIPMENT: Courier

CONSIGNMENT NOTE NO.

OF: JBS&G (Australia) Pty Ltd

TIME: 20/11/24

NAME:

DATE:

OF:

TIME:

NAME:

DATE:

NAME:

DATE:

OF:

TIME:

OF:

TIME:

TRANSPORT CO. NAME:

P.O. NO.:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please send samples with IDs starting in '0066_QC20.....' to Envirolab (highlighted purple) for analysis.

ANALYSIS REQUIRED

FOR LAB USE ONLY

COOLER SEAL

Yes

No

Broken

Intact

COOLER TEMP: deg.C

ANALYSIS TO COME VIA EMAIL

SAMPLE DATA

CONTAINER DATA

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	NO.	pH field
0066_QC302_241119	WATER	19/11/2024		2 X 250ML PFAS		
0066_QC102_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC104_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC105_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC202_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC204_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC205_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW122S_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW067_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW018_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW117_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW051_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW017_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW034_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW068_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW041_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW110_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_MW102_241119	WATER	19/11/2024		1 X 500ML PFAS		
0066_QC502_241119	WATER	19/11/2024		2 X 250ML PFAS		
0066_QC402_241119	WATER	15/19/2024		2 X 250ML PFAS		
0066_QC301_241111	WATER	11/11/2024		2 X 250ML PFAS		
0066_QC302_241111	WATER	11/11/2024		2 X 250ML PFAS		
0066_QC301_241112	WATER	12/11/2024		2 X 250ML PFAS		
0066_QC302_241112	WATER	12/11/2024		2 X 250ML PFAS		
0066_QC301_241113	WATER	13/11/2024		2 X 250ML PFAS		
0066_QC302_241113	WATER	13/11/2024		2 X 250ML PFAS		

PFASfull - PFASfull - Per- and Polyfluoroalkyl Substances (PFAS) - Trace

PFAS Short Suite Standard

HOLD

*Container Type and Preservative Codes:

P = Neutral Plastic; N = Nitric Acid Preserved; C = Sodium Hydroxide Preserved; J = Solvent Washed Jar; S = Solvent Washed Glass Bottle; VC = HCL Preserved Vial; PC = HCL Preserved Plastic; PS = Sulfuric Acid Preserved Plastic; BS = Sulfuric Acid Preserved Glass Bottle; Z = Zinc Acetate Preserved Bottle; ST = Sodium Thiosulphate Preserved Plastic; E = EDTA Preserved Bottles; ST = Sterile Bottle; O = Other.

Forward to envirolab for analysis

Forward to envirolab for analysis

Forward to envirolab for analysis

Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500

Job No: MPK0357

Date Received: 21/11/24

Time Received: 12:10

Received By: JS

Temp: Room Ambient

Cooling: Ice/coolpack

Security: Intact/Broken

DATE: 17/29/20/11/24
TIME: 15:20C
COURIER: YES
TEMPERATURE: YES
ATTEMPT TO CHILL: YES

Certificate of Analysis MFK0358

Client Details

Client JBS & G Australia Pty Ltd (Melbourne)
Contact [REDACTED]
Address 19/31 Queen St, MELBOURNE, VIC, 3000

Sample Details

Your Reference 66022
Number of Samples 5 Water
Date Samples Received 21/11/2024
Date Instructions Received 21/11/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for soils and on an as received basis for other matrices.

Report Details

Date Results Requested by 28/11/2024
Date of Issue 28/11/2024

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with *.

Authorisation Details

Results Approved By [REDACTED] Chemist

Laboratory Manager [REDACTED]

Certificate of Analysis MFK0358

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
MFK0358-01	0066_QC201_241119	Water	19/11/2024	21/11/2024
MFK0358-02	0066_QC203_241119	Water	19/11/2024	21/11/2024
MFK0358-03	0066_QC201_241118	Water	18/11/2024	21/11/2024
MFK0358-04	0066_QC202_241118	Water	18/11/2024	21/11/2024
MFK0358-05	0066_QC203_241118	Water	18/11/2024	21/11/2024

Sample Comments

General Comment	No attempt to cool was made. Envirolab strongly recommends cooling to <6° C (or an attempt to cool) when samples are transported to the laboratory.
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Certificate of Analysis MFK0358

PFAS Extended List (Trace Level) (Water) - Analysed By Envirolab Services Sydney

Envirolab ID Your Reference	Units	PQL	MFK0358-01 0066_QC201_2 41119	MFK0358-02 0066_QC203_2 41119	MFK0358-03 0066_QC201_2 41118	MFK0358-04 0066_QC202_2 41118
Date Sampled			19/11/2024	19/11/2024	18/11/2024	18/11/2024
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.00040	0.32	0.75	0.00041	<0.00040
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.0010	0.33	0.73	<0.0010	<0.0010
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.00020	2.1	3.9	0.0013	0.0017
Perfluoroheptanesulfonic acid (PFHpS)	µg/L	0.0010	0.18	0.20	<0.0010	<0.0010
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.00020	3.7	4.2	0.0019	0.0022
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.0020	<0.0020	<0.020	<0.0020	<0.0020
Perfluorobutanoic acid (PFBA)	µg/L	0.0020	0.24	0.76	<0.0020	<0.0020
Perfluoropentanoic acid (PFPeA)	µg/L	0.0020	0.28	0.97	<0.0020	<0.0020
Perfluorohexanoic acid (PFHxA)	µg/L	0.00040	1.2	4.9	<0.00040	<0.00040
Perfluoroheptanoic acid (PFHpA)	µg/L	0.00040	0.28	0.86	<0.00040	<0.00040
Perfluorooctanoic acid (PFOA)	µg/L	0.00020	1.1	1.4	<0.00020	<0.00020
Perfluorononanoic acid (PFNA)	µg/L	0.0010	0.055	0.044	<0.0010	<0.0010
Perfluorodecanoic acid (PFDA)	µg/L	0.0020	0.0074	<0.020	<0.0020	<0.0020
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.0020	<0.020	<0.020	<0.0020	<0.0020
Perfluorododecanoic acid (PFDoDA)	µg/L	0.0050	<0.0050	<0.050	<0.0050	<0.0050
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.010	<0.050	<0.10	<0.010	<0.020
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.050	<0.25	<0.50	<0.050	<0.10
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.0010	<0.0010	<0.010	<0.0010	<0.0010
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.00040	0.00075	<0.010	<0.00040	<0.00040
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.00040	0.00043	<0.020	<0.00040	<0.00040
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.0020	<0.0020	<0.020	<0.0020	<0.0020
Perfluorooctane sulfonamide (FOSA)	µg/L	0.010	0.021	<0.10	<0.010	<0.010
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.050	<0.050	<0.050	<0.050	<0.050
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.10	<0.10	<0.10	<0.10	<0.10
N-Methyl perfluorooctane sulfonamidoethanol	µg/L	0.050	<0.050	<0.050	<0.050	<0.050
N-Ethyl perfluorooctane sulfonamidoethanol	µg/L	0.50	<0.50	<0.50	<0.50	<0.50
N-Methyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	0.010	<0.020	<0.0020	<0.0020
N-Ethyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	0.0055	<0.020	<0.0020	<0.0020
Surrogate 13C8 PFOS	%		94.4	99.4	67.7	68.4
Surrogate 13C2 PFOA	%		133	94.2	104	96.8
Total +ve PFHxS+PFOS	µg/L	0.00020	5.8	8.1	0.0032	0.0039
Total +ve PFOA+PFOS	µg/L	0.00020	4.8	5.6	0.0019	0.0022
Total +ve PFAS	µg/L	0.00020	9.8	19	0.0036	0.0039
Extraction Internal Standard 13C3 PFBS	%		112	106	91.0	100
Extraction Internal Standard 18O2 PFHxS	%		119	116	119	118
Extraction Internal Standard 13C4 PFOS	%		114	114	95.0	100
Extraction Internal Standard 13C4 PFBA	%		68.0	58.0	67.0	70.0
Extraction Internal Standard 13C3 PFPeA	%		## [1]	111	69.0	75.0
Extraction Internal Standard 13C2 PFHxA	%		36.0 [1]	106	79.0	87.0
Extraction Internal Standard 13C4 PFHpA	%		34.0 [1]	115	91.0	101
Extraction Internal Standard 13C4 PFOA	%		36.0 [1]	102	82.0	93.0
Extraction Internal Standard 13C5 PFNA	%		31.0 [1]	113	74.0	81.0

Certificate of Analysis MFK0358

PFAS Extended List (Trace Level) (Water) - Analysed By Envirolab Services Sydney

Envirolab ID	Units	PQL	MFK0358-01	MFK0358-02	MFK0358-03	MFK0358-04
Your Reference			0066_QC201_2 41119	0066_QC203_2 41119	0066_QC201_2 41118	0066_QC202_2 41118
Date Sampled			19/11/2024	19/11/2024	18/11/2024	18/11/2024
Extraction Internal Standard 13C2 PFDA	%		79.0	133	65.0	69.0
Extraction Internal Standard 13C2 PFUnDA	%		## [1]	125	76.0	80.0
Extraction Internal Standard 13C2 PFDoDA	%		82.0	117	67.0	67.0
Extraction Internal Standard 13C2 PFTeDA	%		39.0 [1]	98.0	77.0	47.0 [1]
Extraction Internal Standard 13C2 4:2FTS	%		79.0	67.0	98.0	109
Extraction Internal Standard 13C2 6:2FTS	%		77.0	84.0	92.0	101
Extraction Internal Standard 13C2 8:2FTS	%		129	105	86.0	100
Extraction Internal Standard 13C8 FOSA	%		80.0	121	84.0	88.0
Extraction Internal Standard d3 N MeFOSA	%		127	127	130	130
Extraction Internal Standard d5 N EtFOSA	%		113	111	114	110
Extraction Internal Standard d7 N MeFOSE	%		130	136	140	141
Extraction Internal Standard d9 N EtFOSE	%		116	107	104	105
Extraction Internal Standard d3 N MeFOSAA	%		77.0	86.0	80.0	84.0
Extraction Internal Standard d5 N EtFOSAA	%		150	99.0	111	125

Certificate of Analysis MFK0358

Result Comments

Identifier	Description
[1]	For PFAS Extracted Internal Standards denoted with ## or being outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Certificate of Analysis MFK0358

Method Summary

Method ID	Methodology Summary
ORG-029	Soil/solid and sorbent samples are extracted with basified Methanol. Waters and soil/sorbent extracts are directly injected and/or concentrated/extracted using SPE. TCLP/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MSMS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

Certificate of Analysis MFK0358

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

Surrogate Spike

Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

LCS (Laboratory Control Sample)

This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Matrix Spike

A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

Certificate of Analysis MFK0358

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria. Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction. Spikes for Physical and Aggregate Tests are not applicable. For VOCs in water samples, three vials are required for duplicate or spike analysis.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% - see ELN-P05 QAQC tables for details (available on request); <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

Urine Analysis - The BEI values listed are taken from the 2022 edition of *TLVs and BEIs Threshold Limits by ACGIH*.

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary MFK0358

Client Details

Client	JBS & G Australia Pty Ltd (Melbourne)
Your Reference	66022
Date Issued	28/11/2024

Recommended Holding Time Compliance

No recommended holding time exceedances

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	Yes	No Outliers
Matrix Spike	Yes	No Outliers
Surrogates / Extracted Internal Standards	No	Surrogates / Extracted ISTD Outliers Exist - See detailed list below
QC Frequency	No	QC Frequency Outliers Exist - See detailed list below

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary MFK0358

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
PFAS EXT TR -ISTD Water	3-4	18/11/2024	28/11/2024	28/11/2024	Yes
	1-2	19/11/2024	28/11/2024	28/11/2024	Yes
PFAS-Extended TR Water	3-4	18/11/2024	28/11/2024	28/11/2024	Yes
	1-2	19/11/2024	28/11/2024	28/11/2024	Yes

Outliers: Surrogate / Extracted Internal Standards

ORG-029 | PFAS Extended List (Trace Level) (Matrix) | Batch BFK5207

Sample ID	Analyte	% Limits	% Recovery
MFK0358-01	Extraction Internal Standard 13C5 PFNA	50 - 150	31.0 [1]
	Extraction Internal Standard 13C4 PFOA	50 - 150	36.0 [1]
	Extraction Internal Standard 13C4 PFHpA	50 - 150	34.0 [1]
	Extraction Internal Standard 13C2 PFUnDA	50 - 150	## [1]
	Extraction Internal Standard 13C2 PFTeDA	50 - 150	39.0 [1]
	Extraction Internal Standard 13C2 PFHxA	50 - 150	36.0 [1]
MFK0358-04	Extraction Internal Standard 13C2 PFTeDA	50 - 150	47.0 [1]

Outliers: QC Frequency

ORG-029 | PFAS Extended List (Trace Level) (Water) | Batch BFK5207

Analysis	QC Type	Expected	Reported
PFAS EXT TR -ISTD	Duplicate	1	0
	Matrix Spike	1	0
PFAS-Extended TR	Duplicate	1	0
	Matrix Spike	1	0

Quality Control MFK0358

ORG-029 | PFAS Extended List (Trace Level) (Water) | Batch BFK5207

Analyte	Units	PQL	Blank	LCS %
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.00040	<0.00040	102
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.0010	<0.0010	90.3
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.00020	<0.00020	98.4
Perfluoroheptanesulfonic acid (PFHpS)	µg/L	0.0010	<0.0010	92.7
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.00020	<0.00020	86.1
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.0020	<0.0020	90.6
Perfluorobutanoic acid (PFBA)	µg/L	0.0020	<0.0020	98.8
Perfluoropentanoic acid (PFPeA)	µg/L	0.0020	<0.0020	96.9
Perfluorohexanoic acid (PFHxA)	µg/L	0.00040	<0.00040	101
Perfluoroheptanoic acid (PFHpA)	µg/L	0.00040	<0.00040	95.5
Perfluorooctanoic acid (PFOA)	µg/L	0.00020	<0.00020	93.9
Perfluorononanoic acid (PFNA)	µg/L	0.0010	<0.0010	99.0
Perfluorodecanoic acid (PFDA)	µg/L	0.0020	<0.0020	103
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.0020	<0.0020	90.3
Perfluorododecanoic acid (PFDoDA)	µg/L	0.0050	<0.0050	99.2
Perfluorotridecanoic acid (PFTriDA)	µg/L	0.010	<0.010	72.5
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.050	<0.050	103
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.0010	<0.0010	102
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.00040	<0.00040	113
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.00040	<0.00040	89.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.0020	<0.0020	123
Perfluorooctane sulfonamide (FOSA)	µg/L	0.010	<0.010	103
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.050	<0.050	104
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.10	<0.10	99.3
N-Methyl perfluorooctane sulfonamidoethanol	µg/L	0.050	<0.050	98.8
N-Ethyl perfluorooctane sulfonamidoethanol	µg/L	0.50	<0.50	104
N-Methyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	97.9
N-Ethyl perfluorooctane sulfonamidoacetic acid	µg/L	0.0020	<0.0020	99.2
Surrogate 13C8 PFOS	%		99.4	87.8
Surrogate 13C2 PFOA	%		100	101
Extraction Internal Standard 13C3 PFBS	%		88.0	[NA]
Extraction Internal Standard 18O2 PFHxS	%		86.0	[NA]
Extraction Internal Standard 13C4 PFOS	%		82.0	[NA]
Extraction Internal Standard 13C4 PFBA	%		93.0	[NA]
Extraction Internal Standard 13C3 PFPeA	%		92.0	[NA]
Extraction Internal Standard 13C2 PFHxA	%		85.0	[NA]
Extraction Internal Standard 13C4 PFHpA	%		89.0	[NA]
Extraction Internal Standard 13C4 PFOA	%		93.0	[NA]
Extraction Internal Standard 13C5 PFNA	%		88.0	[NA]
Extraction Internal Standard 13C2 PFDA	%		79.0	[NA]
Extraction Internal Standard 13C2 PFUnDA	%		88.0	[NA]
Extraction Internal Standard 13C2 PFDoDA	%		89.0	[NA]
Extraction Internal Standard 13C2 PFTeDA	%		57.0	[NA]
Extraction Internal Standard 13C2 4:2FTS	%		84.0	[NA]
Extraction Internal Standard 13C2 6:2FTS	%		90.0	[NA]
Extraction Internal Standard 13C2 8:2FTS	%		81.0	[NA]
Extraction Internal Standard 13C8 FOSA	%		91.0	[NA]
Extraction Internal Standard d3 N MeFOSA	%		127	[NA]
Extraction Internal Standard d5 N EtFOSA	%		124	[NA]
Extraction Internal Standard d7 N MeFOSE	%		129	[NA]
Extraction Internal Standard d9 N EtFOSE	%		120	[NA]
Extraction Internal Standard d3 N MeFOSAA	%		81.0	[NA]
Extraction Internal Standard d5 N EtFOSAA	%		105	[NA]

Appendix D Photos of Damaged Wells

MW017



MW206



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Appendix F Mann-Kendall analysis results

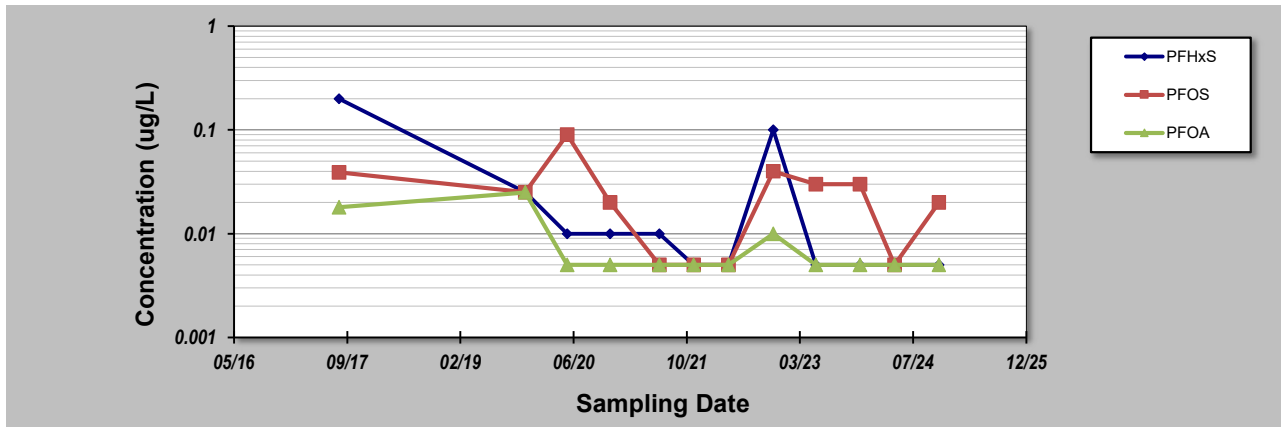
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW001**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.2	0.039	0.018				
2	18 Nov 2019	0.025	0.025	0.025				
3	21 May 2020	0.01	0.09	0.005				
4	26 Nov 2020	0.01	0.02	0.005				
5	02 Jul 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.005	0.005	0.005				
7	04 May 2022	0.005	0.005	0.005				
8	17 Nov 2022	0.1	0.04	0.01				
9	24 May 2023	0.005	0.03	0.005				
10	06 Dec 2023	0.005	0.03	0.005				
11	06 May 2024	0.005	0.005	0.005				
12	18 Nov 2024	0.005	0.02	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.85	0.92	0.80				
Mann-Kendall Statistic (S):		-36	-14	-18				
Confidence Factor:		99.3%	81.0%	87.5%				
Concentration Trend:		Decreasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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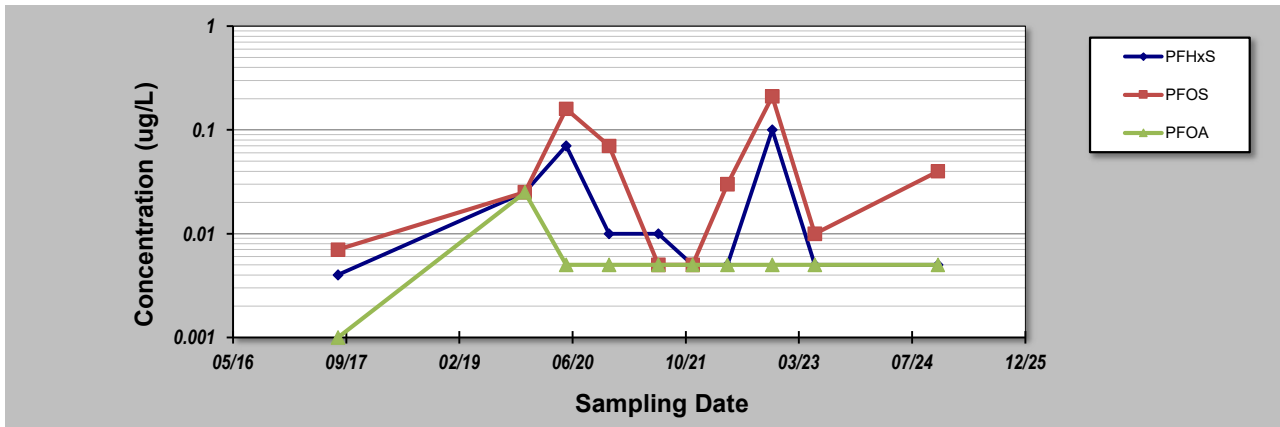
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW002**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.004	0.007	0.001				
2	20 Nov 2019	0.025	0.025	0.025				
3	21 May 2020	0.07	0.16	0.005				
4	26 Nov 2020	0.01	0.07	0.005				
5	02 Jul 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.005	0.005	0.005				
7	04 May 2022	0.005	0.03	0.005				
8	17 Nov 2022	0.1	0.21	0.005				
9	24 May 2023	0.005	0.01	0.005				
10	18 Nov 2024	0.005	0.04	0.005				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.40	1.28	1.00				
Mann-Kendall Statistic (S):		-6	6	1				
Confidence Factor:		66.8%	66.8%	50.0%				
Concentration Trend:		No Trend	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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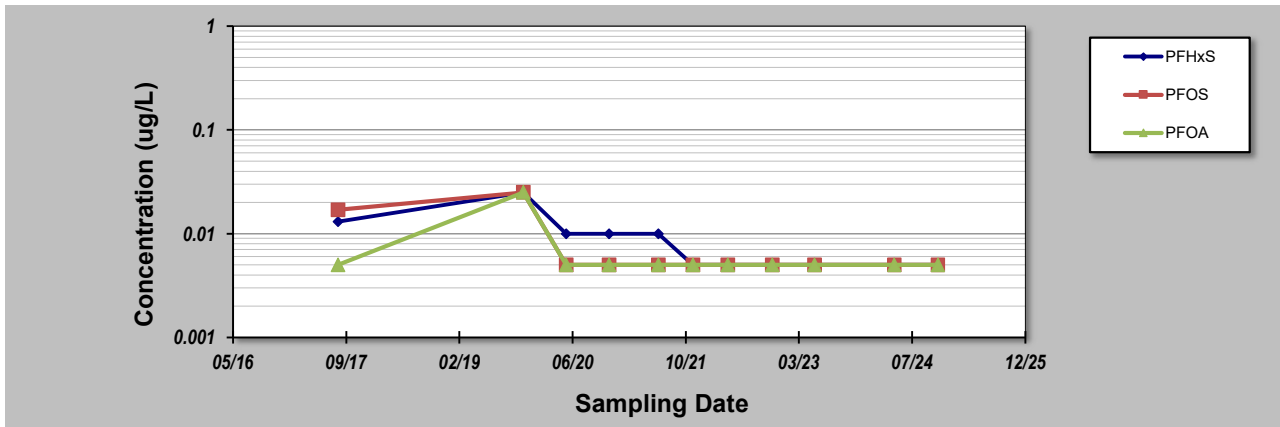
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW003**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.013	0.017	0.005				
2	14 Nov 2019	0.025	0.025	0.025				
3	21 May 2020	0.01	0.005	0.005				
4	26 Nov 2020	0.01	0.005	0.005				
5	02 Jul 2021	0.01	0.005	0.005				
6	02 Dec 2021	0.005	0.005	0.005				
7	05 May 2022	0.005	0.005	0.005				
8	17 Nov 2022	0.005	0.005	0.005				
9	23 May 2023	0.005	0.005	0.005				
10	09 May 2024	0.005	0.005	0.005				
11	18 Nov 2024	0.005	0.005	0.005				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.68	0.85	0.88				
Mann-Kendall Statistic (S):		-35	-17	-8				
Confidence Factor:		99.7%	89.1%	70.3%				
Concentration Trend:		Decreasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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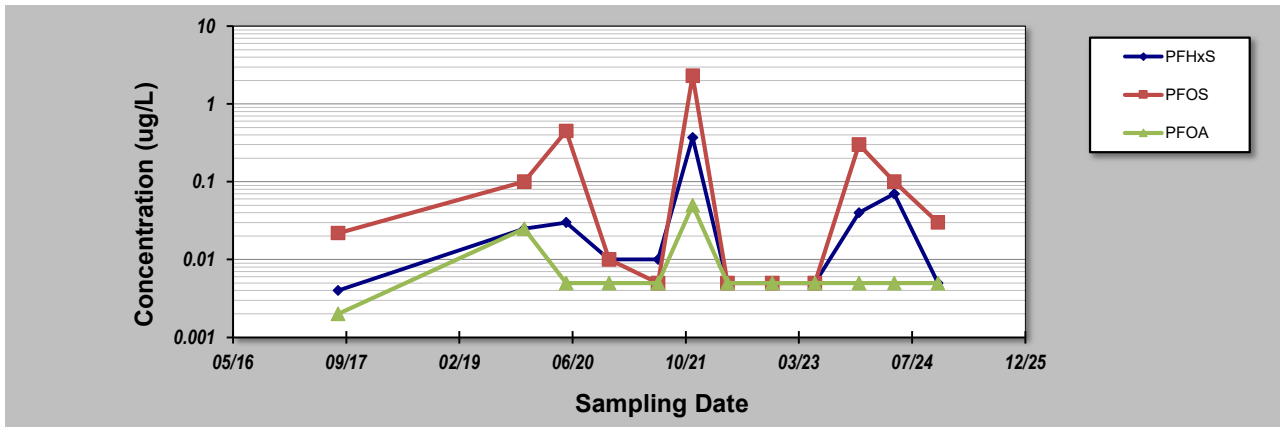
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW005**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	18 Aug 2017	0.004	0.022	0.002				
2	18 Nov 2019	0.025	0.1	0.025				
3	21 May 2020	0.03	0.45	0.005				
4	26 Nov 2020	0.01	0.01	0.005				
5	30 Jun 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.37	2.31	0.05				
7	04 May 2022	0.005	0.005	0.005				
8	17 Nov 2022	0.005	0.005	0.005				
9	24 May 2023	0.005	0.005	0.005				
10	06 Dec 2023	0.04	0.3	0.005				
11	09 May 2024	0.07	0.1	0.005				
12	18 Nov 2024	0.005	0.03	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		2.14	2.35	1.36				
Mann-Kendall Statistic (S):		3	-5	0				
Confidence Factor:		55.4%	60.6%	47.3%				
Concentration Trend:		No Trend	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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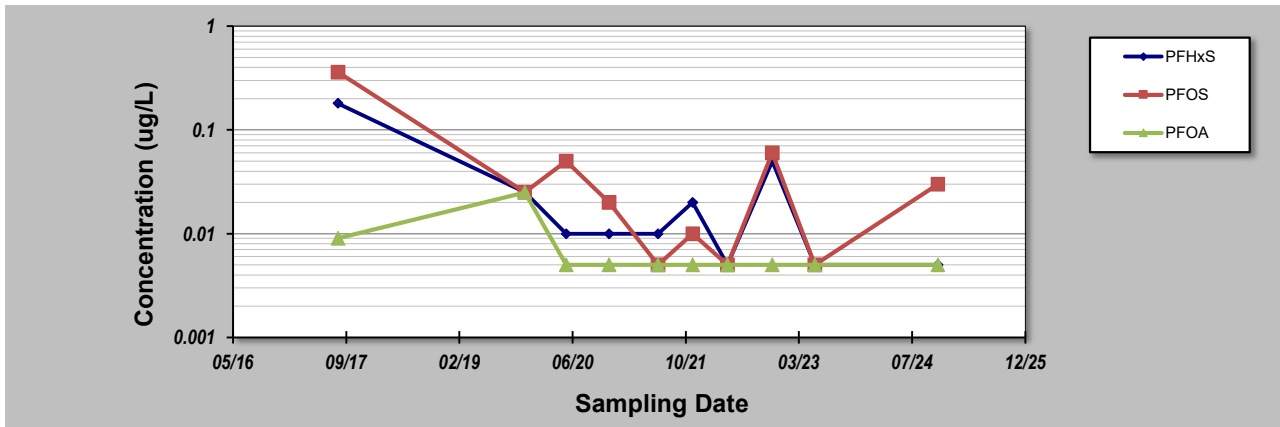
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW006**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.18	0.36	0.009				
2	20 Nov 2019	0.025	0.025	0.025				
3	21 May 2020	0.01	0.05	0.005				
4	26 Nov 2020	0.01	0.02	0.005				
5	30 Jun 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.02	0.01	0.005				
7	04 May 2022	0.005	0.005	0.005				
8	17 Nov 2022	0.05	0.06	0.005				
9	24 May 2023	0.005	0.005	0.005				
10	18 Nov 2024	0.005	0.03	0.005				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.68	1.90	0.85				
Mann-Kendall Statistic (S):		-21	-14	-15				
Confidence Factor:		96.4%	87.3%	89.2%				
Concentration Trend:		Decreasing	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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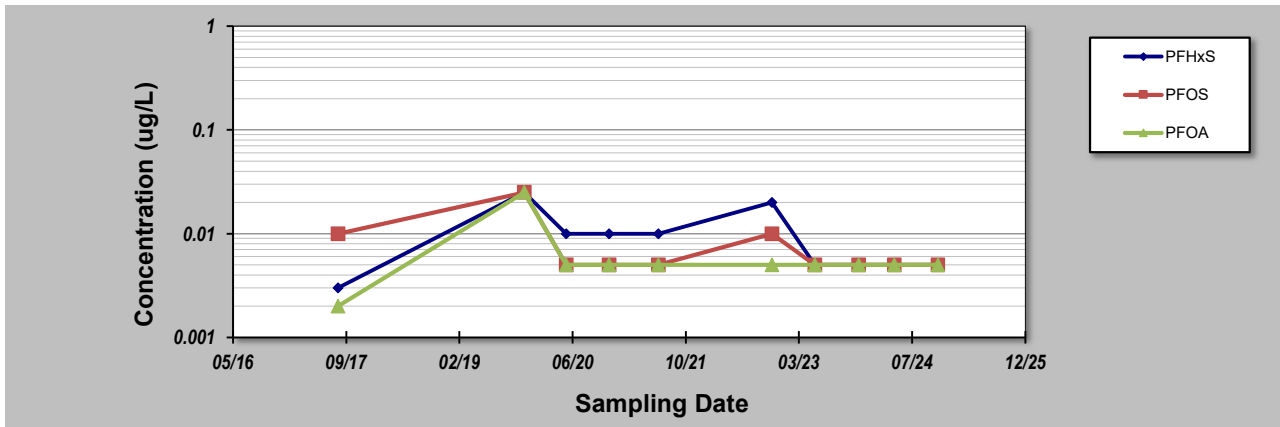
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW007**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.003	0.01	0.002				
2	18 Nov 2019	0.025	0.025	0.025				
3	21 May 2020	0.01	0.005	0.005				
4	26 Nov 2020	0.01	0.005	0.005				
5	02 Jul 2021	0.01	0.005	0.005				
6	16 Nov 2022	0.02	0.01	0.005				
7	24 May 2023	0.005	0.005	0.005				
8	04 Dec 2023	0.005	0.005	0.005				
9	09 May 2024	0.005	0.005	0.005				
10	18 Nov 2024	0.005	0.005	0.005				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.74	0.79	0.97				
Mann-Kendall Statistic (S):		-12	-15	1				
Confidence Factor:		83.2%	89.2%	50.0%				
Concentration Trend:		Stable	Stable	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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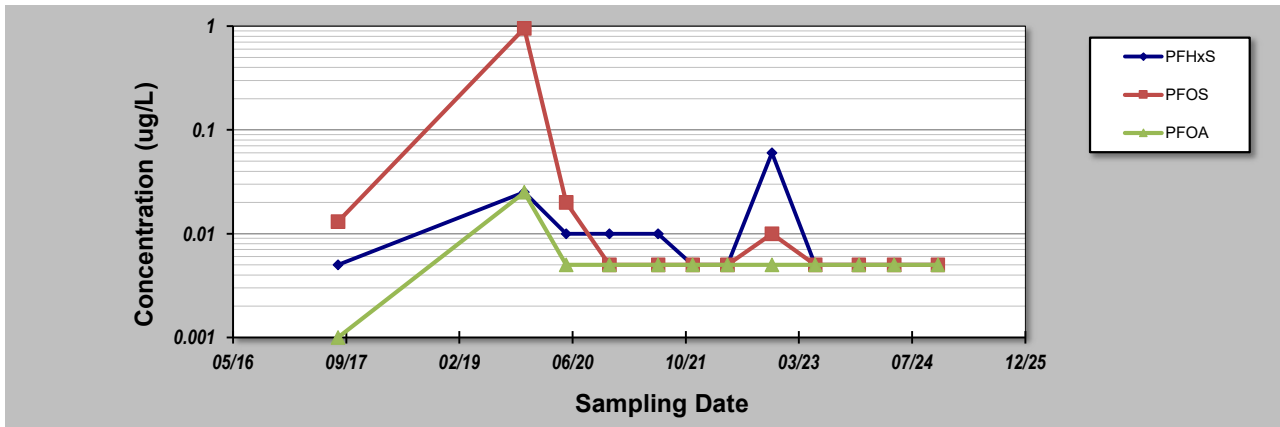
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-SW009**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.005	0.013	0.001				
2	18 Nov 2019	0.025	0.95	0.025				
3	21 May 2020	0.01	0.02	0.005				
4	27 Nov 2020	0.01	0.005	0.005				
5	01 Jul 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.005	0.005	0.005				
7	04 May 2022	0.005	0.005	0.005				
8	16 Nov 2022	0.06	0.01	0.005				
9	26 May 2023	0.005	0.005	0.005				
10	05 Dec 2023	0.005	0.005	0.005				
11	08 May 2024	0.005	0.005	0.005				
12	18 Nov 2024	0.005	0.005	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.28	3.16	0.95				
Mann-Kendall Statistic (S):		-20	-26	1				
Confidence Factor:		90.2%	95.7%	50.0%				
Concentration Trend:		Prob. Decreasing	Decreasing	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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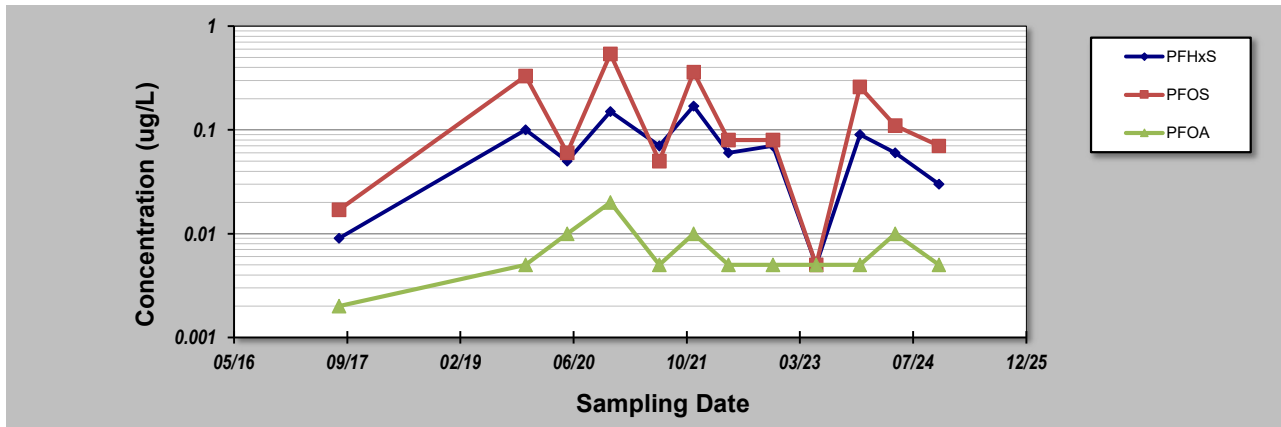
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for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW010**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17 Aug 2017	0.009	0.017	0.002				
2	19 Nov 2019	0.1	0.33	0.005				
3	21 May 2020	0.05	0.06	0.01				
4	27 Nov 2020	0.15	0.54	0.02				
5	02 Jul 2021	0.07	0.05	0.005				
6	01 Dec 2021	0.17	0.36	0.01				
7	04 May 2022	0.06	0.08	0.005				
8	16 Nov 2022	0.07	0.08	0.005				
9	26 May 2023	0.005	0.005	0.005				
10	05 Dec 2023	0.09	0.26	0.005				
11	08 May 2024	0.06	0.11	0.01				
12	18 Nov 2024	0.03	0.07	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.70	1.03	0.66				
Mann-Kendall Statistic (S):		-8	-1	2				
Confidence Factor:		68.1%	50.0%	52.7%				
Concentration Trend:		Stable	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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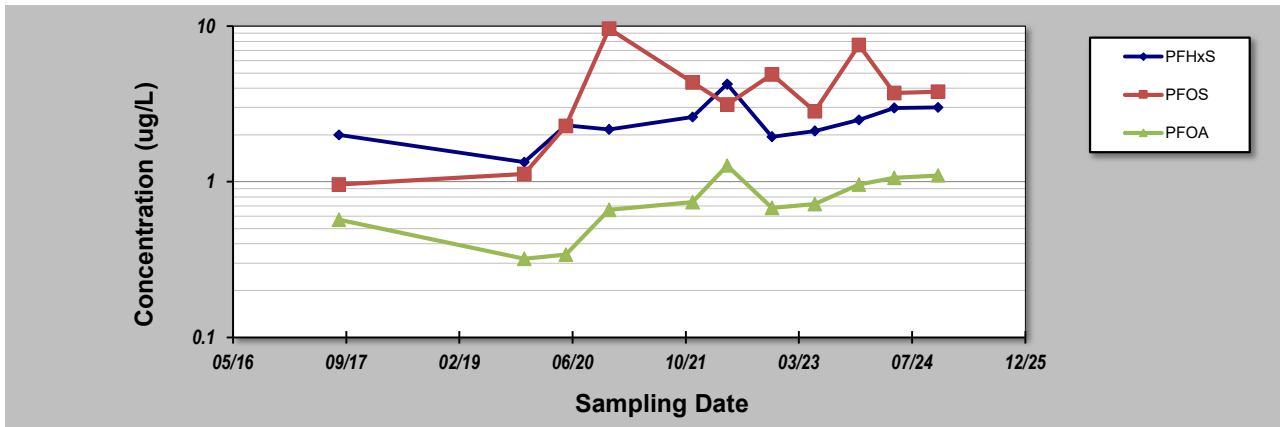
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW014**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	2	0.96	0.57				
2	18 Nov 2019	1.34	1.12	0.32				
3	19 May 2020	2.3	2.29	0.34				
4	26 Nov 2020	2.17	9.63	0.66				
5	30 Nov 2021	2.61	4.36	0.74				
6	03 May 2022	4.24	3.14	1.27				
7	16 Nov 2022	1.95	4.89	0.68				
8	24 May 2023	2.12	2.83	0.72				
9	05 Dec 2023	2.5	7.56	0.96				
10	09 May 2024	2.98	3.72	1.06				
11	19 Nov 2024	3	3.8	1.1				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.31	0.65	0.40				
Mann-Kendall Statistic (S):		25	21	37				
Confidence Factor:		97.0%	94.0%	99.8%				
Concentration Trend:		Increasing	Prob. Increasing	Increasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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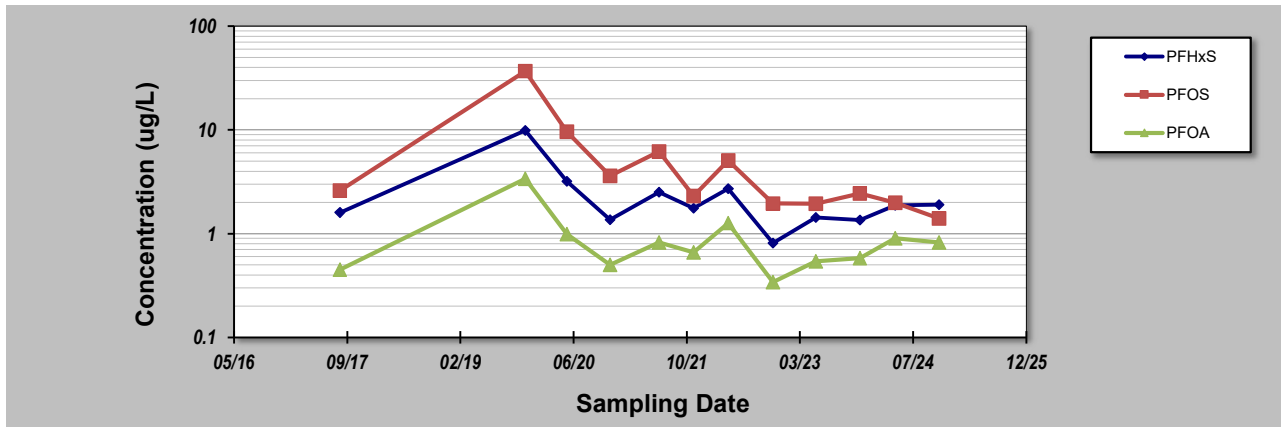
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-SW015**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	1.6	2.6	0.45				
2	18 Nov 2019	9.88	36.9	3.39				
3	19 May 2020	3.19	9.62	0.99				
4	26 Nov 2020	1.36	3.6	0.5				
5	30 Jun 2021	2.51	6.21	0.82				
6	30 Nov 2021	1.76	2.31	0.66				
7	03 May 2022	2.7	5.07	1.26				
8	16 Nov 2022	0.81	1.95	0.34				
9	24 May 2023	1.43	1.94	0.54				
10	05 Dec 2023	1.35	2.44	0.58				
11	09 May 2024	1.88	1.98	0.9				
12	19 Nov 2024	1.9	1.4	0.82				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.95	1.57	0.87				
Mann-Kendall Statistic (S):		-14	-40	-1				
Confidence Factor:		81.0%	99.7%	50.0%				
Concentration Trend:		Stable	Decreasing	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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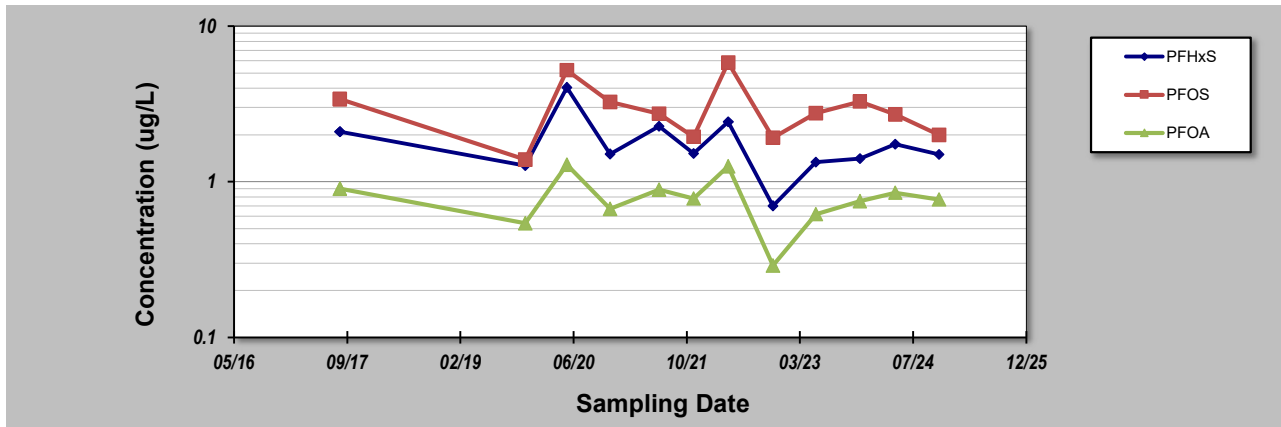
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW016**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	2.1	3.4	0.9				
2	21 Aug 2017	2.1	3.4	0.9				
3	18 Nov 2019	1.27	1.39	0.54				
4	19 May 2020	4.04	5.21	1.29				
5	26 Nov 2020	1.51	3.26	0.67				
6	30 Jun 2021	2.27	2.74	0.89				
7	30 Nov 2021	1.52	1.95	0.78				
8	03 May 2022	2.43	5.83	1.26				
9	16 Nov 2022	0.7	1.92	0.29				
10	24 May 2023	1.34	2.76	0.62				
11	05 Dec 2023	1.41	3.28	0.75				
12	09 May 2024	1.74	2.71	0.85				
13	19 Nov 2024	1.5	2	0.77				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.44	0.41	0.33				
Mann-Kendall Statistic (S):		-15	-17	-15				
Confidence Factor:		79.9%	83.2%	79.9%				
Concentration Trend:		Stable	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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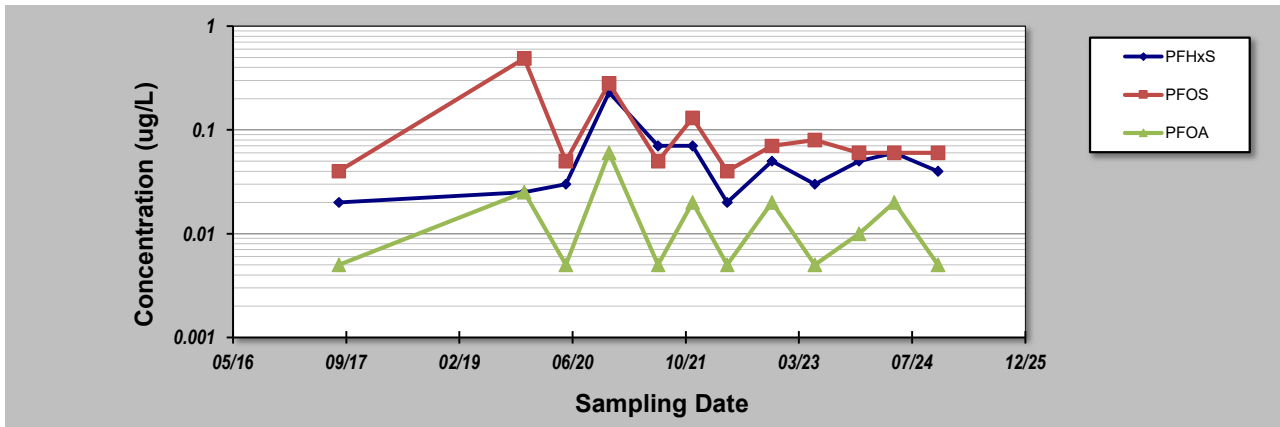
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-SW017**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	0.02	0.04	0.005				
2	18 Nov 2019	0.025	0.49	0.025				
3	19 May 2020	0.03	0.05	0.005				
4	26 Nov 2020	0.23	0.28	0.06				
5	01 Jul 2021	0.07	0.05	0.005				
6	30 Nov 2021	0.07	0.13	0.02				
7	03 May 2022	0.02	0.04	0.005				
8	16 Nov 2022	0.05	0.07	0.02				
9	24 May 2023	0.03	0.08	0.005				
10	06 Dec 2023	0.05	0.06	0.01				
11	09 May 2024	0.06	0.06	0.02				
12	19 Nov 2024	0.04	0.06	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.99	1.15	1.04				
Mann-Kendall Statistic (S):		10	-3	-4				
Confidence Factor:		72.7%	55.4%	58.0%				
Concentration Trend:		No Trend	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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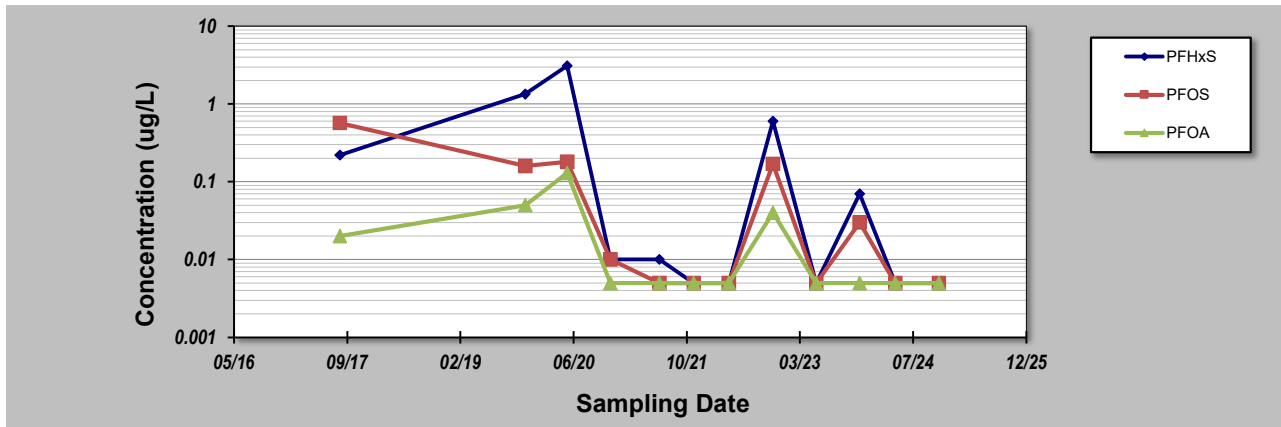
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW018**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	0.22	0.57	0.02				
2	18 Nov 2019	1.34	0.16	0.05				
3	21 May 2020	3.11	0.18	0.13				
4	27 Nov 2020	0.01	0.01	0.005				
5	02 Jul 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.005	0.005	0.005				
7	05 May 2022	0.005	0.005	0.005				
8	16 Nov 2022	0.6	0.17	0.04				
9	26 May 2023	0.005	0.005	0.005				
10	04 Dec 2023	0.07	0.03	0.005				
11	09 May 2024	0.005	0.005	0.005				
12	18 Nov 2024	0.005	0.005	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		2.07	1.73	1.59				
Mann-Kendall Statistic (S):		-29	-29	-22				
Confidence Factor:		97.4%	97.4%	92.4%				
Concentration Trend:		Decreasing	Decreasing	Prob. Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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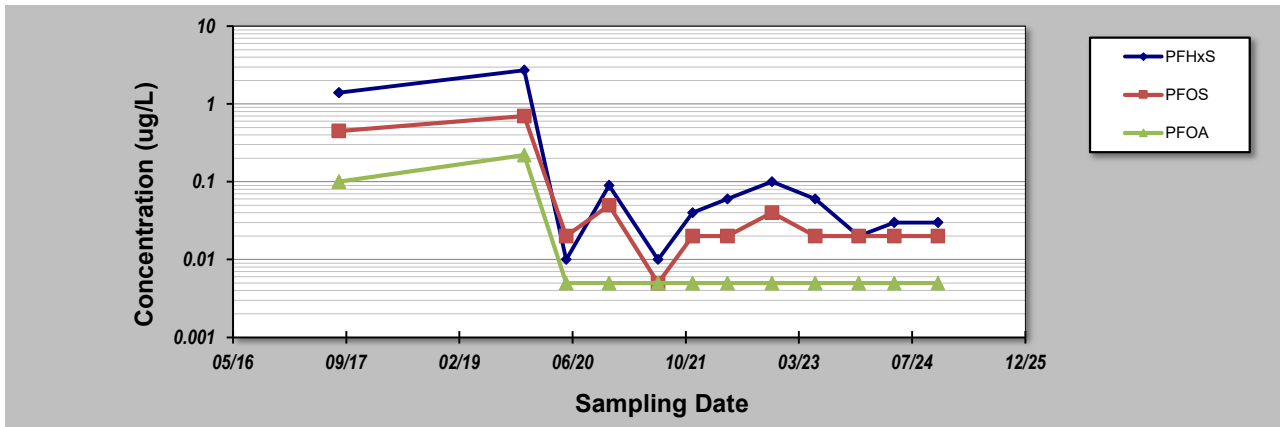
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW019**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	1.4	0.45	0.1				
2	21 Aug 2017	1.4	0.45	0.1				
3	18 Nov 2019	2.72	0.7	0.22				
4	21 May 2020	0.01	0.02	0.005				
5	26 Nov 2020	0.09	0.05	0.005				
6	30 Jun 2021	0.01	0.005	0.005				
7	30 Nov 2021	0.04	0.02	0.005				
8	04 May 2022	0.06	0.02	0.005				
9	16 Nov 2022	0.1	0.04	0.005				
10	25 May 2023	0.06	0.02	0.005				
11	04 Dec 2023	0.02	0.02	0.005				
12	09 May 2024	0.03	0.02	0.005				
13	18 Nov 2024	0.03	0.02	0.005				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.84	1.64	1.81				
Mann-Kendall Statistic (S):		-26	-30	-28				
Confidence Factor:		93.6%	96.2%	95.0%				
Concentration Trend:		Prob. Decreasing	Decreasing	Prob. Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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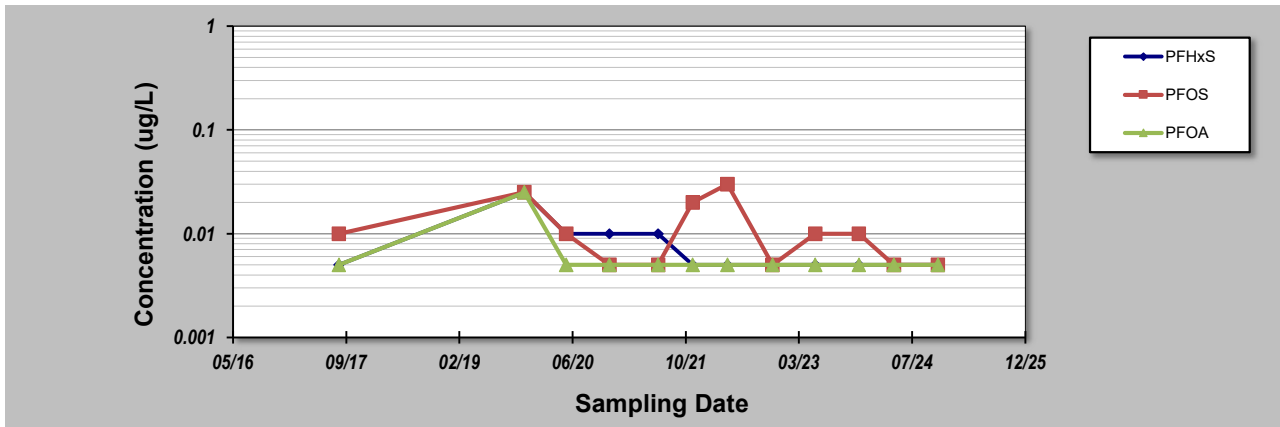
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW020**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Aug 2017	0.005	0.01	0.005				
2	18 Nov 2019	0.025	0.025	0.025				
3	21 May 2020	0.01	0.01	0.005				
4	27 Nov 2020	0.01	0.005	0.005				
5	01 Jul 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.005	0.02	0.005				
7	04 May 2022	0.005	0.03	0.005				
8	18 Nov 2022	0.005	0.005	0.005				
9	26 May 2023	0.005	0.01	0.005				
10	05 Dec 2023	0.005	0.01	0.005				
11	07 May 2024	0.005	0.005	0.005				
12	18 Nov 2024	0.005	0.005	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.74	0.74	0.87				
Mann-Kendall Statistic (S):		-27	-16	-9				
Confidence Factor:		96.3%	84.5%	70.4%				
Concentration Trend:		Decreasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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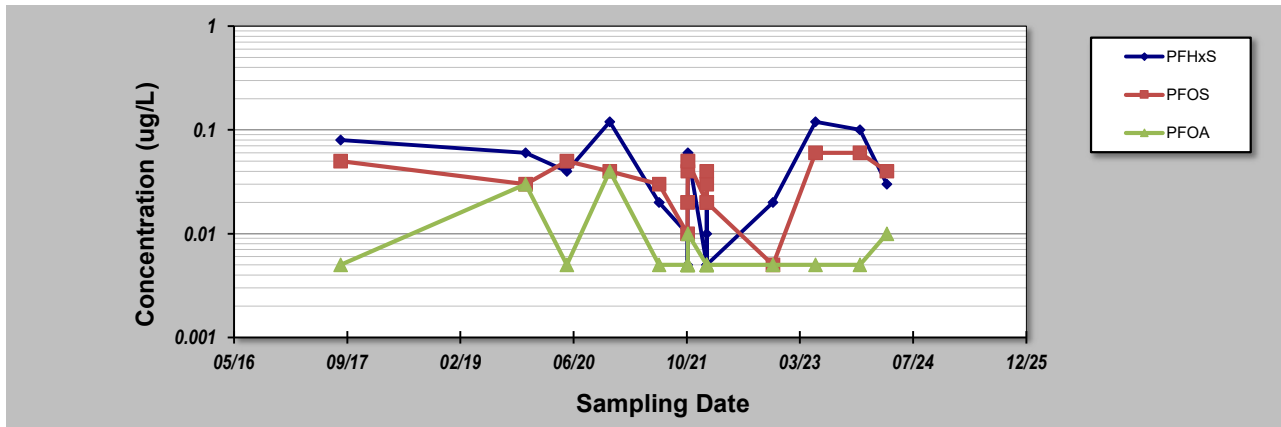
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW021**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	24 Aug 2017	0.08	0.05	0.005				
2	19 Nov 2019	0.06	0.03	0.03				
3	19 May 2020	0.04	0.05	0.005				
4	25 Nov 2020	0.12	0.04	0.04				
5	01 Jul 2021	0.02	0.03	0.005				
6	03 Nov 2021	0.01	0.01	0.005				
7	03 Nov 2021	0.005	0.02	0.005				
8	04 Nov 2021	0.05	0.04	0.005				
9	04 Nov 2021	0.05	0.05	0.005				
10	05 Nov 2021	0.06	0.05	0.01				
11	27 Jan 2022	0.005	0.02	0.005				
12	27 Jan 2022	0.01	0.03	0.005				
13	27 Jan 2022	0.02	0.04	0.005				
14	28 Jan 2022	0.005	0.02	0.005				
15	16 Nov 2022	0.02	0.005	0.005				
16	23 May 2023	0.12	0.06	0.005				
17	05 Dec 2023	0.1	0.06	0.005				
18	02 Apr 2024	0.03	0.04	0.01				
19								
20								
Coefficient of Variation:		0.86	0.45	1.10				
Mann-Kendall Statistic (S):		-15	2	-11				
Confidence Factor:		70.0%	51.5%	64.6%				
Concentration Trend:		Stable	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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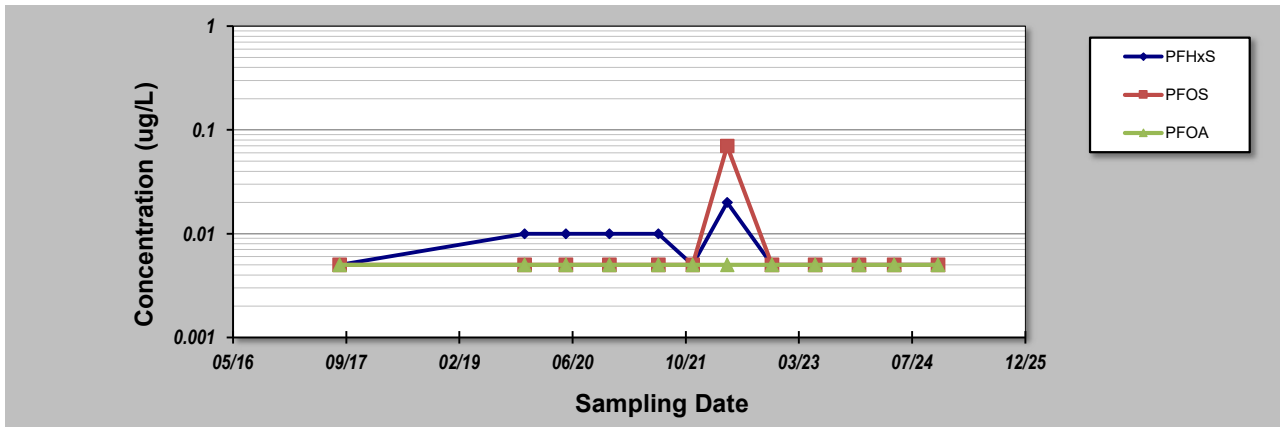
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW022**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	24 Aug 2017	0.005	0.005	0.005				
2	19 Nov 2019	0.01	0.005	0.005				
3	19 May 2020	0.01	0.005	0.005				
4	27 Nov 2020	0.01	0.005	0.005				
5	02 Jul 2021	0.01	0.005	0.005				
6	01 Dec 2021	0.005	0.005	0.005				
7	03 May 2022	0.02	0.07	0.005				
8	16 Nov 2022	0.005	0.005	0.005				
9	25 May 2023	0.005	0.005	0.005				
10	06 Dec 2023	0.005	0.005	0.005				
11	08 May 2024	0.005	0.005	0.005				
12	19 Nov 2024	0.005	0.005	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.57	1.80	0.00				
Mann-Kendall Statistic (S):		-19	1	0				
Confidence Factor:		88.9%	50.0%	47.3%				
Concentration Trend:		Stable	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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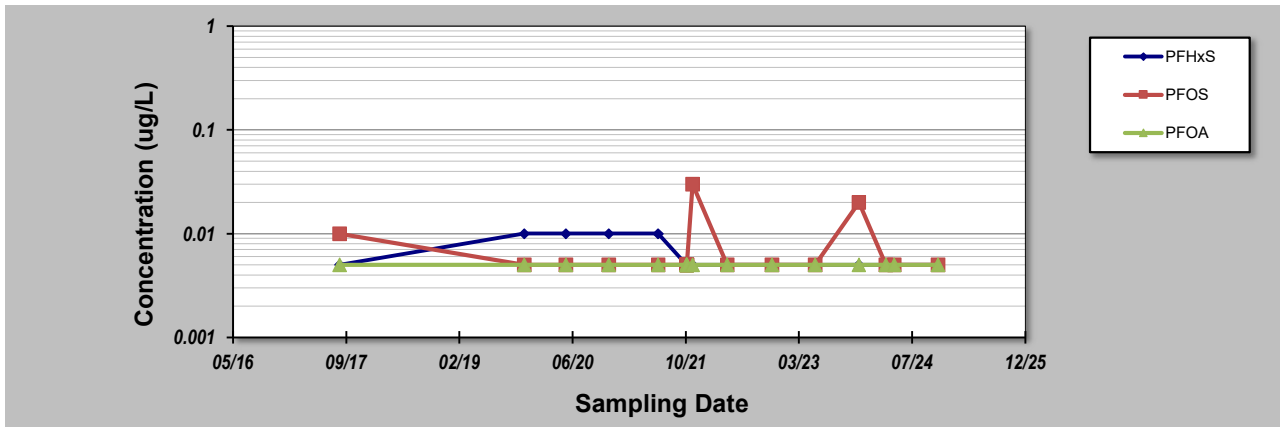
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW023**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	24 Aug 2017	0.005	0.01	0.005				
2	18 Nov 2019	0.01	0.005	0.005				
3	19 May 2020	0.01	0.005	0.005				
4	25 Nov 2020	0.01	0.005	0.005				
5	01 Jul 2021	0.01	0.005	0.005				
6	03 Nov 2021	0.005	0.005	0.005				
7	03 Nov 2021	0.005	0.005	0.005				
8	04 Nov 2021	0.005	0.005	0.005				
9	04 Nov 2021	0.005	0.005	0.005				
10	05 Nov 2021	0.005	0.005	0.005				
11	30 Nov 2021	0.005	0.03	0.005				
12	03 May 2022	0.005	0.005	0.005				
13	16 Nov 2022	0.005	0.005	0.005				
14	25 May 2023	0.005	0.005	0.005				
15	05 Dec 2023	0.005	0.02	0.005				
16	02 Apr 2024	0.005	0.005	0.005				
17	09 May 2024	0.005	0.005	0.005				
18	19 Nov 2024	0.005	0.005	0.005				
19								
20								
Coefficient of Variation:		0.35	0.89	0.00				
Mann-Kendall Statistic (S):		-48	-2	0				
Confidence Factor:		96.3%	51.5%	48.5%				
Concentration Trend:		Decreasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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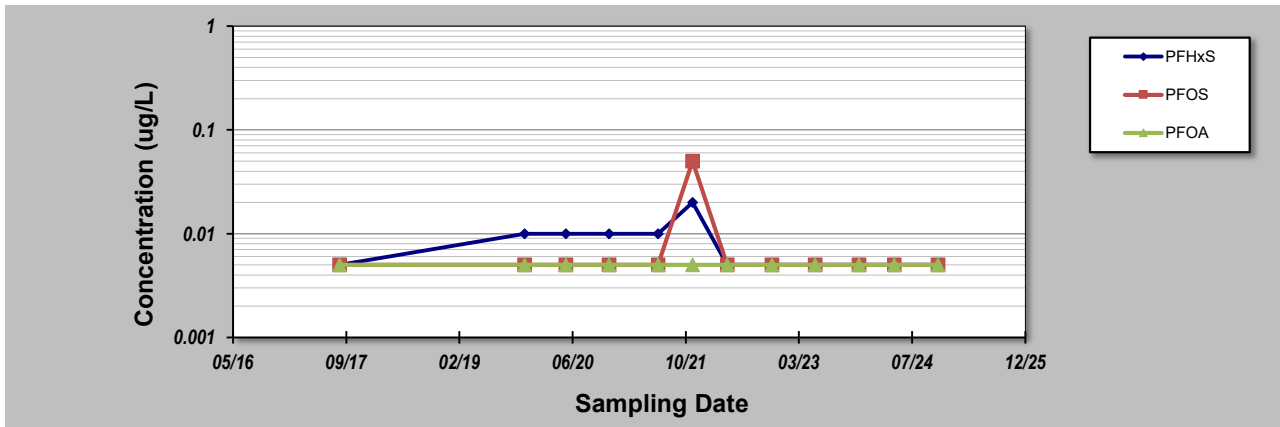
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW024**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	24 Aug 2017	0.005	0.005	0.005				
2	19 Nov 2019	0.01	0.005	0.005				
3	19 May 2020	0.01	0.005	0.005				
4	26 Nov 2020	0.01	0.005	0.005				
5	01 Jul 2021	0.01	0.005	0.005				
6	30 Nov 2021	0.02	0.05	0.005				
7	03 May 2022	0.005	0.005	0.005				
8	16 Nov 2022	0.005	0.005	0.005				
9	25 May 2023	0.005	0.005	0.005				
10	06 Dec 2023	0.005	0.005	0.005				
11	09 May 2024	0.005	0.005	0.005				
12	19 Nov 2024	0.005	0.005	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.57	1.48	0.00				
Mann-Kendall Statistic (S):		-21	-1	0				
Confidence Factor:		91.3%	50.0%	47.3%				
Concentration Trend:		Prob. Decreasing	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

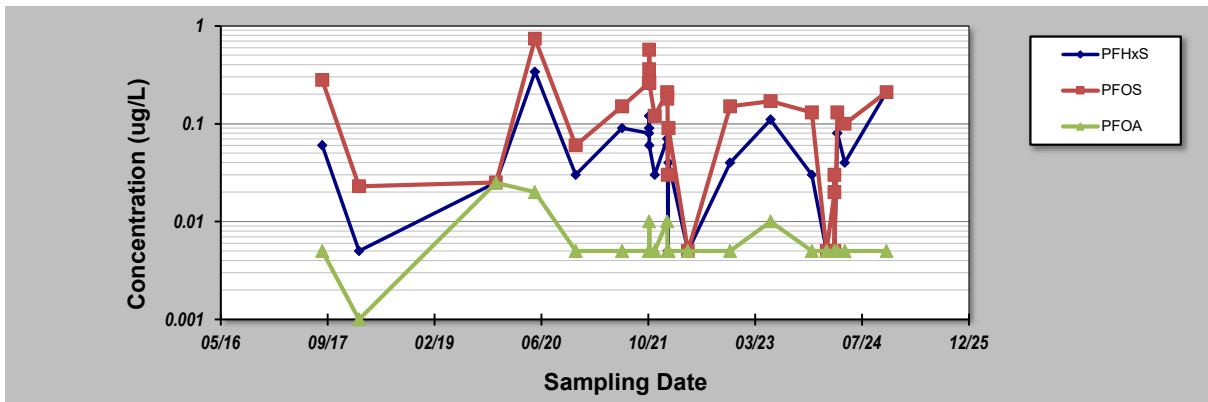
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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: 28-Apr-25	Job ID: 0066-SW027
Facility Name: HMAS Cerberus	Constituent: PFAS
Conducted By: [REDACTED]	Concentration Units: ug/L

Sampling Point ID:		PFHxS	PFOS	PFOA			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)					
1	28 Aug 2017	0.06	0.28	0.005			
2	16 Feb 2018	0.005	0.023	0.001			
3	18 Nov 2019	0.025	0.025	0.025			
4	19 May 2020	0.34	0.74	0.02			
5	26 Nov 2020	0.03	0.06	0.005			
6	01 Jul 2021	0.09	0.15	0.005			
7	03 Nov 2021	0.08	0.26	0.005			
8	04 Nov 2021	0.09	0.36	0.005			
9	04 Nov 2021	0.12	0.57	0.01			
10	05 Nov 2021	0.06	0.26	0.005			
11	30 Nov 2021	0.03	0.12	0.005			
12	27 Jan 2022	0.07	0.21	0.01			
13	28 Jan 2022	0.06	0.18	0.005			
14	31 Jan 2022	0.005	0.03	0.005			
15	03 Feb 2022	0.04	0.09	0.005			
16	04 May 2022	0.005	0.005	0.005			
17	18 Nov 2022	0.04	0.15	0.005			
18	26 May 2023	0.11	0.17	0.01			
19	05 Dec 2023	0.03	0.13	0.005			
20	13 Feb 2024	0.005	0.005	0.005			
21	20 Mar 2024	0.005	0.02	0.005			
22	20 Mar 2024	0.02	0.03	0.005			
23	20 Mar 2024	0.005	0.005	0.005			
24	02 Apr 2024	0.08	0.13	0.005			
25	07 May 2024	0.04	0.1	0.005			
26	18 Nov 2024	0.21	0.21	0.005			
27							
28							
29							
30							
Coefficient of Variation:		1.15	1.06	0.74			
Mann-Kendall Statistic (S):		-43	-81	-32			
Confidence Factor:		82.1%	96.1%	75.1%			
Concentration Trend:		No Trend	Decreasing	Stable			



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
 - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0); >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90% and S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
 - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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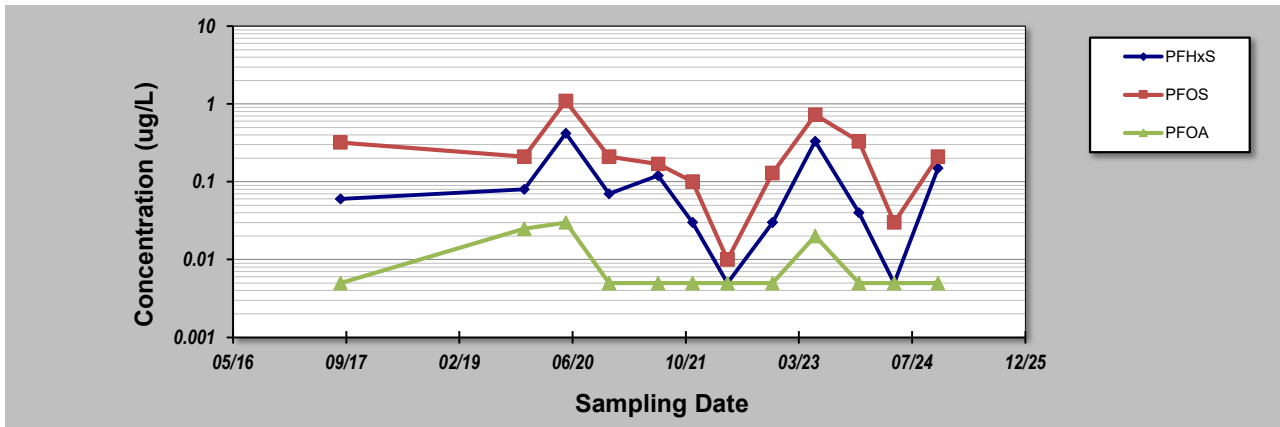
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW028**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	28 Aug 2017	0.06	0.32	0.005				
2	18 Nov 2019	0.08	0.21	0.025				
3	19 May 2020	0.42	1.09	0.03				
4	26 Nov 2020	0.07	0.21	0.005				
5	01 Jul 2021	0.12	0.17	0.005				
6	30 Nov 2021	0.03	0.1	0.005				
7	04 May 2022	0.005	0.01	0.005				
8	18 Nov 2022	0.03	0.13	0.005				
9	26 May 2023	0.33	0.73	0.02				
10	05 Dec 2023	0.04	0.33	0.005				
11	08 May 2024	0.005	0.03	0.005				
12	18 Nov 2024	0.15	0.21	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.18	1.06	0.93				
Mann-Kendall Statistic (S):		-10	-15	-12				
Confidence Factor:		72.7%	82.8%	77.0%				
Concentration Trend:		No Trend	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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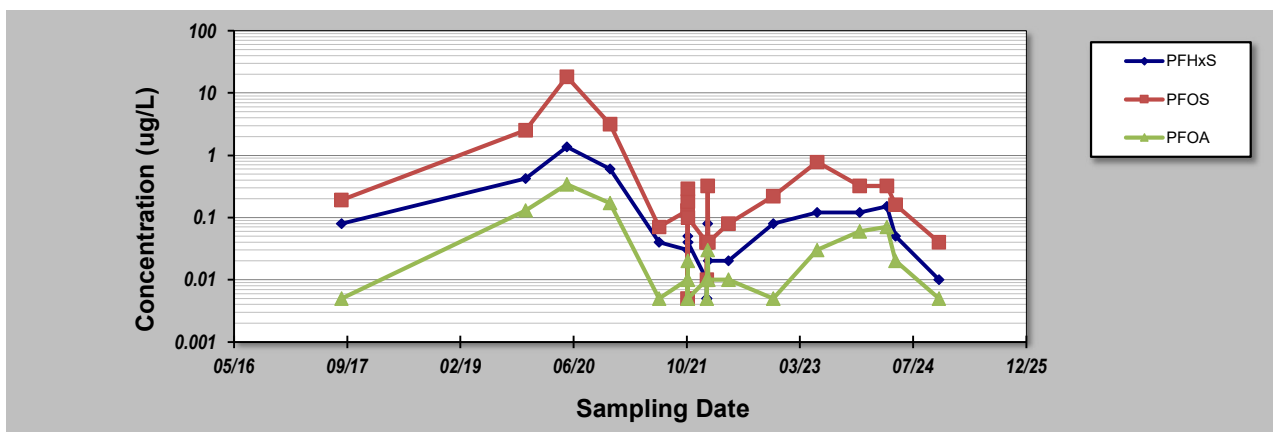
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW029**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	28 Aug 2017	0.08	0.19	0.005				
2	19 Nov 2019	0.42	2.52	0.13				
3	19 May 2020	1.37	18.2	0.34				
4	26 Nov 2020	0.6	3.15	0.17				
5	01 Jul 2021	0.04	0.07	0.005				
6	03 Nov 2021	0.03	0.13	0.01				
7	03 Nov 2021	0.005	0.005	0.005				
8	04 Nov 2021	0.05	0.18	0.01				
9	04 Nov 2021	0.1	0.29	0.02				
10	05 Nov 2021	0.04	0.1	0.005				
11	27 Jan 2022	0.01	0.04	0.01				
12	27 Jan 2022	0.005	0.04	0.01				
13	28 Jan 2022	0.005	0.01	0.005				
14	31 Jan 2022	0.08	0.32	0.03				
15	03 Feb 2022	0.02	0.04	0.01				
16	04 May 2022	0.02	0.08	0.01				
17	17 Nov 2022	0.08	0.22	0.005				
18	29 May 2023	0.12	0.78	0.03				
19	04 Dec 2023	0.12	0.32	0.06				
20	02 Apr 2024	0.15	0.32	0.07				
21	10 May 2024	0.05	0.16	0.02				
22	18 Nov 2024	0.01	0.04	0.005				
23								
24								
25								
Coefficient of Variation:		1.98	3.13	1.80				
Mann-Kendall Statistic (S):		-24	-24	5				
Confidence Factor:		73.9%	73.9%	54.4%				
Concentration Trend:		No Trend	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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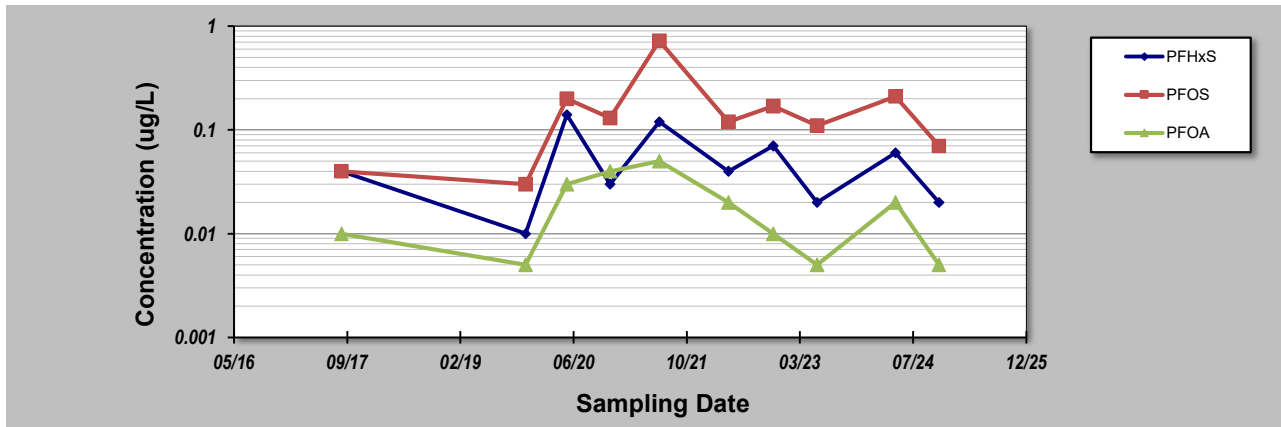
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW030**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	28 Aug 2017	0.04	0.04	0.01				
2	19 Nov 2019	0.01	0.03	0.005				
3	19 May 2020	0.14	0.2	0.03				
4	26 Nov 2020	0.03	0.13	0.04				
5	02 Jul 2021	0.12	0.72	0.05				
6	04 May 2022	0.04	0.12	0.02				
7	17 Nov 2022	0.07	0.17	0.01				
8	29 May 2023	0.02	0.11	0.005				
9	10 May 2024	0.06	0.21	0.02				
10	18 Nov 2024	0.02	0.07	0.005				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.80	1.11	0.81				
Mann-Kendall Statistic (S):		-5	5	-8				
Confidence Factor:		63.6%	63.6%	72.9%				
Concentration Trend:		Stable	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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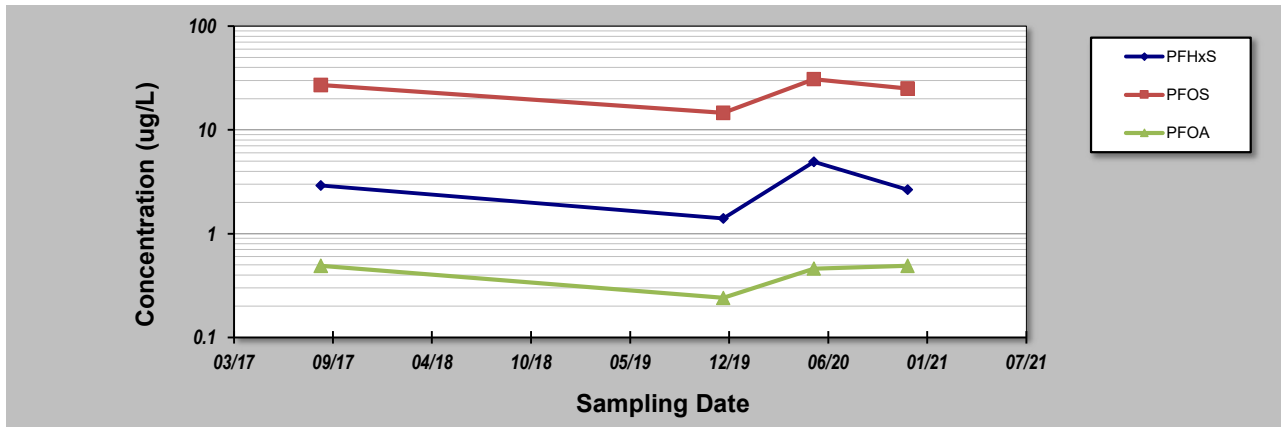
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25** Job ID: **0066-SW031**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	28 Aug 2017	2.9	27	0.49				
2	19 Nov 2019	1.4	14.6	0.24				
3	20 May 2020	4.93	30.8	0.46				
4	25 Nov 2020	2.65	25	0.49				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.49	0.28	0.29				
Mann-Kendall Statistic (S):		0	0	1				
Confidence Factor:		37.5%	37.5%	50.0%				
Concentration Trend:		Stable	Stable	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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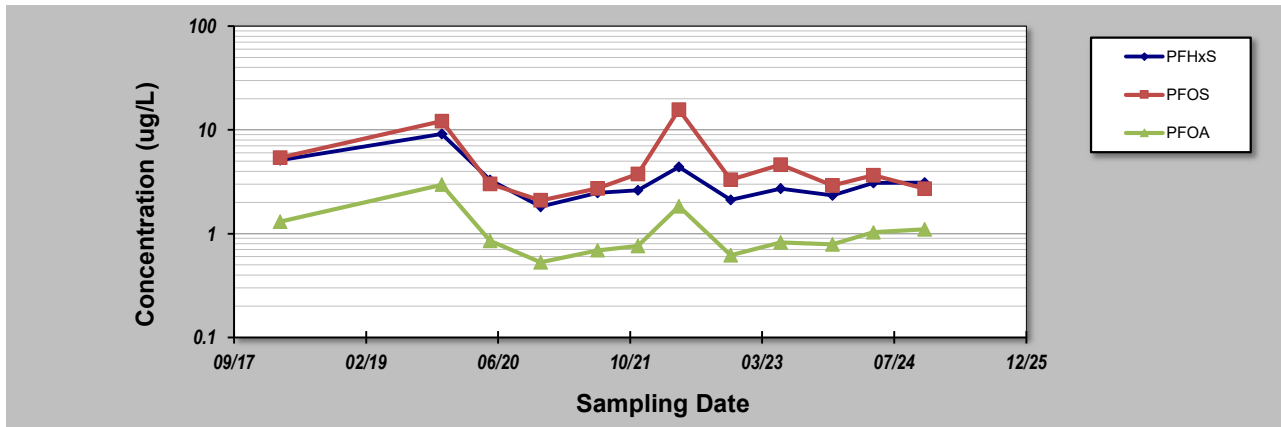
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for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-SW057**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	16 Mar 2018	5.1	5.4	1.3				
2	18 Nov 2019	9.16	12.1	2.96				
3	19 May 2020	3.28	3.01	0.85				
4	26 Nov 2020	1.82	2.09	0.53				
5	30 Jun 2021	2.48	2.74	0.69				
6	30 Nov 2021	2.61	3.75	0.76				
7	03 May 2022	4.4	15.7	1.83				
8	16 Nov 2022	2.12	3.32	0.62				
9	24 May 2023	2.72	4.64	0.82				
10	06 Dec 2023	2.33	2.9	0.79				
11	09 May 2024	3.09	3.65	1.03				
12	19 Nov 2024	3.1	2.7	1.1				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.57	0.82	0.62				
Mann-Kendall Statistic (S):		-10	-12	0				
Confidence Factor:		72.7%	77.0%	47.3%				
Concentration Trend:		Stable	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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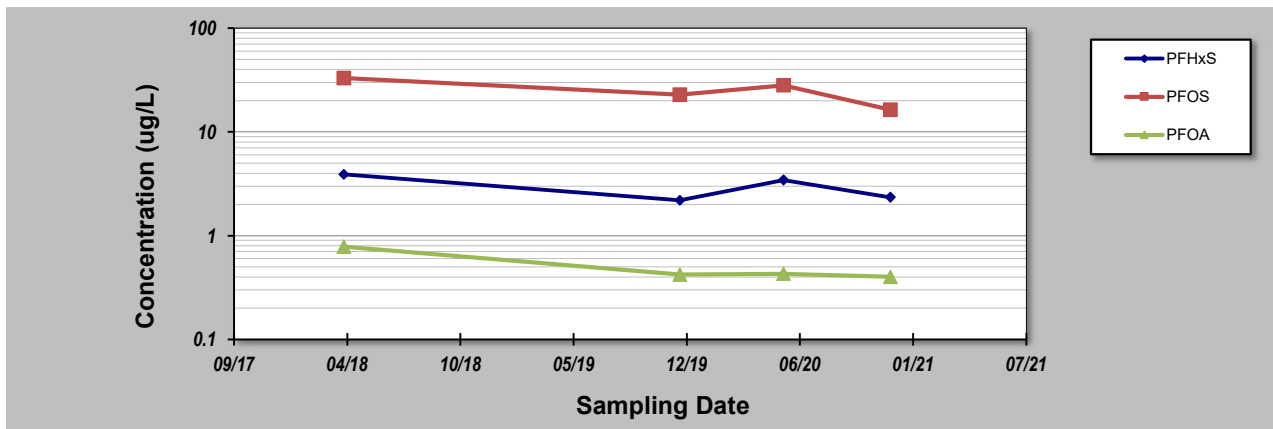
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for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW058**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	04 Apr 2018	3.9	33	0.78				
2	19 Nov 2019	2.19	22.8	0.42				
3	20 May 2020	3.44	28.1	0.43				
4	25 Nov 2020	2.35	16.4	0.4				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.28	0.28	0.36				
Mann-Kendall Statistic (S):		-2	-4	-4				
Confidence Factor:		62.5%	83.3%	83.3%				
Concentration Trend:		Stable	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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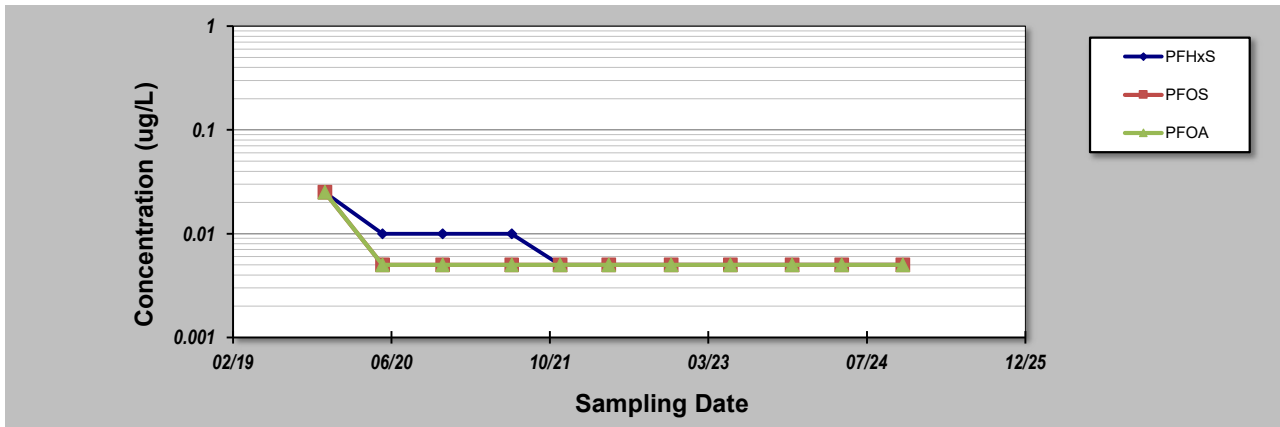
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW071**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 Nov 2019	0.025	0.025	0.025				
2	21 May 2020	0.01	0.005	0.005				
3	26 Nov 2020	0.01	0.005	0.005				
4	02 Jul 2021	0.01	0.005	0.005				
5	02 Dec 2021	0.005	0.005	0.005				
6	04 May 2022	0.005	0.005	0.005				
7	17 Nov 2022	0.005	0.005	0.005				
8	23 May 2023	0.005	0.005	0.005				
9	04 Dec 2023	0.005	0.005	0.005				
10	09 May 2024	0.005	0.005	0.005				
11	18 Nov 2024	0.005	0.005	0.005				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.74	0.88	0.88				
Mann-Kendall Statistic (S):		-31	-10	-10				
Confidence Factor:		99.2%	75.3%	75.3%				
Concentration Trend:		Decreasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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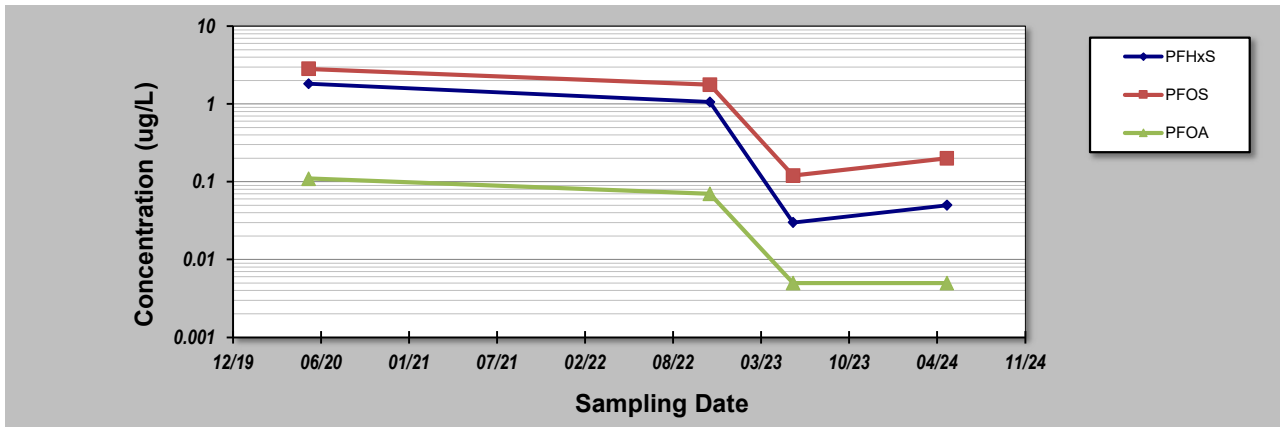
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-SW072**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	21 May 2020	1.82	2.83	0.11				
2	18 Nov 2022	1.06	1.77	0.07				
3	26 May 2023	0.03	0.12	0.005				
4	10 May 2024	0.05	0.2	0.005				
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.17	1.06	1.09				
Mann-Kendall Statistic (S):		-4	-4	-5				
Confidence Factor:		83.3%	83.3%	89.6%				
Concentration Trend:		No Trend	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

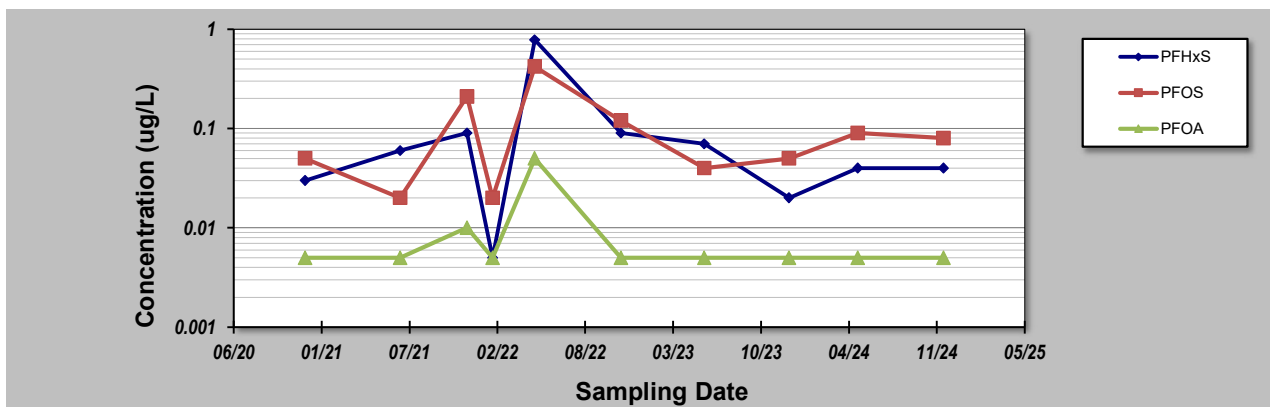
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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: 28-Apr-25	Job ID: 0066-SW073
Facility Name: HMAS Cerberus	Constituent: PFAS
Conducted By: [REDACTED]	Concentration Units: ug/L

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	27-Nov-20	0.03	0.05	0.005				
2	2-Jul-21	0.06	0.02	0.005				
3	1-Dec-21	0.09	0.21	0.01				
4	28-Jan-22	0.005	0.02	0.005				
5	4-May-22	0.78	0.42	0.05				
6	16-Nov-22	0.09	0.12	0.005				
7	25-May-23	0.07	0.04	0.005				
8	4-Dec-23	0.02	0.05	0.005				
9	8-May-24	0.04	0.09	0.005				
10	19-Nov-24	0.04	0.08	0.005				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.90	1.12	1.41				
Mann-Kendall Statistic (S):		-3	5	-5				
Confidence Factor:		56.9%	63.6%	63.6%				
Concentration Trend:		No Trend	No Trend	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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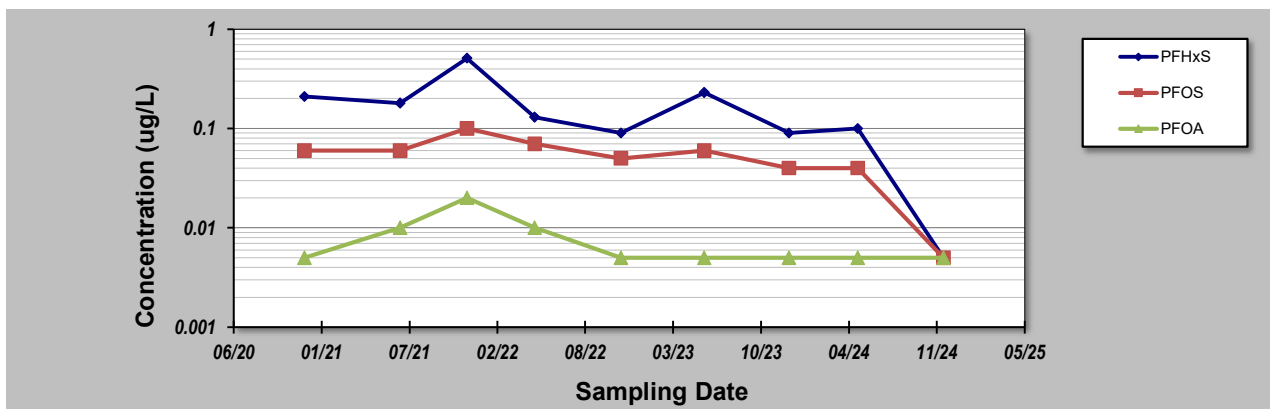
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 28-Apr-25	Job ID: 0066-SW074
Facility Name: HMAS Cerberus	Constituent: PFAS
Conducted By: [REDACTED]	Concentration Units: ug/L

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	26-Nov-20	0.21	0.06	0.005				
2	2-Jul-21	0.18	0.06	0.01				
3	1-Dec-21	0.51	0.1	0.02				
4	4-May-22	0.13	0.07	0.01				
5	16-Nov-22	0.09	0.05	0.005				
6	25-May-23	0.23	0.06	0.005				
7	4-Dec-23	0.09	0.04	0.005				
8	8-May-24	0.1	0.04	0.005				
9	19-Nov-24	0.005	0.005	0.005				
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.84	0.48	0.65				
Mann-Kendall Statistic (S):		-19	-22	-12				
Confidence Factor:		97.0%	98.8%	87.0%				
Concentration Trend:		Decreasing	Decreasing	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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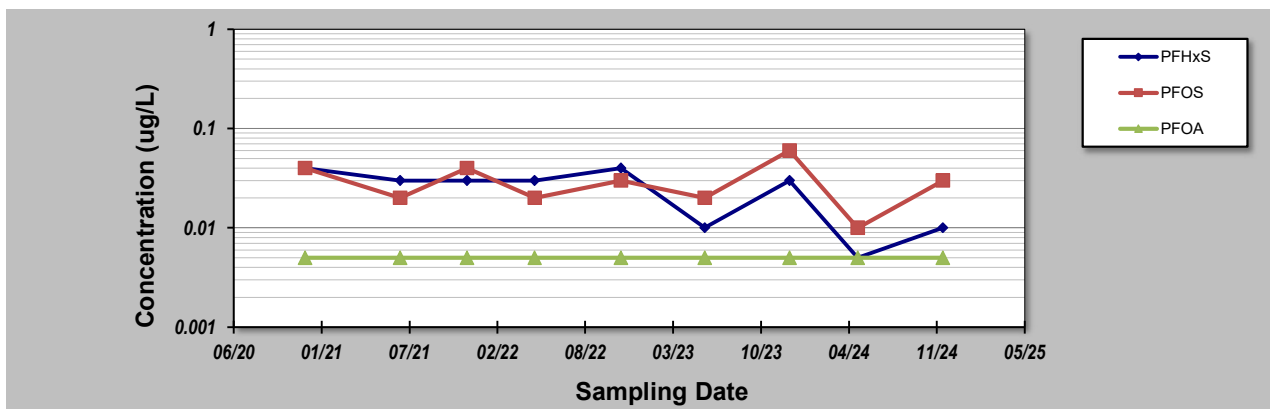
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 28-Apr-25		Job ID: 0066-SW075	
Facility Name: HMAS Cerberus		Constituent: PFAS	
Conducted By: [REDACTED]		Concentration Units: ug/L	
Sampling Point ID:	PFHxS	PFOS	PFOA

Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)					
1	27-Nov-20	0.04	0.04	0.005			
2	2-Jul-21	0.03	0.02	0.005			
3	1-Dec-21	0.03	0.04	0.005			
4	4-May-22	0.03	0.02	0.005			
5	16-Nov-22	0.04	0.03	0.005			
6	26-May-23	0.01	0.02	0.005			
7	5-Dec-23	0.03	0.06	0.005			
8	8-May-24	0.005	0.01	0.005			
9	18-Nov-24	0.01	0.03	0.005			
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.53	0.50	0.00			
Mann-Kendall Statistic (S):		-18	-5	0			
Confidence Factor:		96.2%	65.7%	46.0%			
Concentration Trend:		Decreasing	Stable	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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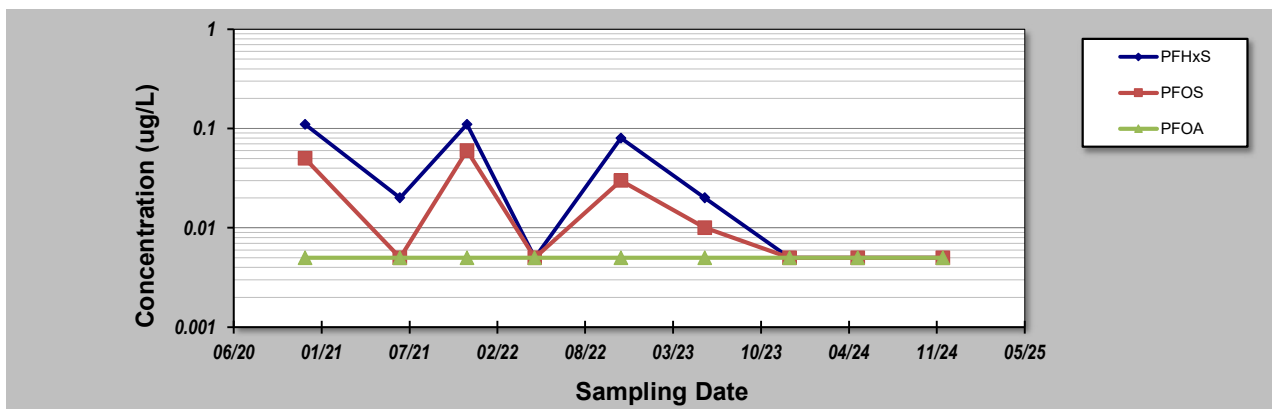
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 28-Apr-25		Job ID: 0066-SW076	
Facility Name: HMAS Cerberus		Constituent: PFAS	
Conducted By: [REDACTED]		Concentration Units: ug/L	
Sampling Point ID: PFHxS		PFOS	PFOA

Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)					
1	27-Nov-20	0.11	0.05	0.005			
2	1-Jul-21	0.02	0.005	0.005			
3	1-Dec-21	0.11	0.06	0.005			
4	4-May-22	0.005	0.005	0.005			
5	16-Nov-22	0.08	0.03	0.005			
6	26-May-23	0.02	0.01	0.005			
7	5-Dec-23	0.005	0.005	0.005			
8	8-May-24	0.005	0.005	0.005			
9	18-Nov-24	0.005	0.005	0.005			
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		1.16	1.12	0.00			
Mann-Kendall Statistic (S):		-20	-14	0			
Confidence Factor:		97.8%	91.0%	46.0%			
Concentration Trend:		Decreasing	Prob. Decreasing	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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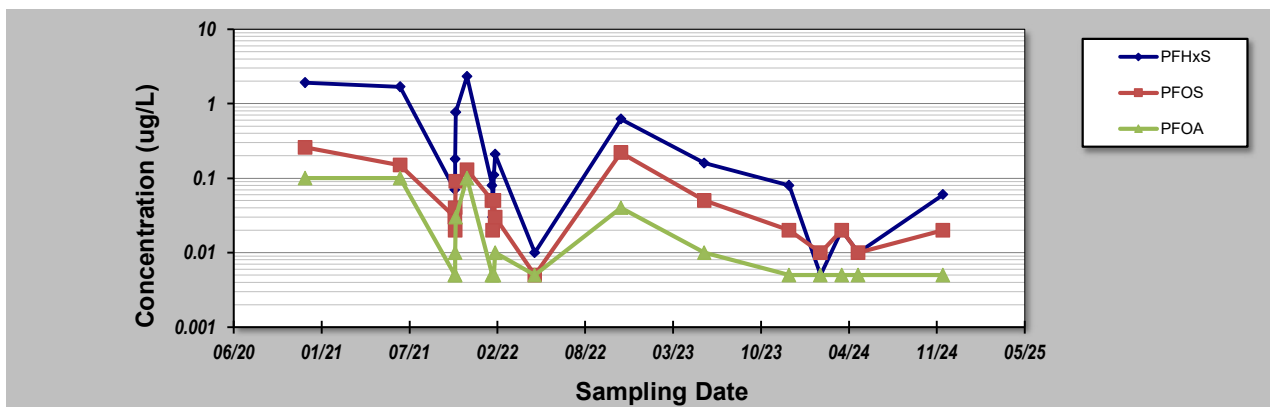
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 28-Apr-25	Job ID: 0066-SW077
Facility Name: HMAS Cerberus	Constituent: PFAS
Conducted By: [REDACTED]	Concentration Units: ug/L

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	27-Nov-20	1.91	0.26	0.1				
2	2-Jul-21	1.68	0.15	0.1				
3	3-Nov-21	0.07	0.03	0.005				
4	4-Nov-21	0.1	0.02	0.005				
5	4-Nov-21	0.18	0.04	0.01				
6	5-Nov-21	0.77	0.09	0.03				
7	1-Dec-21	2.32	0.13	0.1				
8	27-Jan-22	0.08	0.05	0.005				
9	28-Jan-22	0.03	0.02	0.005				
10	31-Jan-22	0.11	0.05	0.005				
11	3-Feb-22	0.21	0.03	0.01				
12	4-May-22	0.01	0.005	0.005				
13	16-Nov-22	0.62	0.22	0.04				
14	25-May-23	0.16	0.05	0.01				
15	4-Dec-23	0.08	0.02	0.005				
16	13-Feb-24	0.005	0.01	0.005				
17	2-Apr-24	0.02	0.02	0.005				
18	9-May-24	0.01	0.01	0.005				
19	18-Nov-24	0.06	0.02	0.005				
20								
Coefficient of Variation:		1.62	1.14	1.47				
Mann-Kendall Statistic (S):		-73	-70	-52				
Confidence Factor:		99.5%	99.3%	96.3%				
Concentration Trend:		Decreasing	Decreasing	Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

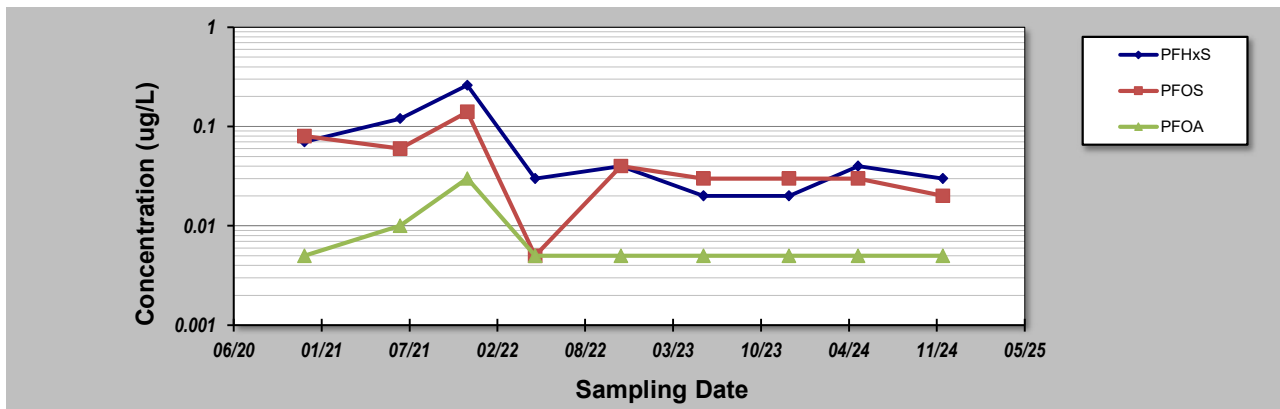
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date:	28-Apr-25	Job ID:	SW078					
Facility Name:	HMAS Cerberus	Constituent:	PFAS					
Conducted By:		Concentration Units:	ug/L					
Sampling Point ID:	PFHxS	PFOS	PFOA					
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	26-Nov-20	0.07	0.08	0.005				
2	2-Jul-21	0.12	0.06	0.01				
3	2-Dec-21	0.26	0.14	0.03				
4	5-May-22	0.03	0.005	0.005				
5	16-Nov-22	0.04	0.04	0.005				
6	23-May-23	0.02	0.03	0.005				
7	4-Dec-23	0.02	0.03	0.005				
8	9-May-24	0.04	0.03	0.005				
9	18-Nov-24	0.03	0.02	0.005				
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:	1.11	0.84	0.99					
Mann-Kendall Statistic (S):	-15	-19	-9					
Confidence Factor:	92.5%	97.0%	79.2%					
Concentration Trend:	Prob. Decreasing	Decreasing	Stable					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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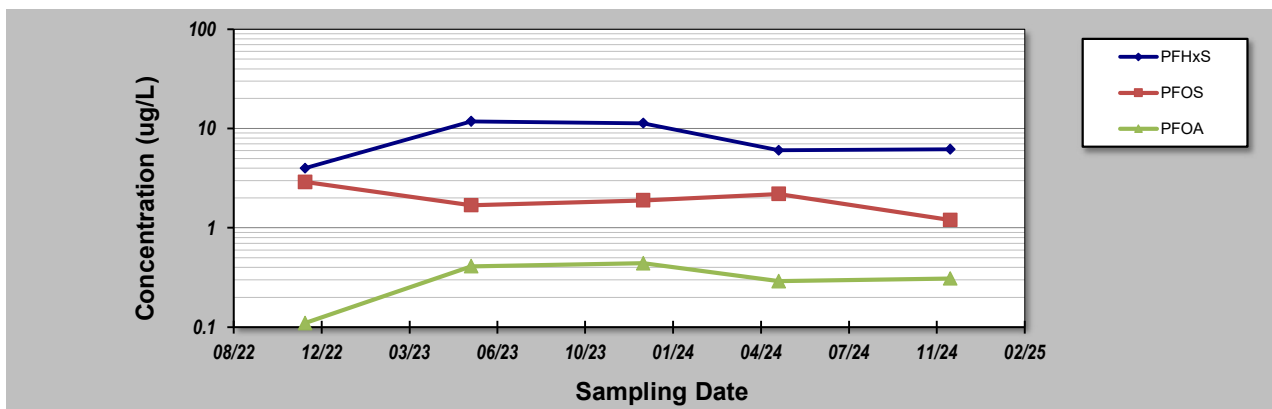
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **28-Apr-25** Job ID: **0066-MW017 - Post Remediation**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	16/11/2022	3.98	2.9	0.11	6.88			
2	24/05/2023	11.8	1.69	0.41	13.5			
3	6/12/2023	11.3	1.89	0.44	13.2			
4	8/05/2024	6.04	2.2	0.29	8.24			
5	19/11/2024	6.2	1.2	0.31	7.4			
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.44	0.32	0.42	0.33			
Mann-Kendall Statistic (S):		0	-4	2	-2			
Confidence Factor:		40.8%	75.8%	59.2%	59.2%			
Concentration Trend:		Stable	Stable	No Trend	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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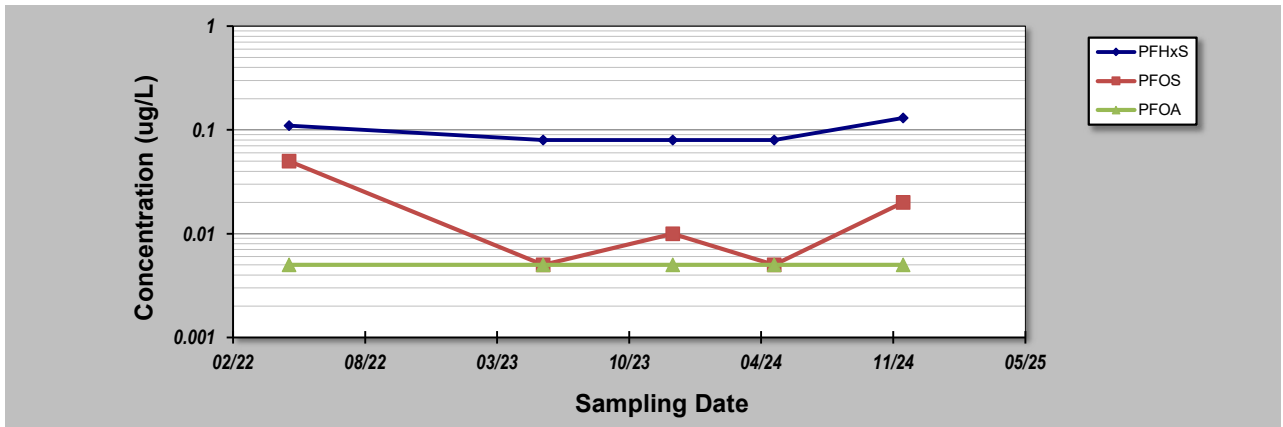
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW018-Post Remediation**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-May-22	0.11	0.05	0.005				
2	24-May-23	0.08	0.005	0.005				
3	6-Dec-23	0.08	0.01	0.005				
4	8-May-24	0.08	0.005	0.005				
5	19-Nov-24	0.13	0.02	0.005				
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.24	1.05	0.00				
Mann-Kendall Statistic (S):		1	-1	0				
Confidence Factor:		50.0%	50.0%	40.8%				
Concentration Trend:		No Trend	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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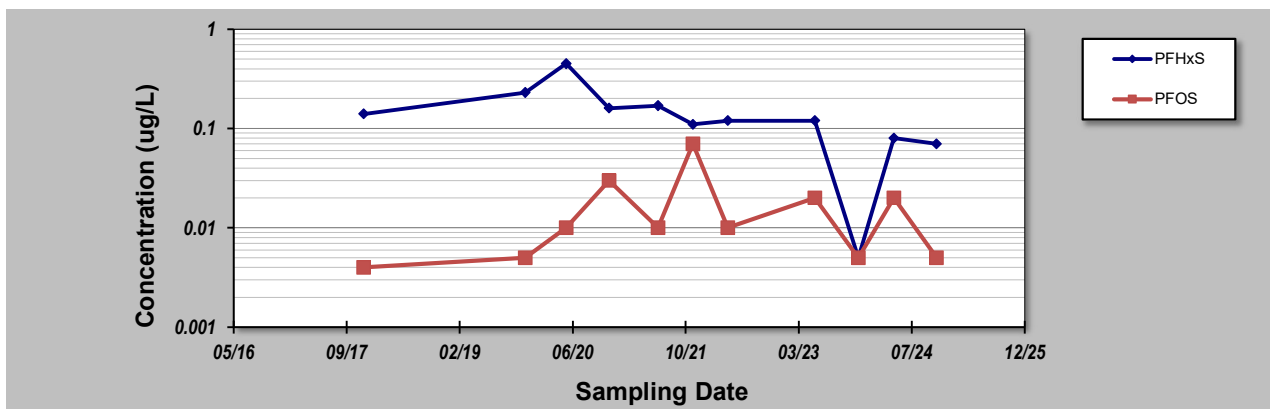
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **8-May-25** Job ID: **0066-MW019**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	6-Dec-17	0.14	0.004	0.041				
2	21-Nov-19	0.23	0.005	0.06				
3	21-May-20	0.45	0.01	0.17				
4	26-Nov-20	0.16	0.03	0.05				
5	30-Jun-21	0.17	0.01	0.04				
6	2-Dec-21	0.11	0.07	0.005				
7	5-May-22	0.12	0.01	0.03				
8	26-May-23	0.12	0.02	0.04				
9	4-Dec-23	0.005	0.005	0.005				
10	9-May-24	0.08	0.02	0.02				
11	14-Nov-24	0.07	0.005	0.01				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.77	1.13	1.07				
Mann-Kendall Statistic (S):		-34	8	-31				
Confidence Factor:		99.6%	70.3%	99.2%				
Concentration Trend:		Decreasing	No Trend	Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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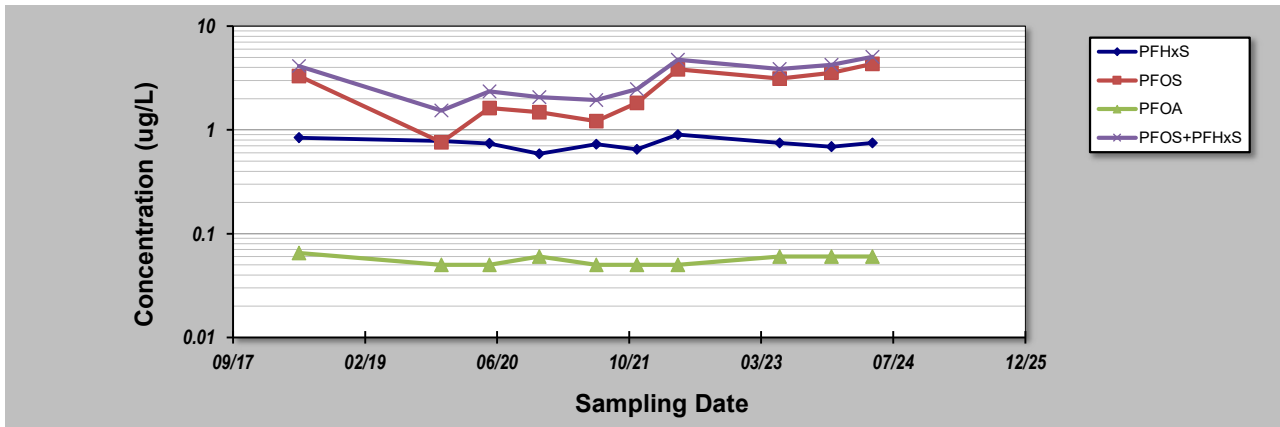
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW025**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	30-May-18	0.84	3.3	0.065	4.14			
2	20-Nov-19	0.78	0.76	0.05	1.54			
3	20-May-20	0.74	1.62	0.05	2.36			
4	25-Nov-20	0.59	1.48	0.06	2.07			
5	29-Jun-21	0.73	1.21	0.05	1.94			
6	30-Nov-21	0.65	1.82	0.05	2.47			
7	3-May-22	0.9	3.84	0.05	4.74			
8	24-May-23	0.75	3.12	0.06	3.87			
9	6-Dec-23	0.69	3.56	0.06	4.25			
10	9-May-24	0.75	4.32	0.06	5.07			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.12	0.50	0.11	0.40			
Mann-Kendall Statistic (S):		-6	23	5	23			
Confidence Factor:		66.8%	97.7%	63.6%	97.7%			
Concentration Trend:		Stable	Increasing	No Trend	Increasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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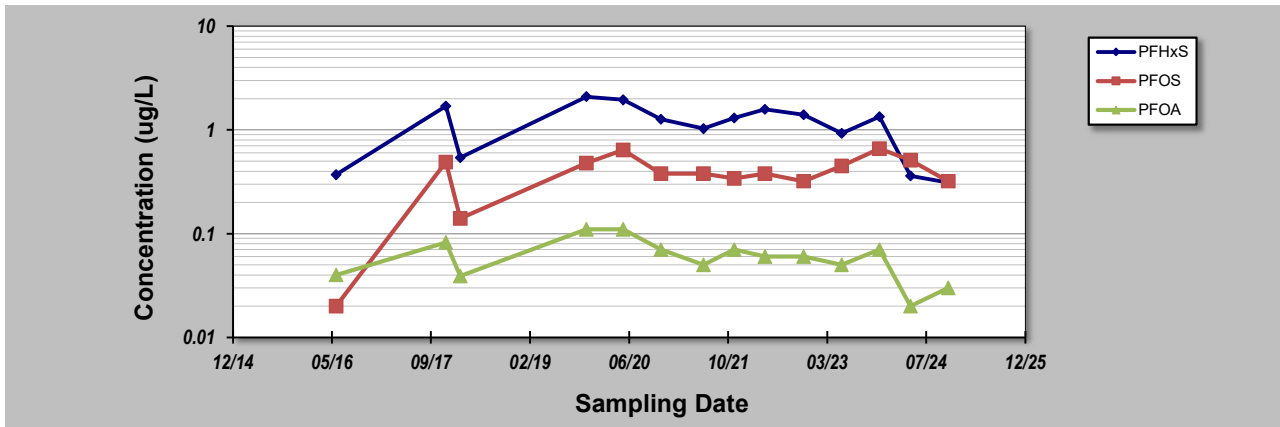
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066- MW028**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	30-May-16	0.37	0.02	0.04				
2	5-Dec-17	1.7	0.49	0.082				
3	16-Feb-18	0.54	0.14	0.039				
4	15-Nov-19	2.09	0.48	0.11				
5	19-May-20	1.95	0.64	0.11				
6	26-Nov-20	1.27	0.38	0.07				
7	29-Jun-21	1.03	0.38	0.05				
8	30-Nov-21	1.3	0.34	0.07				
9	4-May-22	1.58	0.38	0.06				
10	15-Nov-22	1.4	0.32	0.06				
11	26-May-23	0.93	0.45	0.05				
12	4-Dec-23	1.34	0.66	0.07				
13	8-May-24	0.36	0.51	0.02				
14	15-Nov-24	0.31	0.32	0.03				
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.51	0.44	0.43				
Mann-Kendall Statistic (S):		-23	11	-27				
Confidence Factor:		88.3%	70.5%	92.1%				
Concentration Trend:		Stable	No Trend	Prob. Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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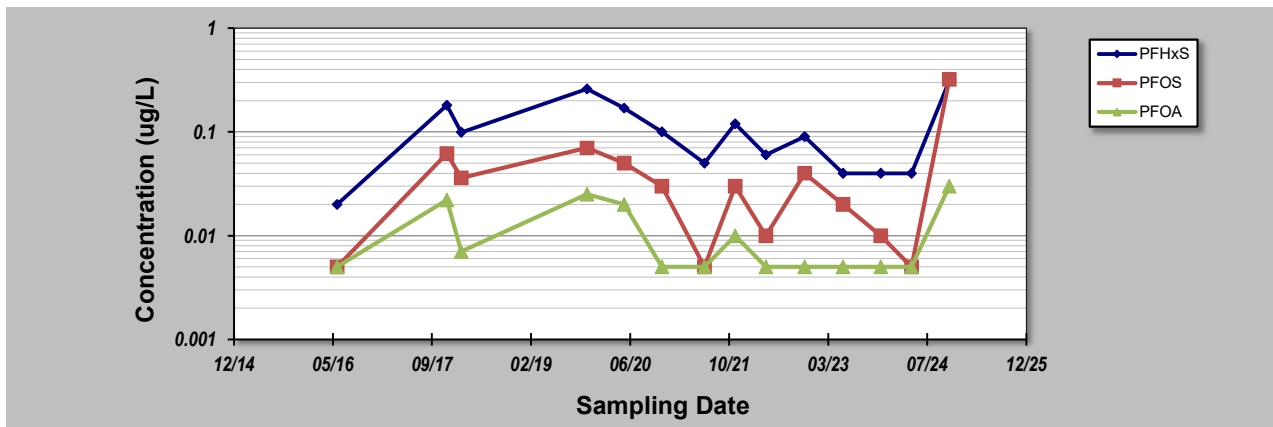
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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066- MW029**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	30-May-16	0.02	0.005	0.005				
2	6-Dec-17	0.18	0.062	0.022				
3	16-Feb-18	0.099	0.036	0.007				
4	14-Nov-19	0.26	0.07	0.025				
5	19-May-20	0.17	0.05	0.02				
6	26-Nov-20	0.1	0.03	0.005				
7	29-Jun-21	0.05	0.005	0.005				
8	30-Nov-21	0.12	0.03	0.01				
9	4-May-22	0.06	0.01	0.005				
10	15-Nov-22	0.09	0.04	0.005				
11	29-May-23	0.04	0.02	0.005				
12	5-Dec-23	0.04	0.01	0.005				
13	8-May-24	0.04	0.005	0.005				
14	15-Nov-24	0.31	0.32	0.03				
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.78	1.63	0.82				
Mann-Kendall Statistic (S):		-18	-14	-15				
Confidence Factor:		82.1%	75.8%	77.5%				
Concentration Trend:		Stable	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

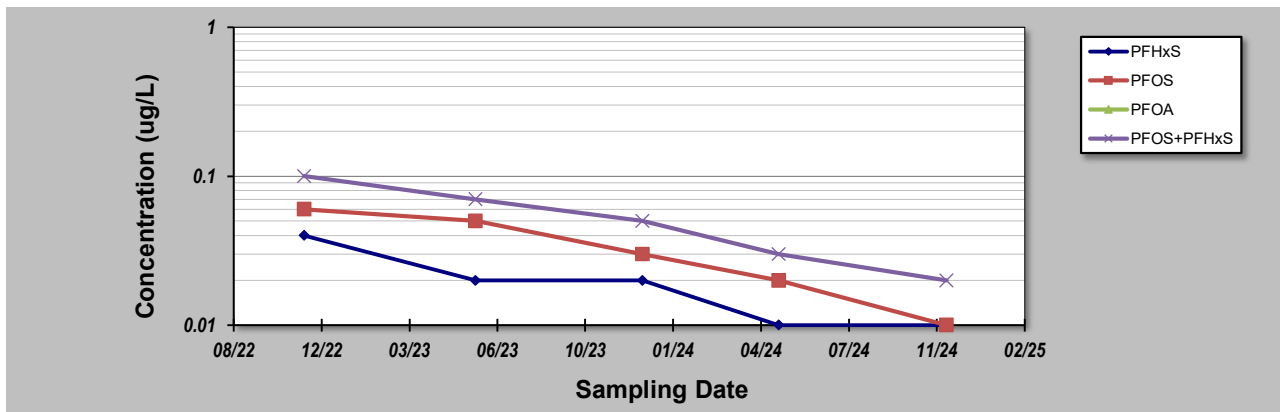
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **8-May-25** Job ID: **0066-MW030-Post Remediation**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	15/11/2022	0.04	0.06	0.005	0.1			
2	29/05/2023	0.02	0.05	0.005	0.07			
3	5/12/2023	0.02	0.03	0.005	0.05			
4	8/05/2024	0.01	0.02	0.005	0.03			
5	15/11/2024	0.01	0.01	0.005	0.02			
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.61	0.61		0.59			
Mann-Kendall Statistic (S):		-8	-10		-10			
Confidence Factor:		95.8%	99.2%		99.2%			
Concentration Trend:		Decreasing	Decreasing		Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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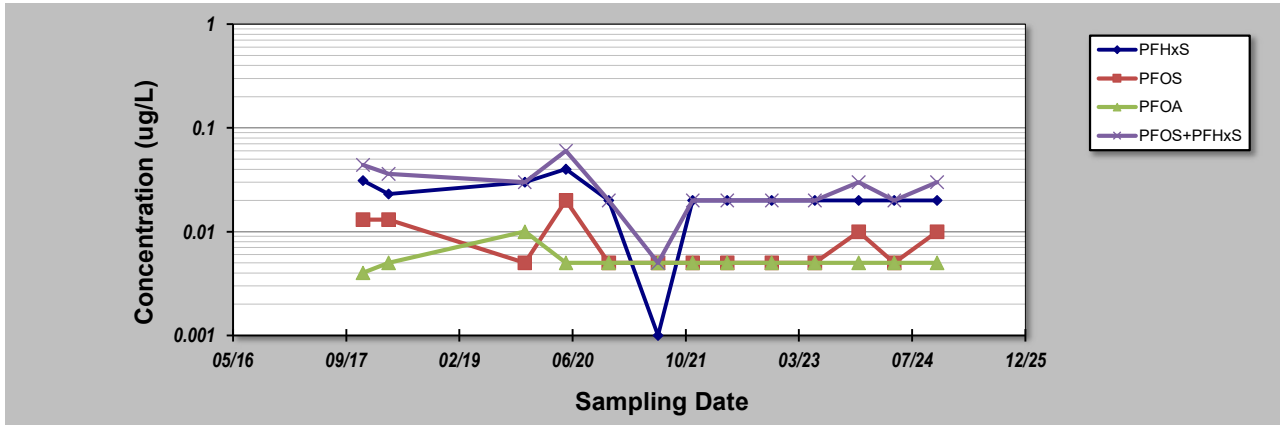
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW033**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	5-Dec-17	0.031	0.013	0.004	0.044			
2	28-Mar-18	0.023	0.013	0.005	0.036			
3	20-Nov-19	0.03	0.005	0.01	0.03			
4	20-May-20	0.04	0.02	0.005	0.06			
5	25-Nov-20	0.02	0.005	0.005	0.02			
6	30-Jun-21	0.001	0.005	0.005	0.005			
7	1-Dec-21	0.02	0.005	0.005	0.02			
8	3-May-22	0.02	0.005	0.005	0.02			
9	15-Nov-22	0.02	0.005	0.005	0.02			
10	24-May-23	0.02	0.005	0.005	0.02			
11	4-Dec-23	0.02	0.01	0.005	0.03			
12	9-May-24	0.02	0.005	0.005	0.02			
13	15-Nov-24	0.02	0.01	0.005	0.03			
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.40	0.59	0.27	0.50			
Mann-Kendall Statistic (S):		-28	-12	3	-18			
Confidence Factor:		95.0%	74.5%	54.8%	84.7%			
Concentration Trend:		Prob. Decreasing	Stable	No Trend	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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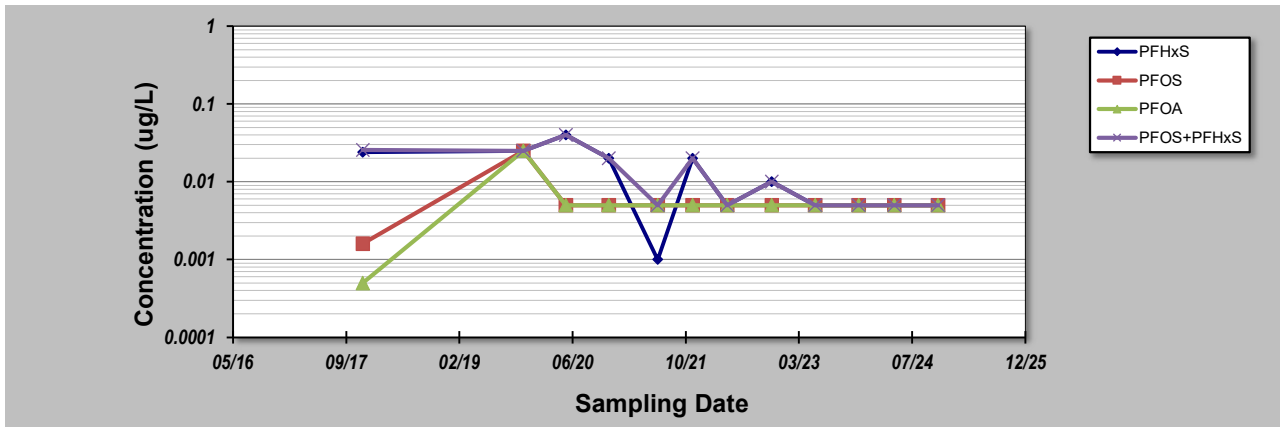
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW034**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-Dec-17	0.024	0.0016	0.0005	0.0256			
2	14-Nov-19	0.025	0.025	0.025	0.025			
3	19-May-20	0.04	0.005	0.005	0.04			
4	25-Nov-20	0.02	0.005	0.005	0.02			
5	29-Jun-21	0.001	0.005	0.005	0.005			
6	30-Nov-21	0.02	0.005	0.005	0.02			
7	3-May-22	0.005	0.005	0.005	0.005			
8	15-Nov-22	0.01	0.005	0.005	0.01			
9	25-May-23	0.005	0.005	0.005	0.005			
10	4-Dec-23	0.005	0.005	0.005	0.005			
11	9-May-24	0.005	0.005	0.005	0.005			
12	19-Nov-24	0.005	0.005	0.005	0.005			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.87	0.93	0.96	0.82			
Mann-Kendall Statistic (S):		-33	1	1	-40			
Confidence Factor:		98.7%	50.0%	50.0%	99.7%			
Concentration Trend:		Decreasing	No Trend	No Trend	Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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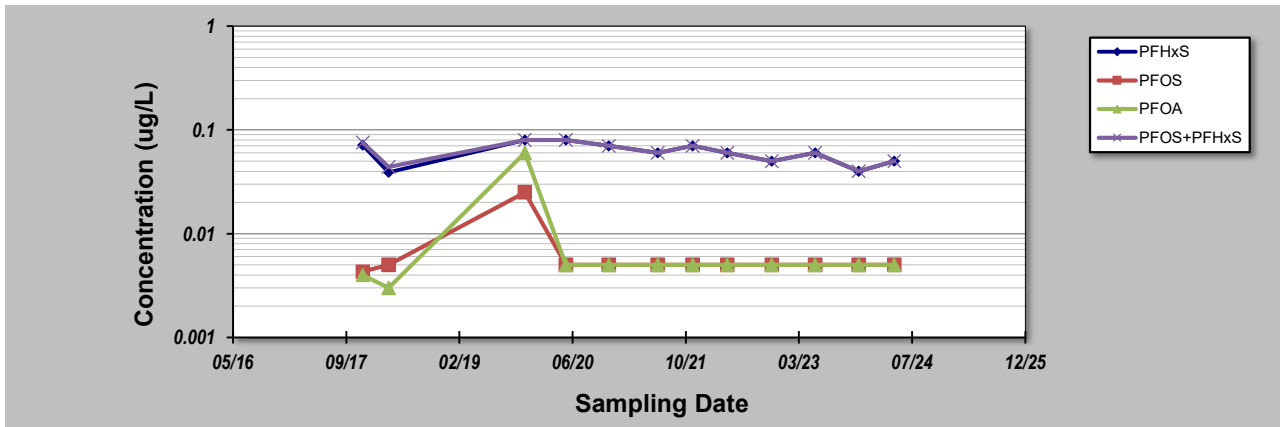
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW036**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-Dec-17	0.071	0.0043	0.004	0.0753			
2	28-Mar-18	0.039	0.005	0.003	0.044			
3	20-Nov-19	0.08	0.025	0.06	0.08			
4	19-May-20	0.08	0.005	0.005	0.08			
5	25-Nov-20	0.07	0.005	0.005	0.07			
6	29-Jun-21	0.06	0.005	0.005	0.06			
7	30-Nov-21	0.07	0.005	0.005	0.07			
8	3-May-22	0.06	0.005	0.005	0.06			
9	15-Nov-22	0.05	0.005	0.005	0.05			
10	25-May-23	0.06	0.005	0.005	0.06			
11	4-Dec-23	0.04	0.005	0.005	0.04			
12	9-May-24	0.05	0.005	0.005	0.05			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.23	0.88	1.71	0.22			
Mann-Kendall Statistic (S):		-30	3	10	-32			
Confidence Factor:		97.8%	55.4%	72.7%	98.4%			
Concentration Trend:		Decreasing	No Trend	No Trend	Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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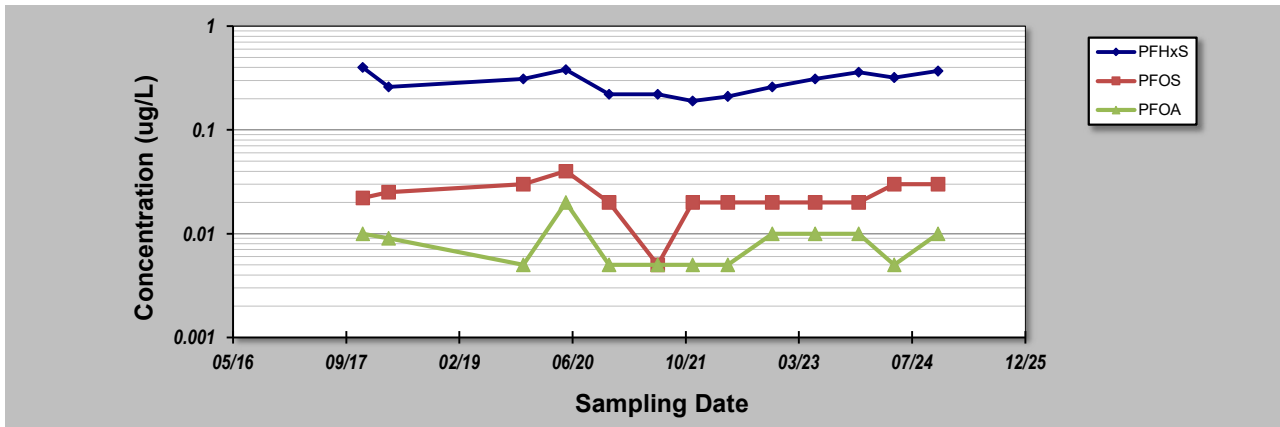
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW041**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-Dec-17	0.4	0.022	0.01				
2	28-Mar-18	0.26	0.025	0.009				
3	14-Nov-19	0.31	0.03	0.005				
4	19-May-20	0.38	0.04	0.02				
5	26-Nov-20	0.22	0.02	0.005				
6	29-Jun-21	0.22	0.005	0.005				
7	1-Dec-21	0.19	0.02	0.005				
8	5-May-22	0.21	0.02	0.005				
9	17-Nov-22	0.26	0.02	0.01				
10	25-May-23	0.31	0.02	0.01				
11	4-Dec-23	0.36	0.02	0.01				
12	9-May-24	0.32	0.03	0.005				
13	19-Nov-24	0.37	0.03	0.01				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.24	0.36	0.51				
Mann-Kendall Statistic (S):		5	-2	3				
Confidence Factor:		59.4%	52.4%	54.8%				
Concentration Trend:		No Trend	Stable	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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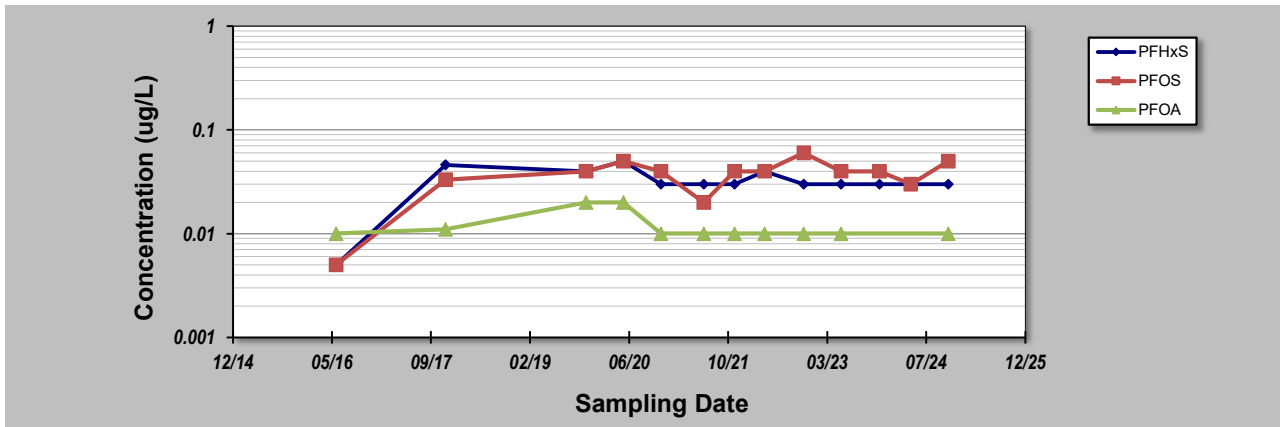
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW046**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	30-May-16	0.005	0.005	0.01				
2	4-Dec-17	0.046	0.033	0.011				
3	14-Nov-19	0.04	0.04	0.02				
4	20-May-20	0.05	0.05	0.02				
5	25-Nov-20	0.03	0.04	0.01				
6	30-Jun-21	0.03	0.02	0.01				
7	1-Dec-21	0.03	0.04	0.01				
8	3-May-22	0.04	0.04	0.01				
9	17-Nov-22	0.03	0.06	0.01				
10	24-May-23	0.03	0.04	0.01				
11	4-Dec-23	0.03	0.04	<0.01				
12	9-May-24	0.03	0.03	<0.01				
13	15-Nov-24	0.03	0.05	0.01				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.33	0.37	0.34				
Mann-Kendall Statistic (S):		-15	20	-16				
Confidence Factor:		79.9%	87.4%	87.5%				
Concentration Trend:		Stable	No Trend	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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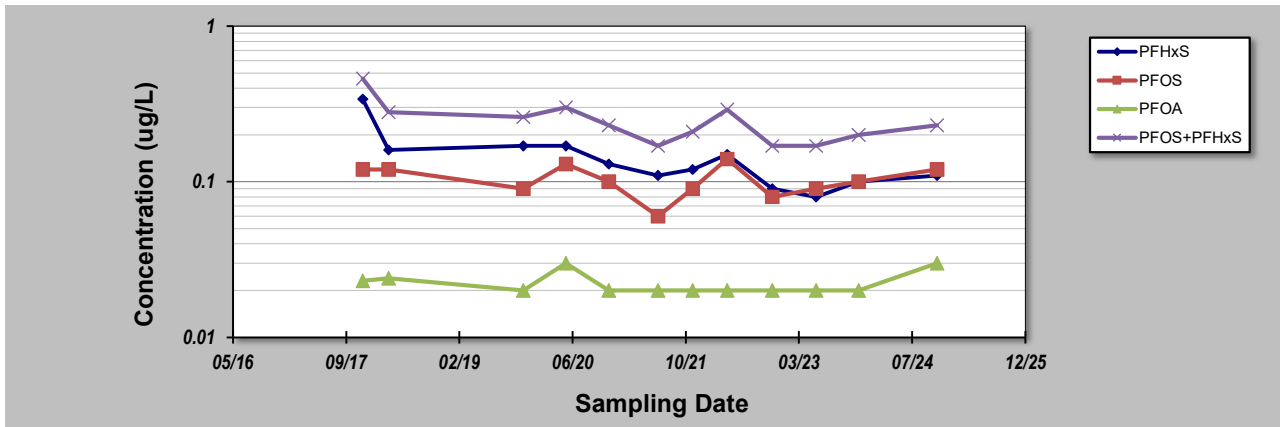
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW047**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-Dec-17	0.34	0.12	0.023	0.46			
2	28-Mar-18	0.16	0.12	0.024	0.28			
3	14-Nov-19	0.17	0.09	0.02	0.26			
4	20-May-20	0.17	0.13	0.03	0.3			
5	25-Nov-20	0.13	0.1	0.02	0.23			
6	30-Jun-21	0.11	0.06	0.02	0.17			
7	1-Dec-21	0.12	0.09	0.02	0.21			
8	3-May-22	0.15	0.14	0.02	0.29			
9	17-Nov-22	0.09	0.08	0.02	0.17			
10	29-May-23	0.08	0.09	0.02	0.17			
11	4-Dec-23	0.1	0.1	0.02	0.2			
12	15-Nov-24	0.11	0.12	0.03	0.23			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.48	0.22	0.17	0.33			
Mann-Kendall Statistic (S):		-42	-5	-9	-30			
Confidence Factor:		99.8%	60.6%	70.4%	97.8%			
Concentration Trend:		Decreasing	Stable	Stable	Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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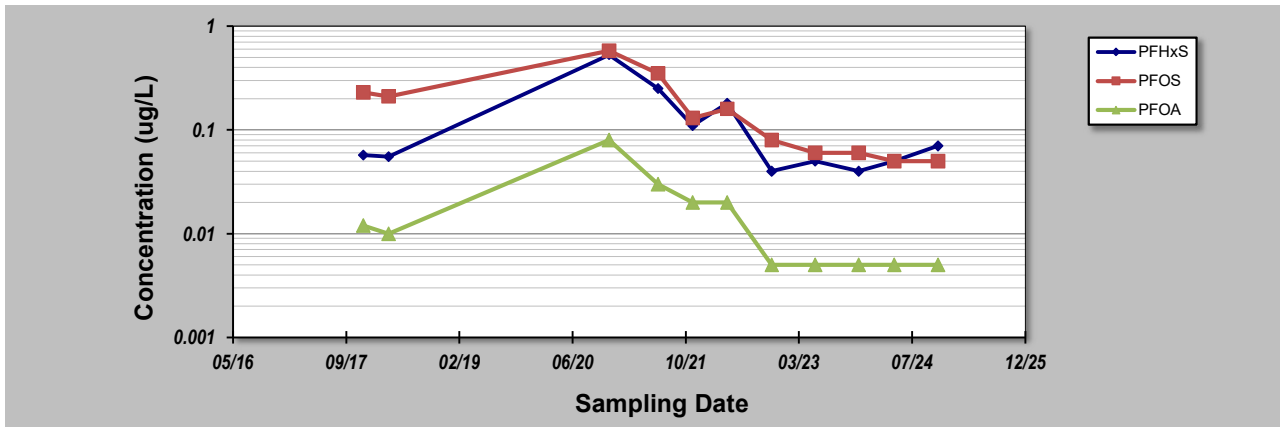
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW051**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	6-Dec-17	0.057	0.23	0.012				
2	28-Mar-18	0.055	0.21	0.01				
3	26-Nov-20	0.53	0.58	0.08				
4	30-Jun-21	0.25	0.35	0.03				
5	1-Dec-21	0.11	0.13	0.02				
6	3-May-22	0.18	0.16	0.02				
7	15-Nov-22	0.04	0.08	0.005				
8	25-May-23	0.05	0.06	0.005				
9	4-Dec-23	0.04	0.06	0.005				
10	9-May-24	0.05	0.05	0.005				
11	19-Nov-24	0.07	0.05	0.005				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.14	0.92	1.24				
Mann-Kendall Statistic (S):		-17	-43	-28				
Confidence Factor:		89.1%	>99.9%	98.4%				
Concentration Trend:		No Trend	Decreasing	Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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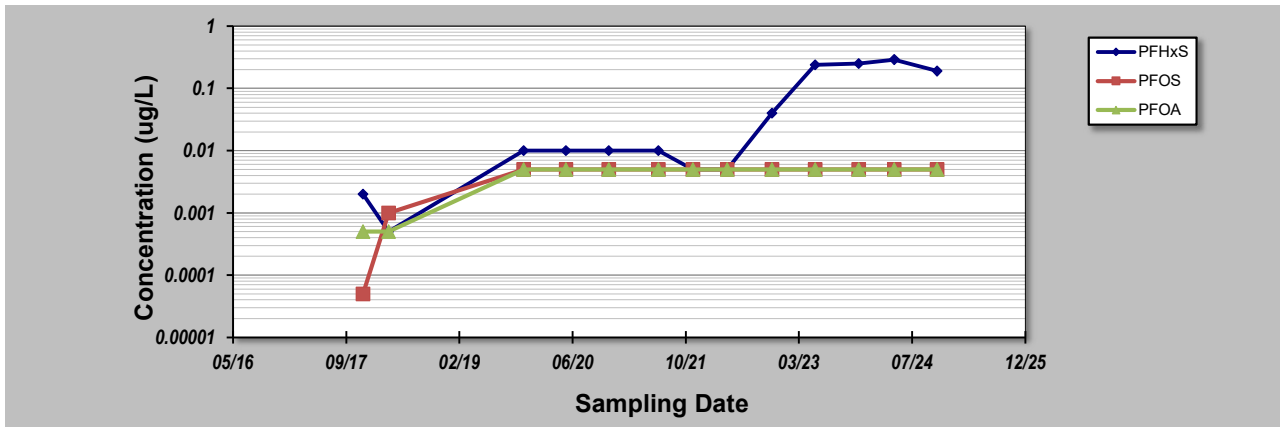
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW054**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	5-Dec-17	0.002	0.00005	0.0005				
2	28-Mar-18	0.0005	0.001	0.0005				
3	15-Nov-19	0.01	0.005	0.005				
4	20-May-20	0.01	0.005	0.005				
5	25-Nov-20	0.01	0.005	0.005				
6	2-Jul-21	0.01	0.005	0.005				
7	2-Dec-21	0.005	0.005	0.005				
8	3-May-22	0.005	0.005	0.005				
9	16-Nov-22	0.04	0.005	0.005				
10	25-May-23	0.24	0.005	0.005				
11	4-Dec-23	0.25	0.005	0.005				
12	9-May-24	0.29	0.005	0.005				
13	15-Nov-24	0.19	0.005	0.005				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.39	0.39	0.39				
Mann-Kendall Statistic (S):		47	23	22				
Confidence Factor:		99.9%	90.8%	89.8%				
Concentration Trend:		Increasing	Prob. Increasing	No Trend				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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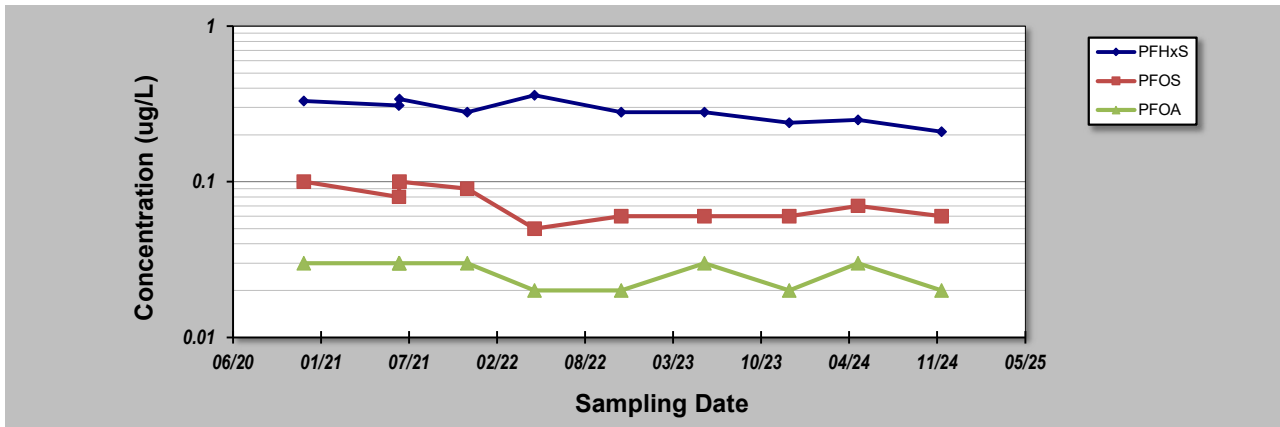
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW061**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	26-Nov-20	0.33	0.1	0.03				
2	30-Jun-21	0.31	0.08	0.03				
3	1-Jul-21	0.34	0.1	0.03				
4	2-Dec-21	0.28	0.09	0.03				
5	4-May-22	0.36	0.05	0.02				
6	17-Nov-22	0.28	0.06	0.02				
7	25-May-23	0.28	0.06	0.03				
8	4-Dec-23	0.24	0.06	0.02				
9	8-May-24	0.25	0.07	0.03				
10	14-Nov-24	0.21	0.06	0.02				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.16	0.25	0.20				
Mann-Kendall Statistic (S):		-28	-18	-14				
Confidence Factor:		99.4%	93.4%	87.3%				
Concentration Trend:		Decreasing	Prob. Decreasing	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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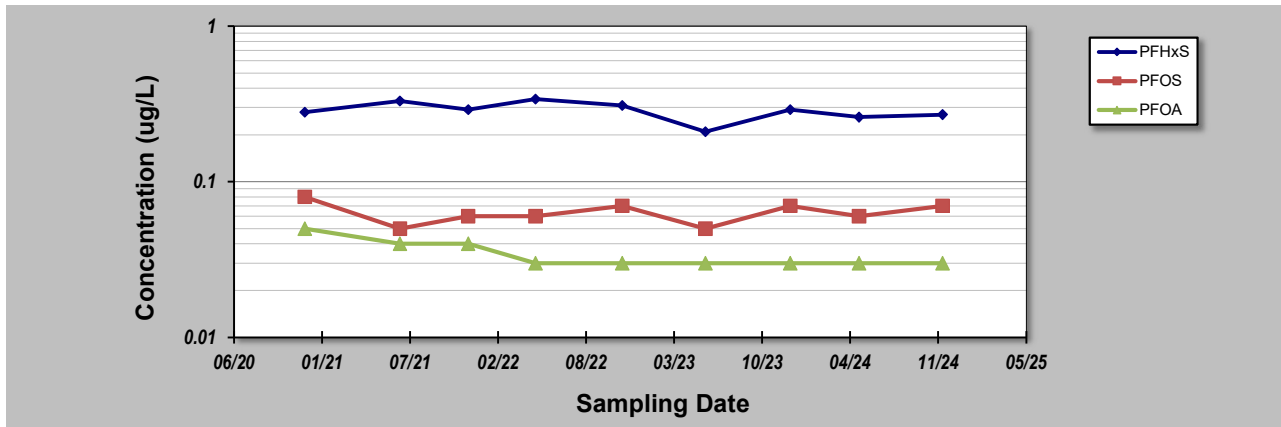
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW062**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	26-Nov-20	0.28	0.08	0.05				
2	30-Jun-21	0.33	0.05	0.04				
3	2-Dec-21	0.29	0.06	0.04				
4	4-May-22	0.34	0.06	0.03				
5	17-Nov-22	0.31	0.07	0.03				
6	25-May-23	0.21	0.05	0.03				
7	4-Dec-23	0.29	0.07	0.03				
8	8-May-24	0.26	0.06	0.03				
9	14-Nov-24	0.27	0.07	0.03				
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.14	0.16	0.21				
Mann-Kendall Statistic (S):		-11	3	-20				
Confidence Factor:		84.6%	58.0%	97.8%				
Concentration Trend:		Stable	No Trend	Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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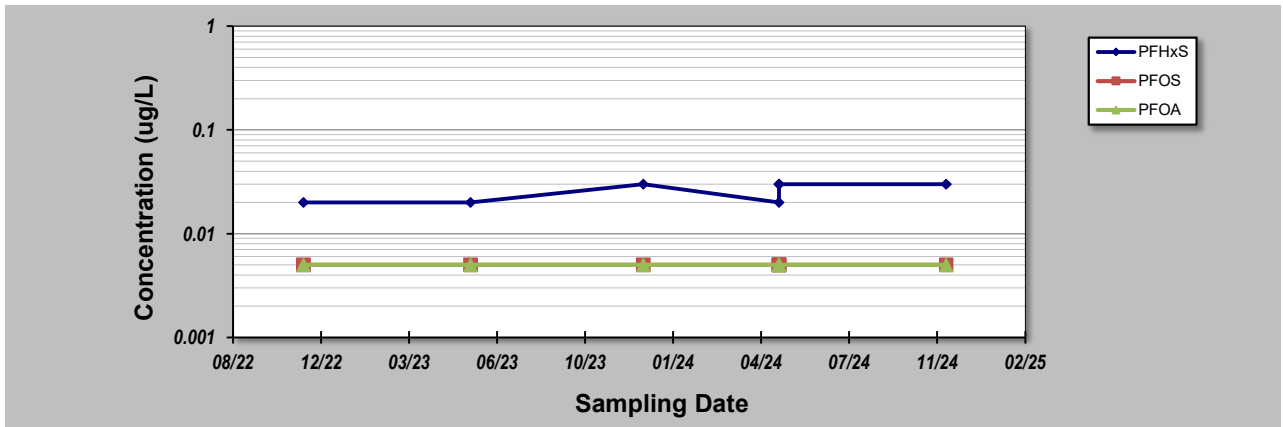
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW063_Post Remediation**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	15-Nov-22	0.02	0.005	0.005				
2	24-May-23	0.02	0.005	0.005				
3	6-Dec-23	0.03	0.005	0.005				
4	8-May-24	0.02	0.005	0.005				
5	8-May-24	0.03	0.005	0.005				
6	8-May-24	0.03	0.005	0.005				
7	14-Nov-24	0.03	0.005	0.005				
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.21	0.00	0.00				
Mann-Kendall Statistic (S):		10	0	0				
Confidence Factor:		90.7%	37.9%	37.9%				
Concentration Trend:		Prob. Increasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

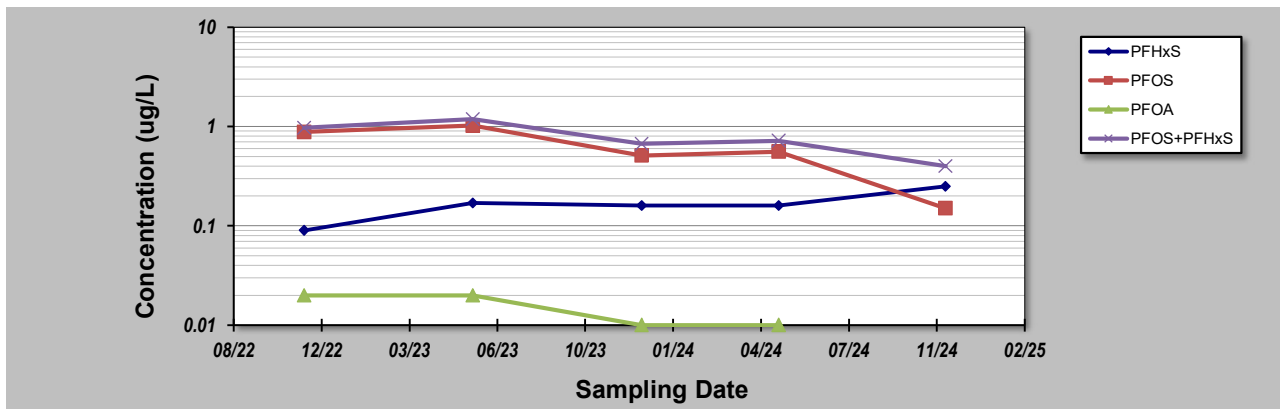
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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: 8-May-25	Job ID: 0066-MW064-Post Remediation
Facility Name: HMAS Cerberus	Constituent: PFAS
Conducted By: [REDACTED]	Concentration Units: ug/L

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	15/11/2022	0.09	0.88	0.02	0.97			
2	26/05/2023	0.17	1.02	0.02	1.19			
3	4/12/2023	0.16	0.51	0.01	0.67			
4	8/05/2024	0.16	0.56	0.01	0.72			
5	14/11/2024	0.25	0.15	0.005	0.4			
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.34	0.55	0.38	0.38			
Mann-Kendall Statistic (S):		5	-6	0	-6			
Confidence Factor:		82.1%	88.3%	37.5%	88.3%			
Concentration Trend:		No Trend	Stable	Stable	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

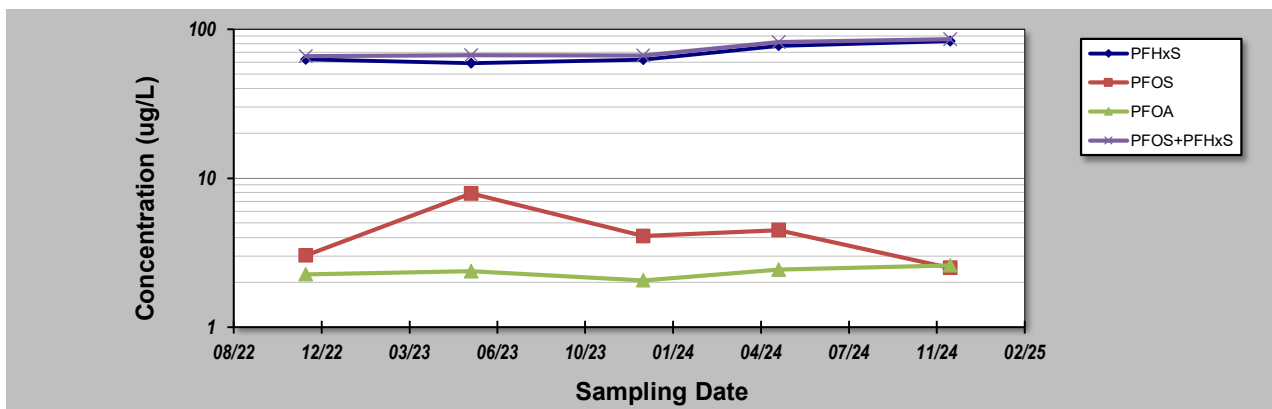
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date:	8-May-25			Job ID:	0066-MW067-Post Remediation			
Facility Name:	HMAS Cerberus			Constituent:	PFAS			
Conducted By:				Concentration Units:	ug/L			
Sampling Point ID:	PFHxS	PFOS	PFOA	PFOS+PFHxS				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17/11/2022	62.8	3.03	2.26	65.8			
2	24/05/2023	59	7.89	2.37	66.9			
3	6/12/2023	62.5	4.09	2.06	66.6			
4	8/05/2024	77.4	4.49	2.43	81.9			
5	19/11/2024	83	2.5	2.6	85.5			
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:	0.15	0.48	0.09	0.13				
Mann-Kendall Statistic (S):	6	-2	6	8				
Confidence Factor:	88.3%	59.2%	88.3%	95.8%				
Concentration Trend:	No Trend	Stable	No Trend	Increasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. Methodology is valid for 4 to 40 samples.
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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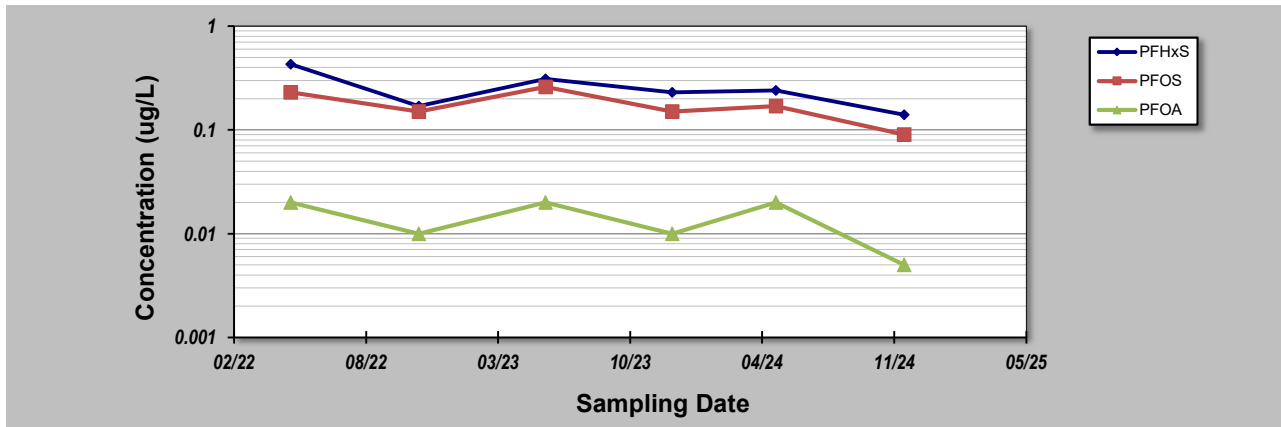
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW068**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	5-May-22	0.43	0.23	0.02				
2	15-Nov-22	0.17	0.15	0.01				
3	26-May-23	0.31	0.26	0.02				
4	4-Dec-23	0.23	0.15	0.01				
5	9-May-24	0.24	0.17	0.02				
6	19-Nov-24	0.14	0.09	0.005				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.41	0.35	0.47				
Mann-Kendall Statistic (S):		-7	-6	-5				
Confidence Factor:		86.4%	81.5%	76.5%				
Concentration Trend:		Stable	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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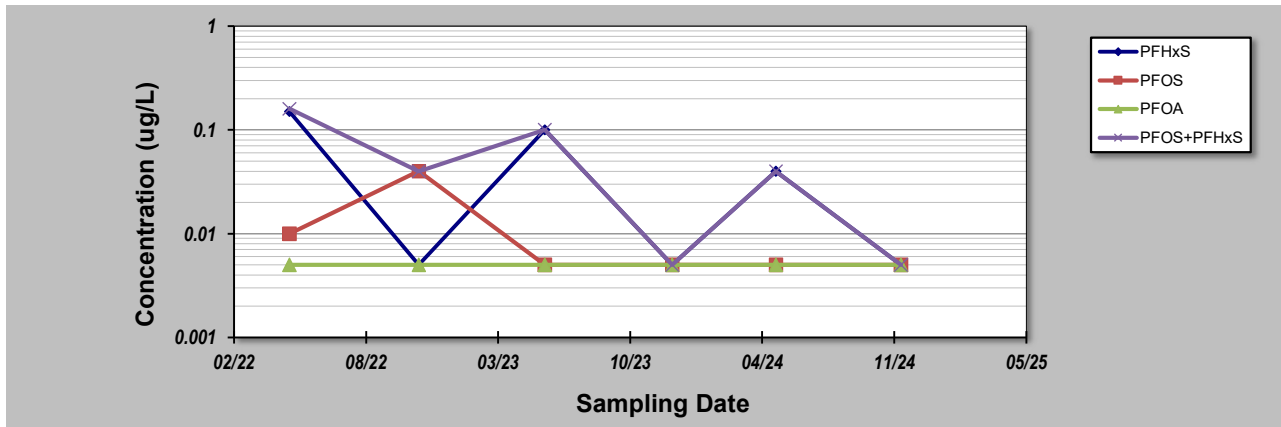
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW069**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	3-May-22	0.15	0.01	0.005	0.16			
2	15-Nov-22	0.005	0.04	0.005	0.04			
3	25-May-23	0.1	0.005	0.005	0.1			
4	4-Dec-23	0.005	0.005	0.005	0.005			
5	9-May-24	0.04	0.005	0.005	0.04			
6	14-Nov-24	0.005	0.005	0.005	0.005			
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.20	1.20	0.00	1.04			
Mann-Kendall Statistic (S):		-6	-7	0	-9			
Confidence Factor:		81.5%	86.4%	39.3%	93.2%			
Concentration Trend:		No Trend	No Trend	Stable	Prob. Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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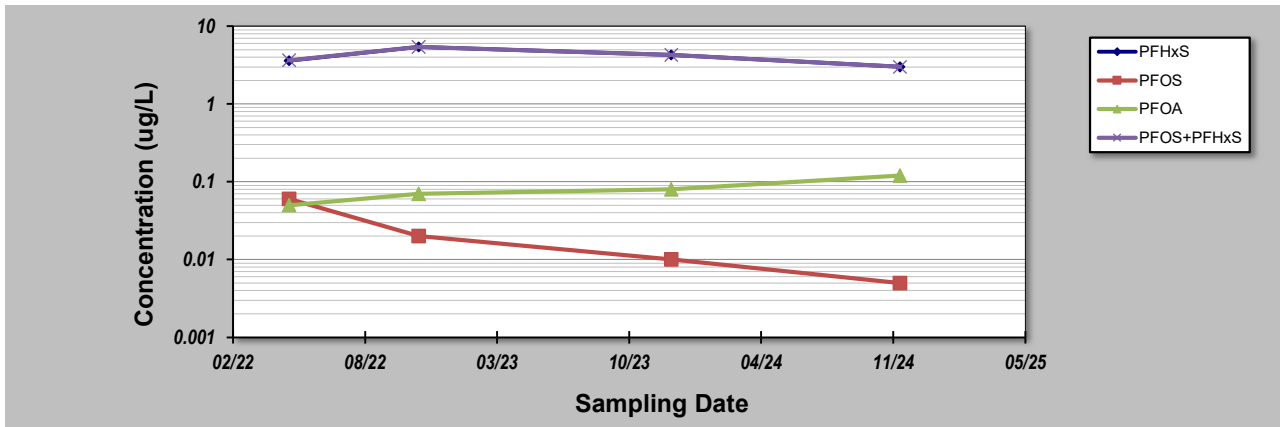
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW070**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-May-22	3.6	0.06	0.05	3.66			
2	16-Nov-22	5.41	0.02	0.07	5.43			
3	4-Dec-23	4.27	0.01	0.08	4.28			
4	14-Nov-24	3	0.005	0.12	3			
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.25	1.05	0.37	0.25			
Mann-Kendall Statistic (S):		-2	-6	6	-2			
Confidence Factor:		62.5%	95.8%	95.8%	62.5%			
Concentration Trend:		Stable	Decreasing	Increasing	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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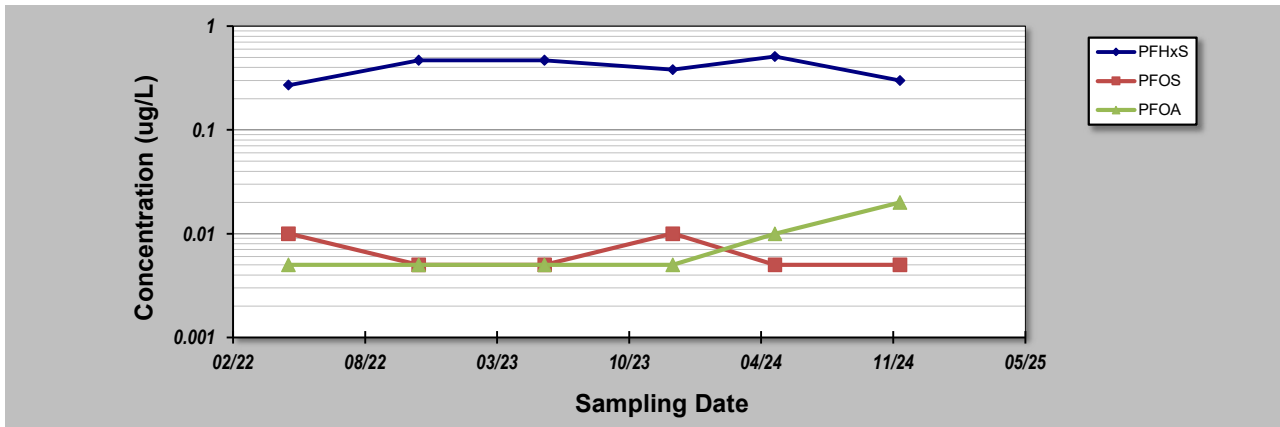
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW071**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	3-May-22	0.27	0.01	0.005				
2	16-Nov-22	0.47	0.005	0.005				
3	26-May-23	0.47	0.005	0.005				
4	6-Dec-23	0.38	0.01	0.005				
5	9-May-24	0.51	0.005	0.01				
6	14-Nov-24	0.3	0.005	0.02				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.25	0.39	0.73				
Mann-Kendall Statistic (S):		2	-4	9				
Confidence Factor:		57.0%	70.3%	93.2%				
Concentration Trend:		No Trend	Stable	Prob. Increasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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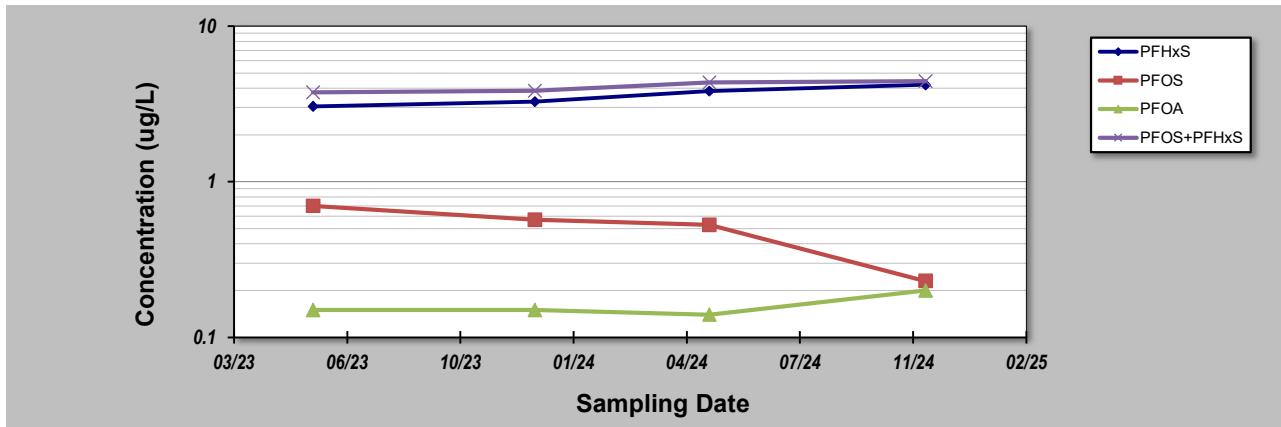
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25** Job ID: **0066-MW074**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	24-May-23	3.05	0.7	0.15	3.75			
2	6-Dec-23	3.27	0.57	0.15	3.84			
3	8-May-24	3.83	0.53	0.14	4.36			
4	15-Nov-24	4.2	0.23	0.2	4.43			
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.15	0.39	0.17	0.09			
Mann-Kendall Statistic (S):		6	-6	1	6			
Confidence Factor:		95.8%	95.8%	50.0%	95.8%			
Concentration Trend:		Increasing	Decreasing	No Trend	Increasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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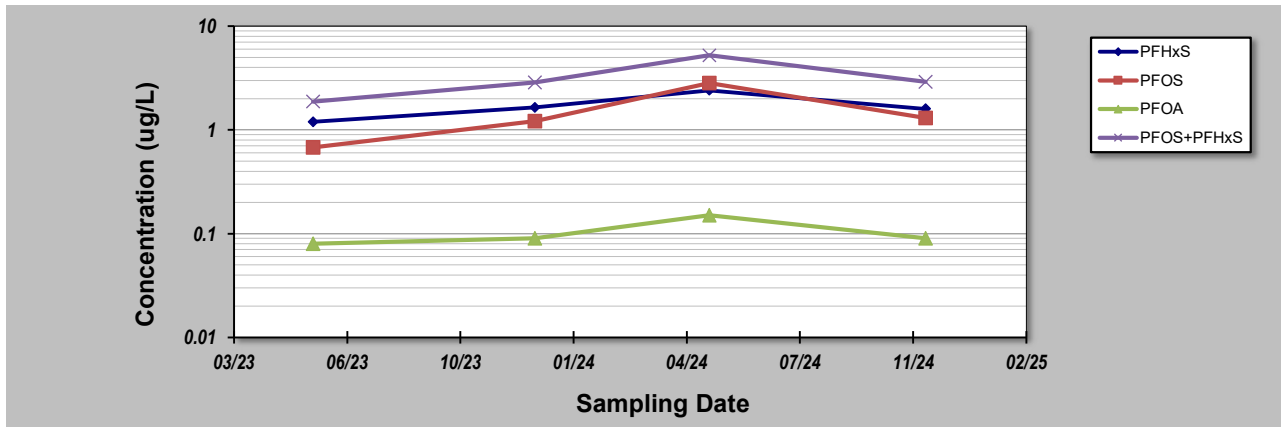
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25** Job ID: **0066-MW075**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	24-May-23	1.2	0.68	0.08	1.88			
2	6-Dec-23	1.65	1.22	0.09	2.87			
3	8-May-24	2.41	2.83	0.15	5.24			
4	15-Nov-24	1.6	1.3	0.09	2.9			
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.29	0.61	0.31	0.44			
Mann-Kendall Statistic (S):		2	4	3	4			
Confidence Factor:		62.5%	83.3%	72.9%	83.3%			
Concentration Trend:		No Trend	No Trend	No Trend	No Trend			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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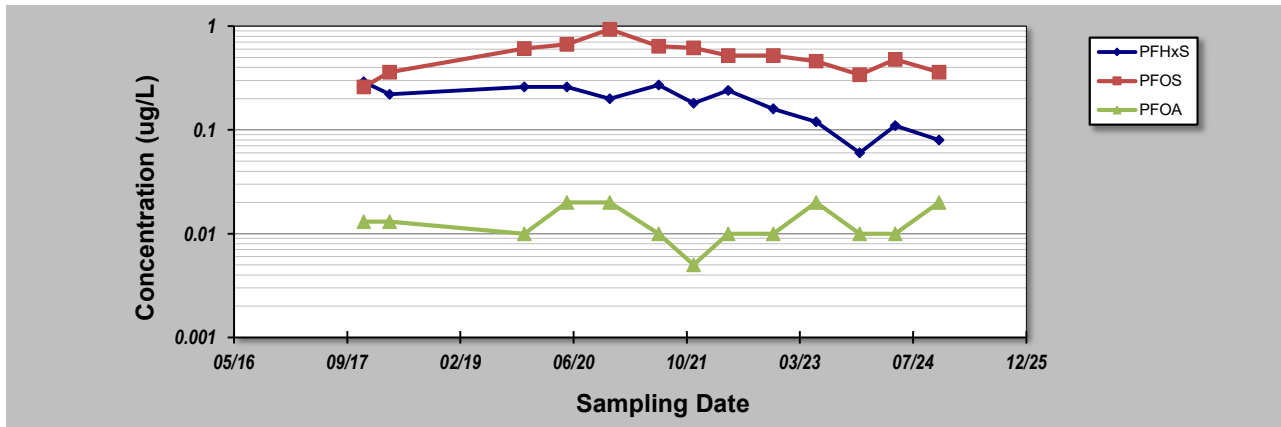
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW102**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-Dec-17	0.29	0.26	0.013				
2	28-Mar-18	0.22	0.36	0.013				
3	14-Nov-19	0.26	0.61	0.01				
4	19-May-20	0.26	0.67	0.02				
5	25-Nov-20	0.2	0.93	0.02				
6	29-Jun-21	0.27	0.64	0.01				
7	30-Nov-21	0.18	0.62	0.005				
8	3-May-22	0.24	0.52	0.01				
9	17-Nov-22	0.16	0.52	0.01				
10	25-May-23	0.12	0.46	0.02				
11	4-Dec-23	0.06	0.34	0.01				
12	9-May-24	0.11	0.48	0.01				
13	19-Nov-24	0.08	0.36	0.02				
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.41	0.34	0.39				
Mann-Kendall Statistic (S):		-55	-18	-4				
Confidence Factor:		>99.9%	84.7%	57.1%				
Concentration Trend:		Decreasing	Stable	Stable				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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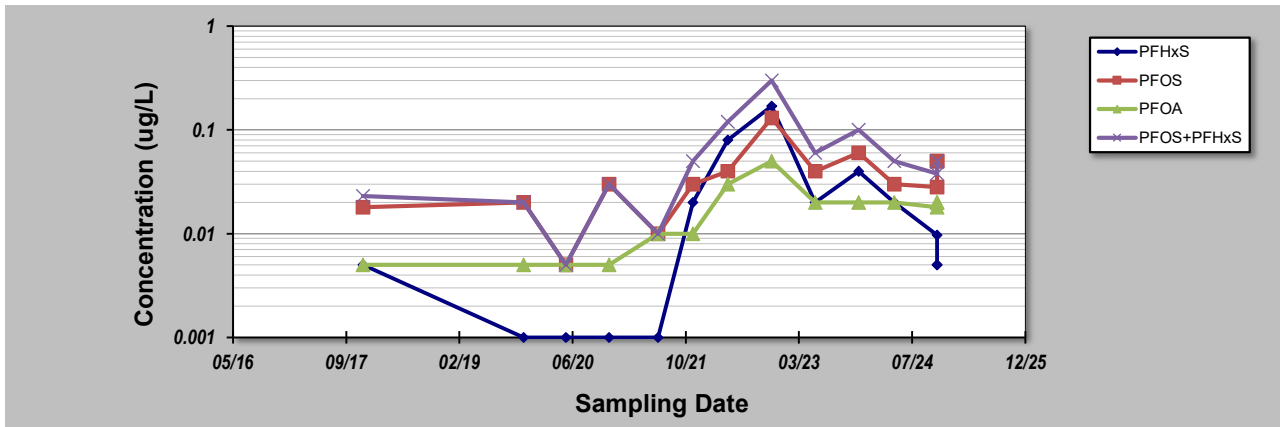
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25**
 Facility Name: **HMAS Cerberus**
 Conducted By:

Job ID: **0066-MW109**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	5-Dec-17	0.005	0.018	0.005	0.023			
2	15-Nov-19	0.001	0.02	0.005	0.02			
3	20-May-20	0.001	0.005	0.005	0.005			
4	26-Nov-20	0.001	0.03	0.005	0.03			
5	30-Jun-21	0.001	0.01	0.01	0.01			
6	2-Dec-21	0.02	0.03	0.01	0.05			
7	5-May-22	0.08	0.04	0.03	0.12			
8	15-Nov-22	0.17	0.13	0.05	0.3			
9	26-May-23	0.02	0.04	0.02	0.06			
10	4-Dec-23	0.04	0.06	0.02	0.1			
11	9-May-24	0.02	0.03	0.02	0.05			
12	14-Nov-24	0.0097	0.028	0.018	0.038			
13	14-Nov-24	0.005	0.05	0.02	0.05			
14	14-Nov-24	0.005	0.05	0.02	0.05			
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.72	0.79	0.73	1.16			
Mann-Kendall Statistic (S):		17	42	44	29			
Confidence Factor:		80.6%	98.9%	99.2%	93.7%			
Concentration Trend:		No Trend	Increasing	Increasing	Prob. Increasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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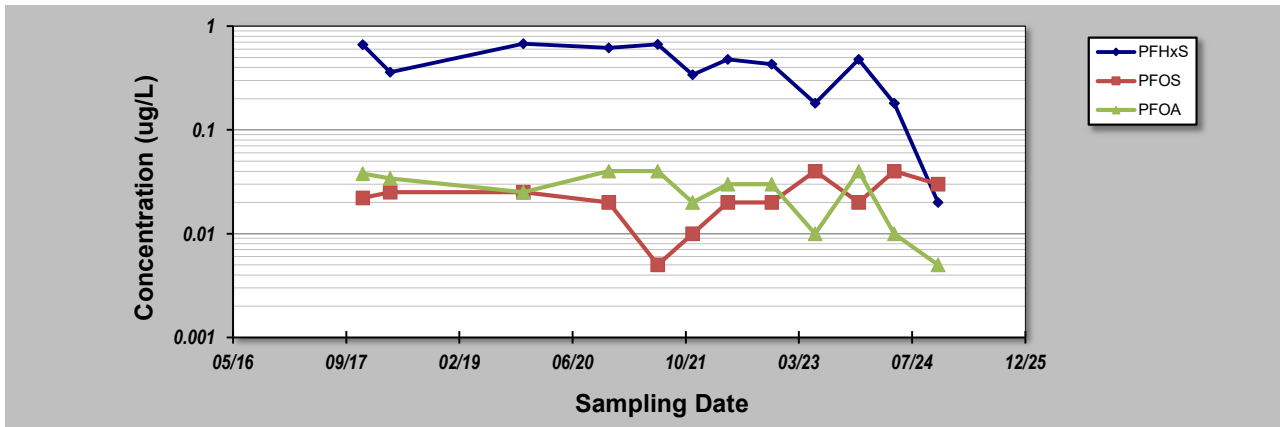
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **9-May-25**
 Facility Name: **HMAS Cerberus**
 Conducted By: **[REDACTED]**

Job ID: **0066-MW110**
 Constituent: **PFAS**
 Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	4-Dec-17	0.66	0.022	0.038				
2	5-Apr-18	0.36	0.025	0.034				
3	14-Nov-19	0.68	0.025	0.025				
4	25-Nov-20	0.62	0.02	0.04				
5	29-Jun-21	0.67	0.005	0.04				
6	30-Nov-21	0.34	0.01	0.02				
7	5-May-22	0.48	0.02	0.03				
8	15-Nov-22	0.43	0.02	0.03				
9	25-May-23	0.18	0.04	0.01				
10	4-Dec-23	0.48	0.02	0.04				
11	9-May-24	0.18	0.04	0.01				
12	19-Nov-24	0.02	0.03	0.005				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.51	0.45	0.48				
Mann-Kendall Statistic (S):		-36	12	-27				
Confidence Factor:		99.3%	77.0%	96.3%				
Concentration Trend:		Decreasing	No Trend	Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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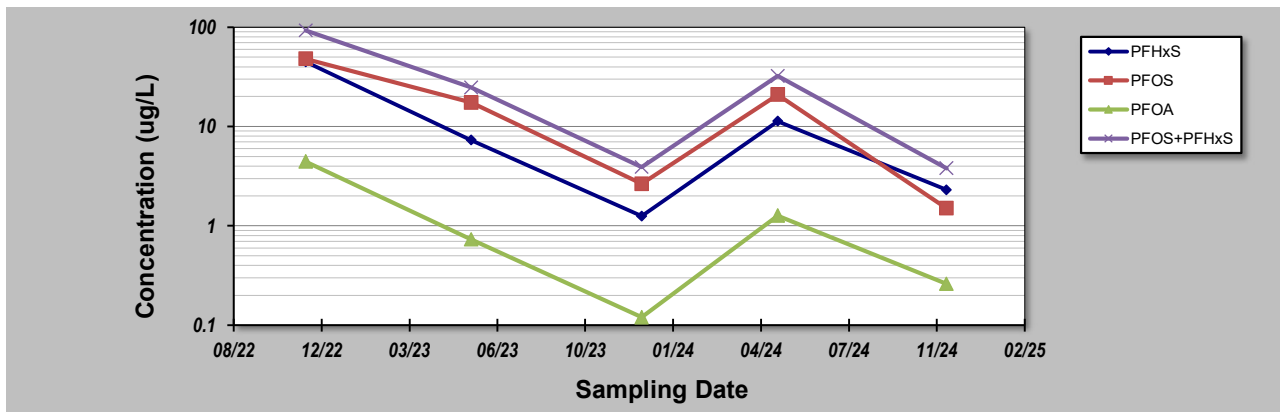
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 8-May-25		Job ID: 0066-MW121-Post Remediation	
Facility Name: HMAS Cerberus		Constituent: PFAS	
Conducted By: [REDACTED]		Concentration Units: ug/L	
Sampling Point ID:	PFHxS	PFOS	PFOA
	PFOS+PFHxS		

Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)			
1	17/11/2022	44.9	48	4.44	92.9
2	24/05/2023	7.29	17.4	0.73	24.7
3	4/12/2023	1.25	2.65	0.12	3.9
4	7/05/2024	11.3	20.9	1.27	32.2
5	15/11/2024	2.3	1.5	0.26	3.8
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Coefficient of Variation:	1.35	1.04	1.30	1.16
Mann-Kendall Statistic (S):	-4	-6	-4	-6
Confidence Factor:	75.8%	88.3%	75.8%	88.3%
Concentration Trend:	No Trend	No Trend	No Trend	No Trend



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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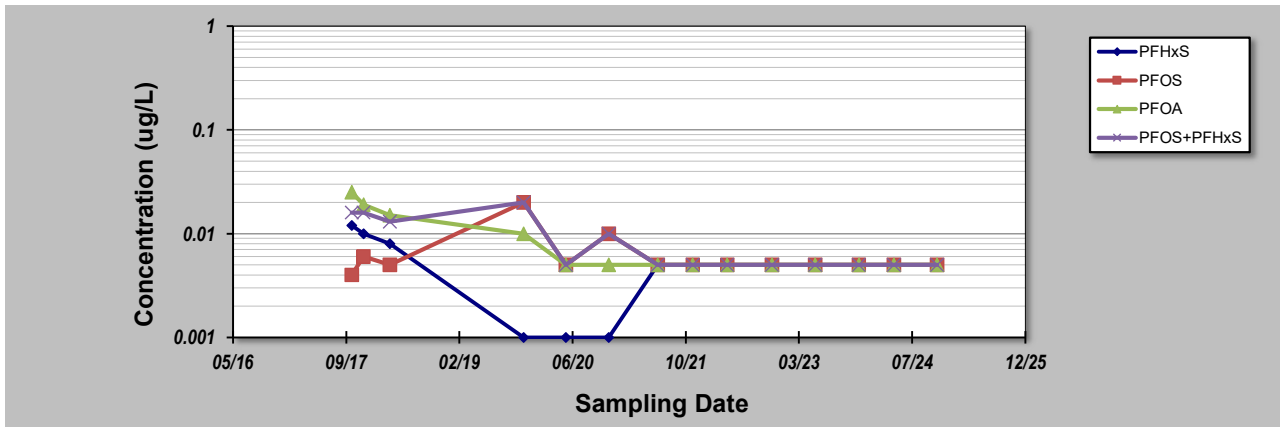
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25** Job ID: **0066-MW207**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17-Oct-17	0.012	0.004	0.025	0.016			
2	7-Dec-17	0.01	0.006	0.019	0.016			
3	4-Apr-18	0.008	0.005	0.015	0.013			
4	15-Nov-19	0.001	0.02	0.01	0.02			
5	19-May-20	0.001	0.005	0.005	0.005			
6	25-Nov-20	0.001	0.01	0.005	0.01			
7	29-Jun-21	0.005	0.005	0.005	0.005			
8	1-Dec-21	0.005	0.005	0.005	0.005			
9	3-May-22	0.005	0.005	0.005	0.005			
10	16-Nov-22	0.005	0.005	0.005	0.005			
11	25-May-23	0.005	0.005	0.005	0.005			
12	5-Dec-23	0.005	0.005	0.005	0.005			
13	7-May-24	0.005	0.005	0.005	0.005			
14	15-Nov-24	0.005	0.005	0.005	0.005			
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.61	0.64	0.76	0.63			
Mann-Kendall Statistic (S):		-12	-10	-46	-46			
Confidence Factor:		72.3%	68.6%	99.4%	99.4%			
Concentration Trend:		Stable	Stable	Decreasing	Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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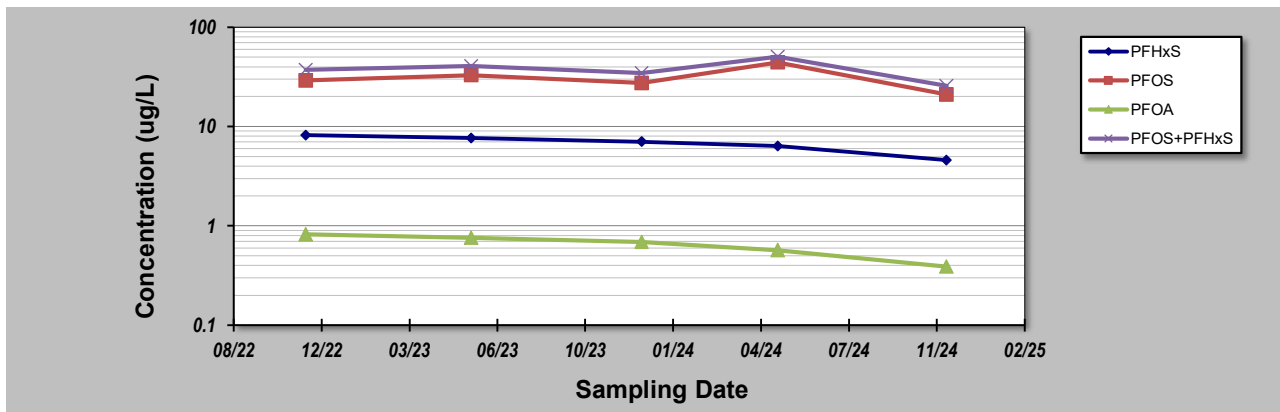
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **8-May-25** Job ID: **0066-MW212-Post Remediation**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17/11/2022	8.19	29.1	0.82	37.3			
2	24/05/2023	7.66	32.9	0.76	40.6			
3	4/12/2023	7.02	27.5	0.69	34.5			
4	7/05/2024	6.36	44.2	0.57	50.6			
5	15/11/2024	4.6	21	0.39	25.6			
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20								
Coefficient of Variation:		0.21	0.28	0.26	0.24			
Mann-Kendall Statistic (S):		-10	-2	-10	-2			
Confidence Factor:		99.2%	59.2%	99.2%	59.2%			
Concentration Trend:		Decreasing	Stable	Decreasing	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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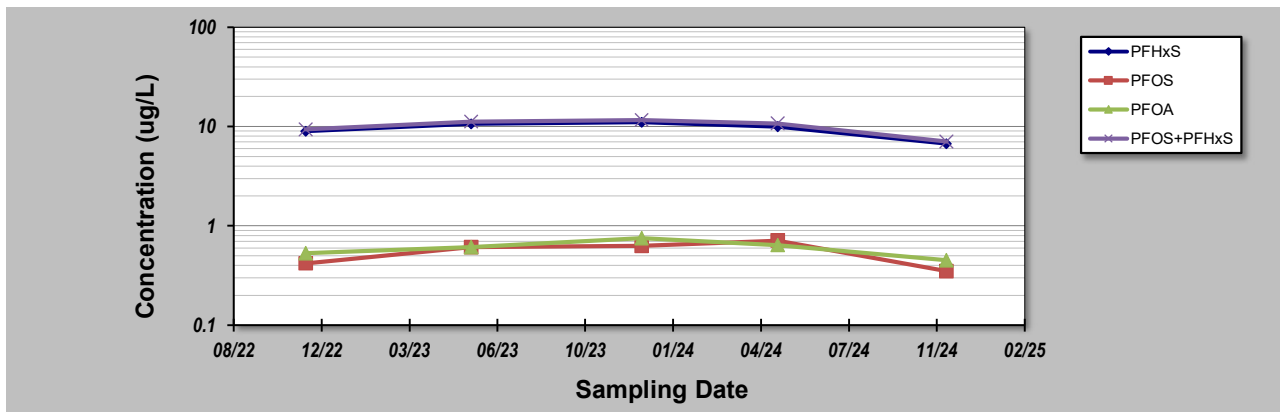
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **8-May-25** Job ID: **0066-MW213-Post Remediation**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17/11/2022	8.94	0.42	0.53	9.36			
2	24/05/2023	10.6	0.61	0.61	11.2			
3	4/12/2023	11	0.63	0.75	11.6			
4	7/05/2024	9.96	0.71	0.64	10.7			
5	15/11/2024	6.7	0.35	0.45	7.05			
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Coefficient of Variation:		0.18	0.28	0.19	0.18			
Mann-Kendall Statistic (S):		-2	2	0	-2			
Confidence Factor:		59.2%	59.2%	40.8%	59.2%			
Concentration Trend:		Stable	No Trend	Stable	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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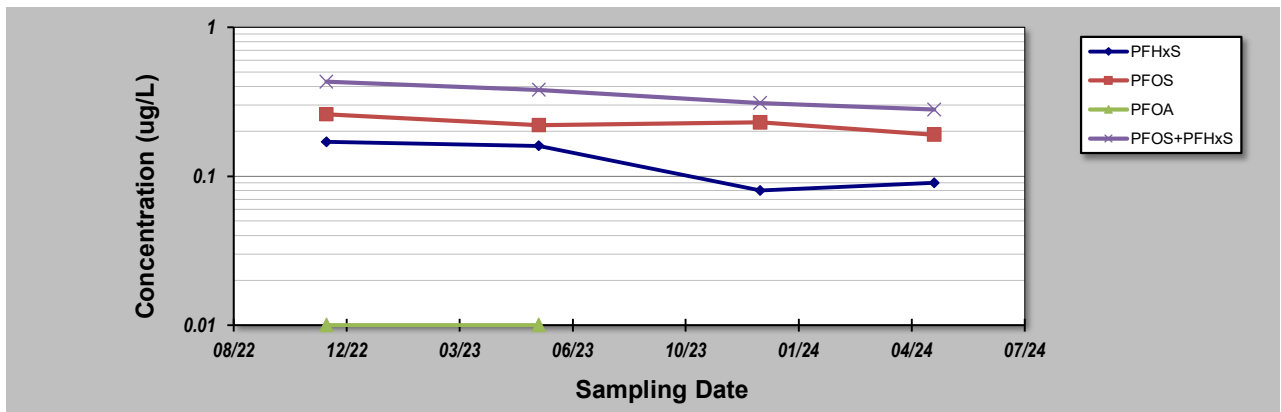
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **8-May-25** Job ID: **0066-MW214D-Post Remediation**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	17/11/2022	0.17	0.26	0.01	0.43			
2	24/05/2023	0.16	0.22	0.01	0.38			
3	6/12/2023	0.08	0.23	0.005	0.31			
4	8/05/2024	0.09	0.19	0.005	0.28			
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Coefficient of Variation:		0.37	0.13	0.00	0.19			
Mann-Kendall Statistic (S):		-4	-4	4	-6			
Confidence Factor:		83.3%	83.3%		95.8%			
Concentration Trend:		Stable	Stable		Decreasing			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

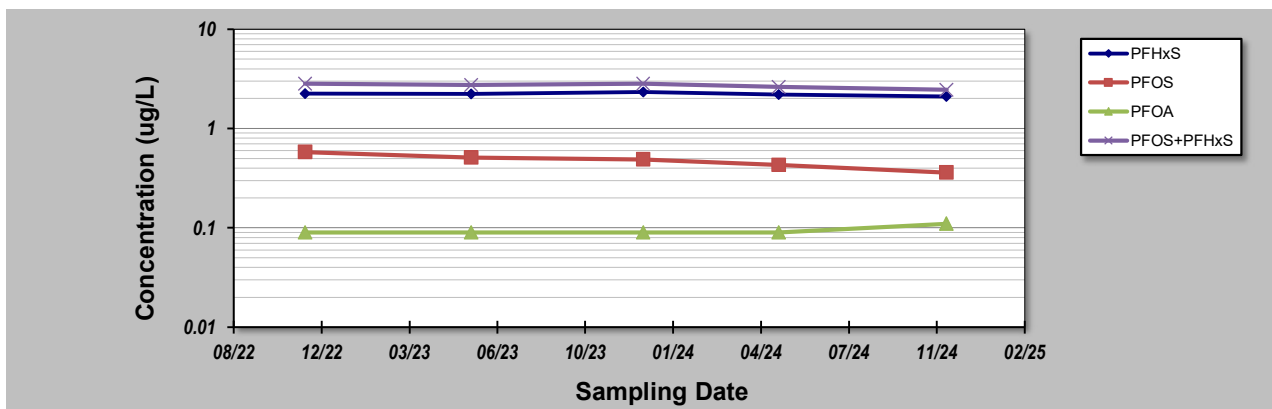
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for Constituent Trend Analysis

Evaluation Date:	8-May-25	Job ID:	0066-MW215D-Post Remediation					
Facility Name:	HMAS Cerberus	Constituent:	PFAS					
Conducted By:		Concentration Units:	ug/L					
Sampling Point ID:	PFHxS	PFOS	PFOA	PFOS+PFHxS				
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	16/11/2022	2.24	0.58	0.09	2.82			
2	24/05/2023	2.23	0.51	0.09	2.74			
3	6/12/2023	2.33	0.49	0.09	2.82			
4	8/05/2024	2.19	0.43	0.09	2.62			
5	15/11/2024	2.1	0.36	0.11	2.46			
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Coefficient of Variation:	0.04	0.18	0.10	0.06				
Mann-Kendall Statistic (S):	-6	-10	4	-7				
Confidence Factor:	88.3%	99.2%	75.8%	92.1%				
Concentration Trend:	Stable	Decreasing	No Trend	Prob. Decreasing				



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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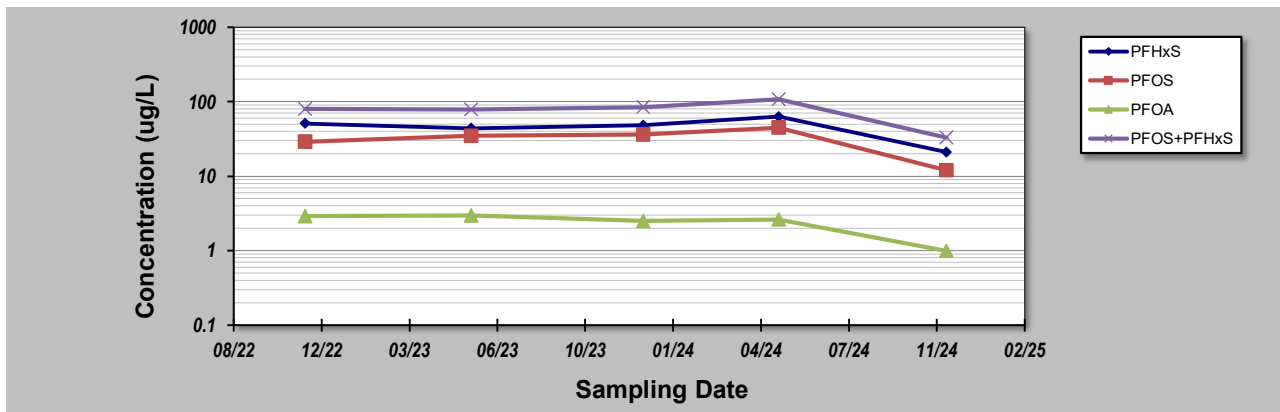
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **8-May-25** Job ID: **0066-MW215S-Post Remediation**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	16/11/2022	51.1	29	2.92	80.1			
2	24/05/2023	43.9	35	2.97	78.9			
3	6/12/2023	48.2	36.3	2.51	84.5			
4	8/05/2024	63.2	44.7	2.61	108			
5	15/11/2024	21	12	0.99	33			
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20								
Coefficient of Variation:		0.34	0.39	0.34	0.35			
Mann-Kendall Statistic (S):		-2	2	-6	0			
Confidence Factor:		59.2%	59.2%	88.3%	40.8%			
Concentration Trend:		Stable	No Trend	Stable	Stable			



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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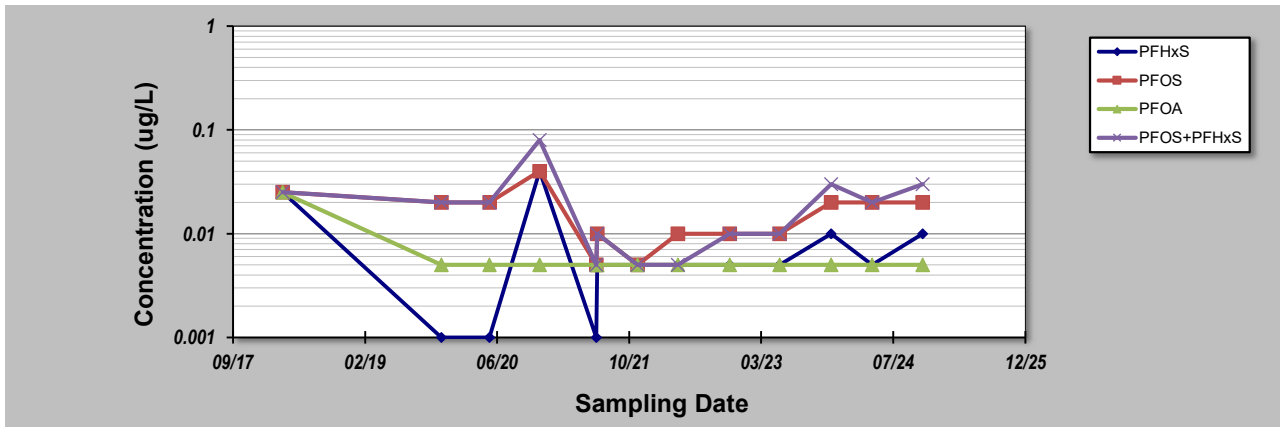
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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **23-Apr-25** Job ID: **0066-MW217D**
 Facility Name: **HMAS Cerberus** Constituent: **PFAS**
 Conducted By: **[REDACTED]** Concentration Units: **ug/L**

Sampling Point ID:		PFHxS	PFOS	PFOA	PFOS+PFHxS			
Sampling Event	Sampling Date	PFAS CONCENTRATION (ug/L)						
1	29-Mar-18	0.025	0.025	0.025	0.025			
2	20-Nov-19	0.001	0.02	0.005	0.02			
3	20-May-20	0.001	0.02	0.005	0.02			
4	26-Nov-20	0.04	0.04	0.005	0.08			
5	29-Jun-21	0.001	0.005	0.005	0.005			
6	2-Jul-21	0.005	0.01	0.005	0.01			
7	1-Dec-21	0.005	0.005	0.005	0.005			
8	4-May-22	0.005	0.01	0.005	0.005			
9	16-Nov-22	0.005	0.01	0.005	0.01			
10	24-May-23	0.005	0.01	0.005	0.01			
11	5-Dec-23	0.01	0.02	0.005	0.03			
12	8-May-24	0.005	0.02	0.005	0.02			
13	15-Nov-24	0.01	0.02	0.005	0.03			
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.23	0.58	0.85	0.96			
Mann-Kendall Statistic (S):		17	-5	-12	2			
Confidence Factor:		83.2%	59.4%	74.5%	52.4%			
Concentration Trend:		No Trend	Stable	Stable	No Trend			



Notes:

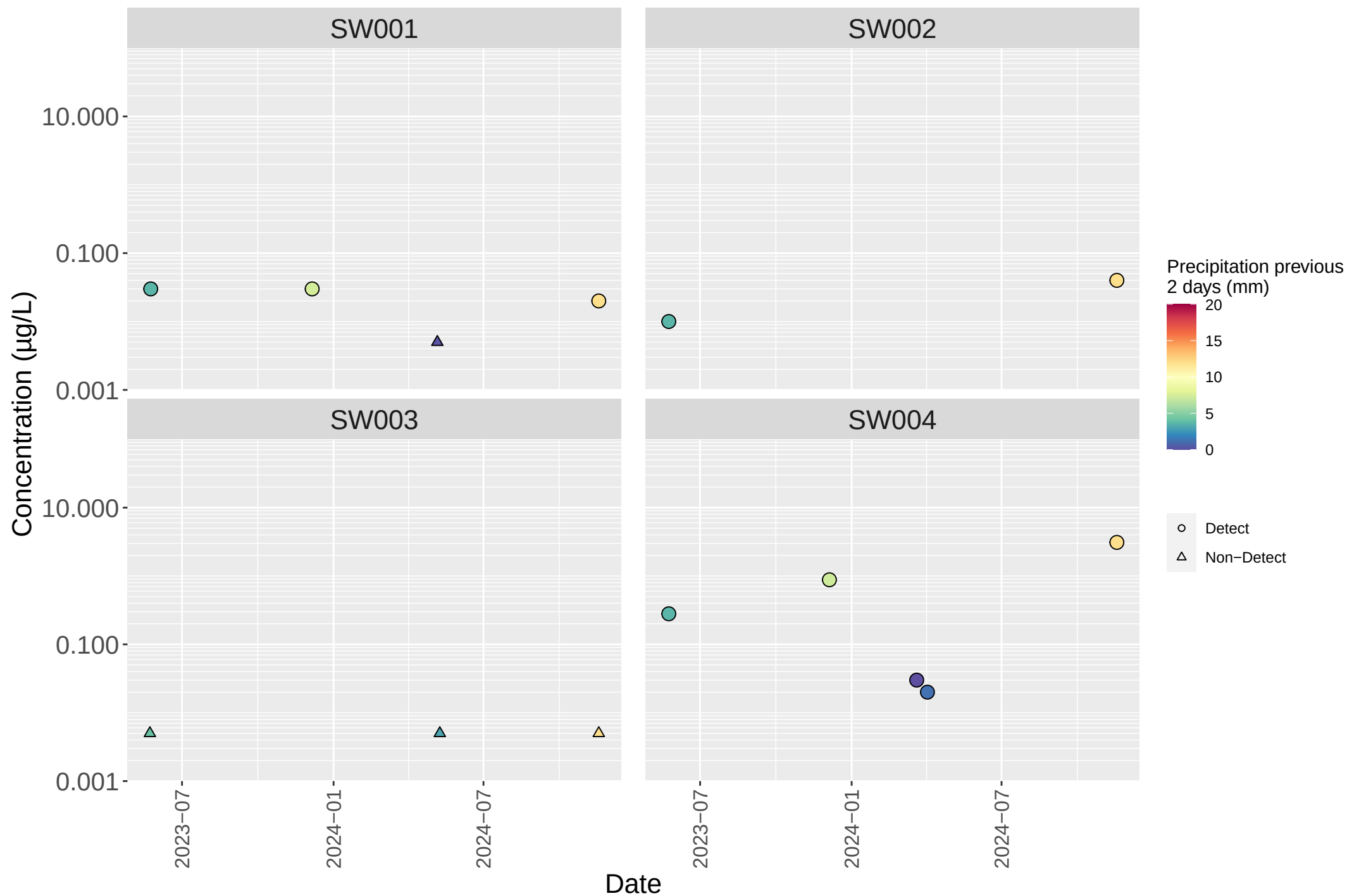
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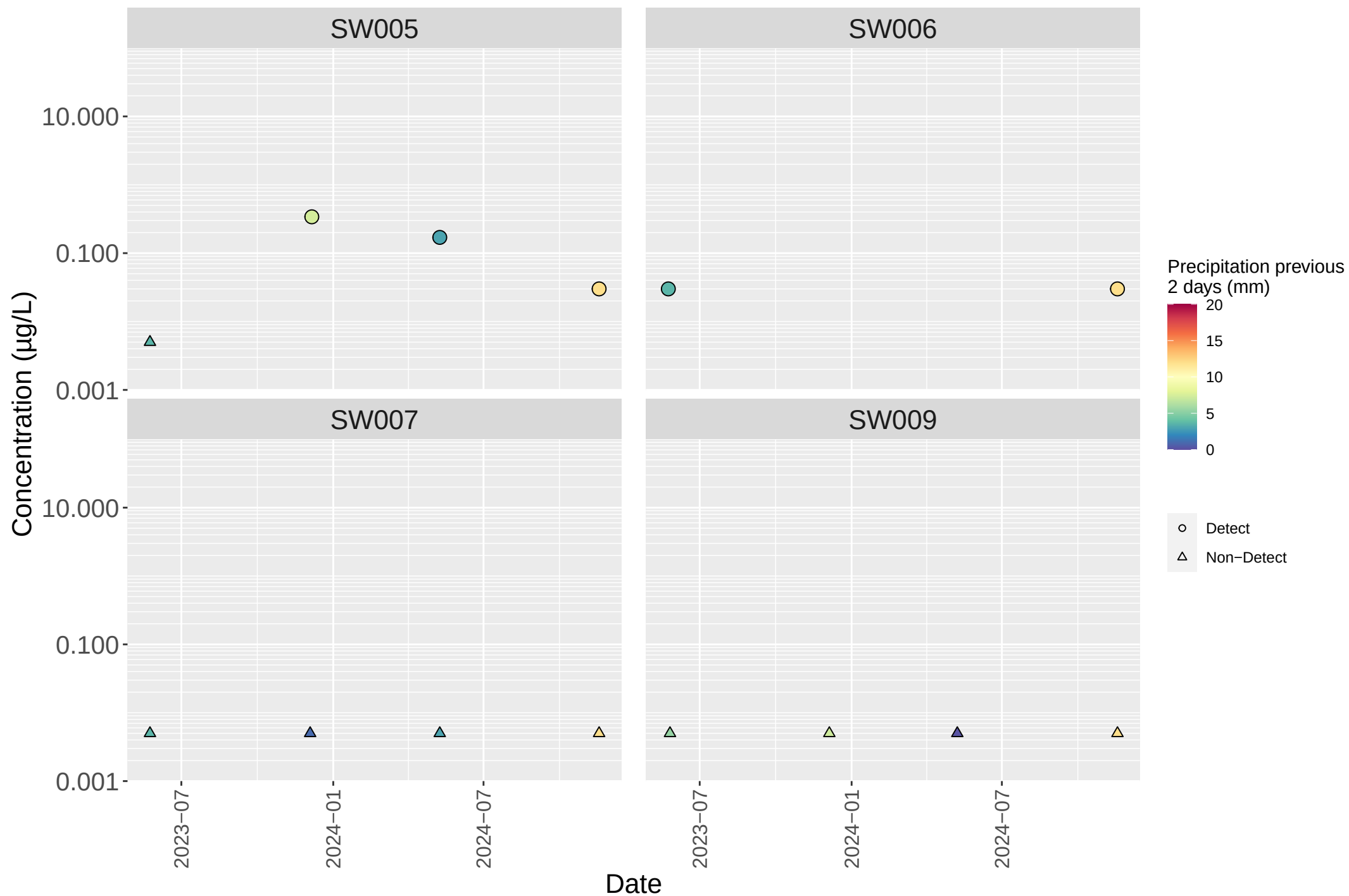
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Appendix G Cumulative rainfall deviation trend analysis

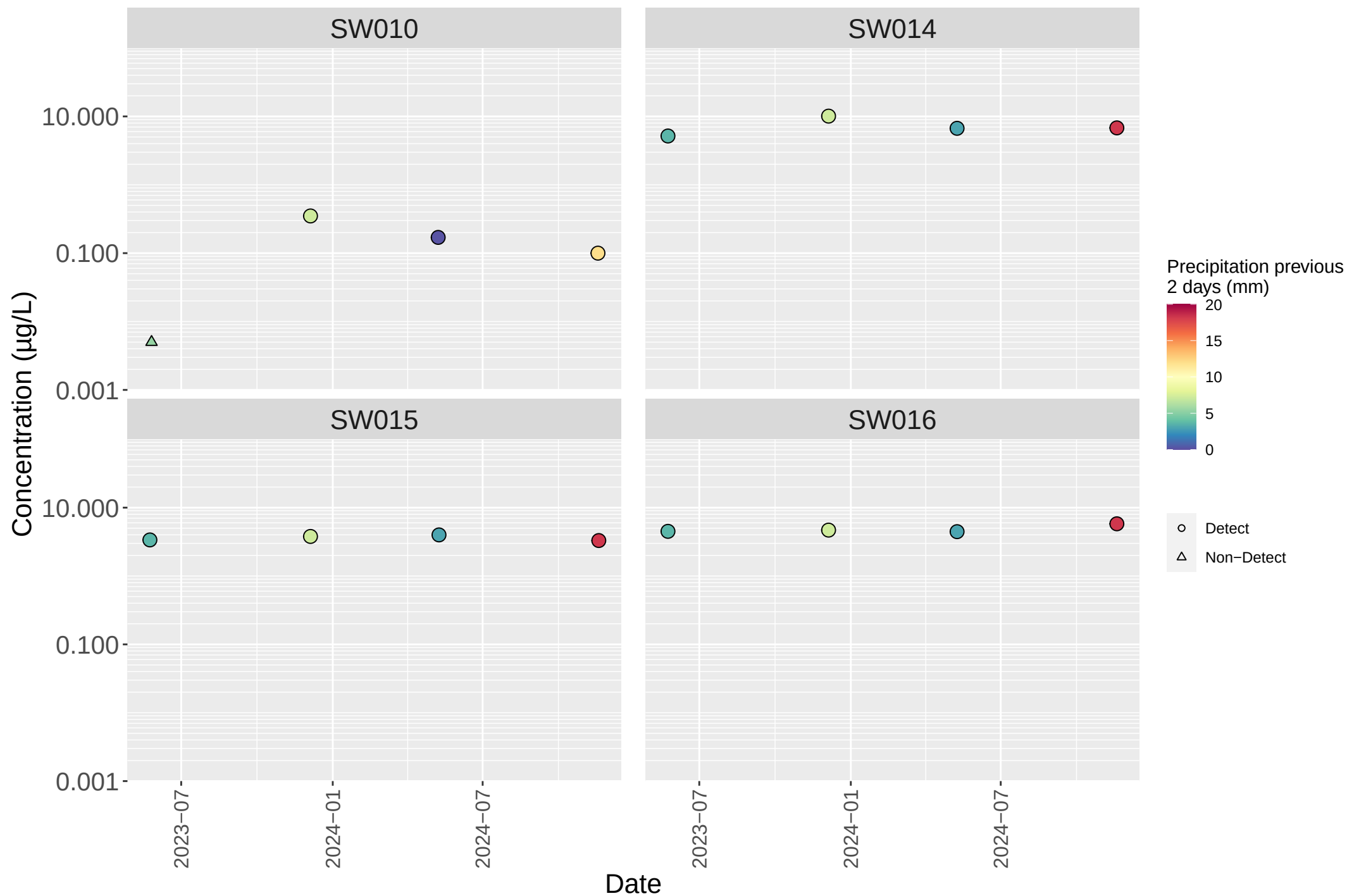
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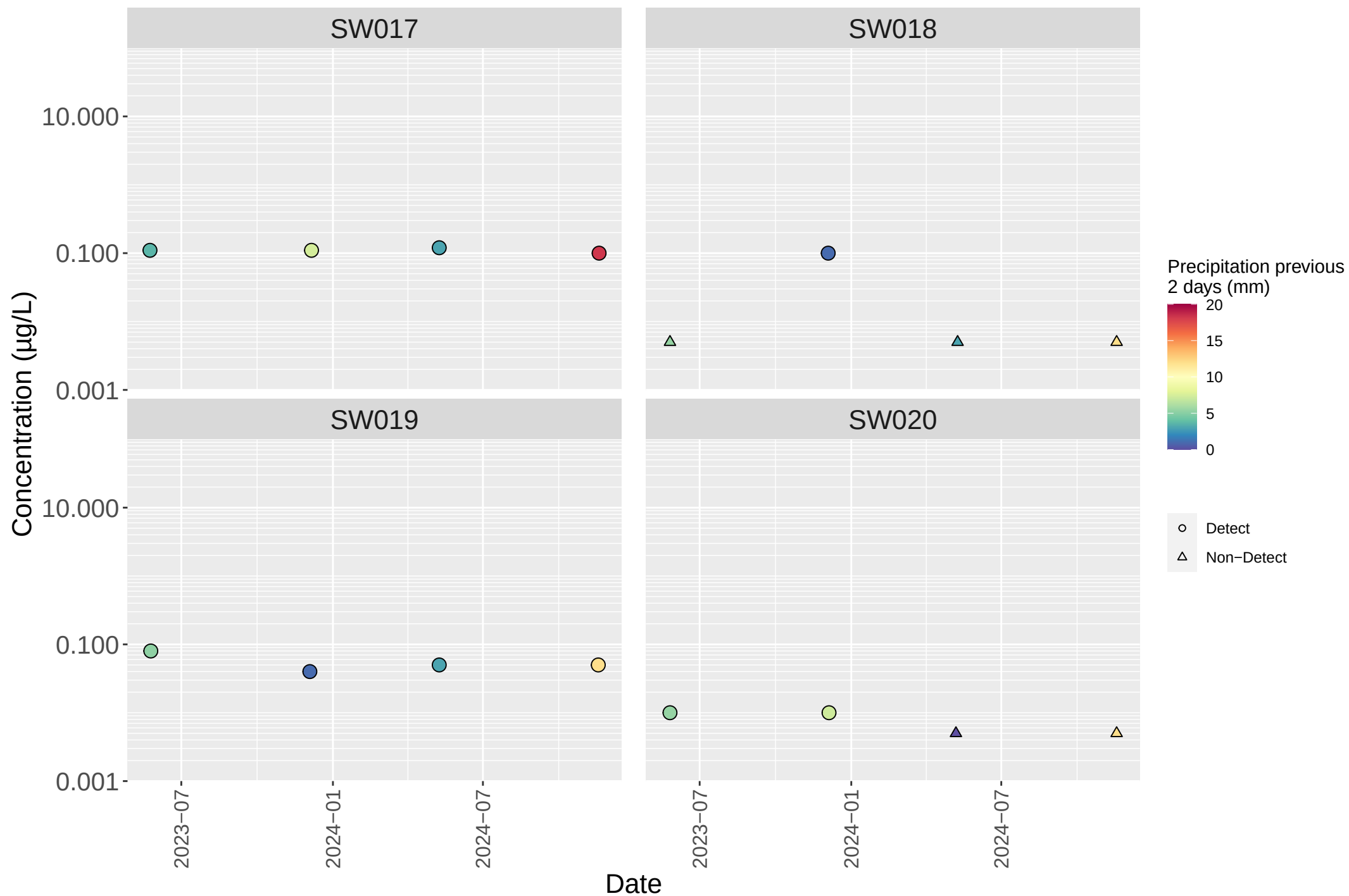
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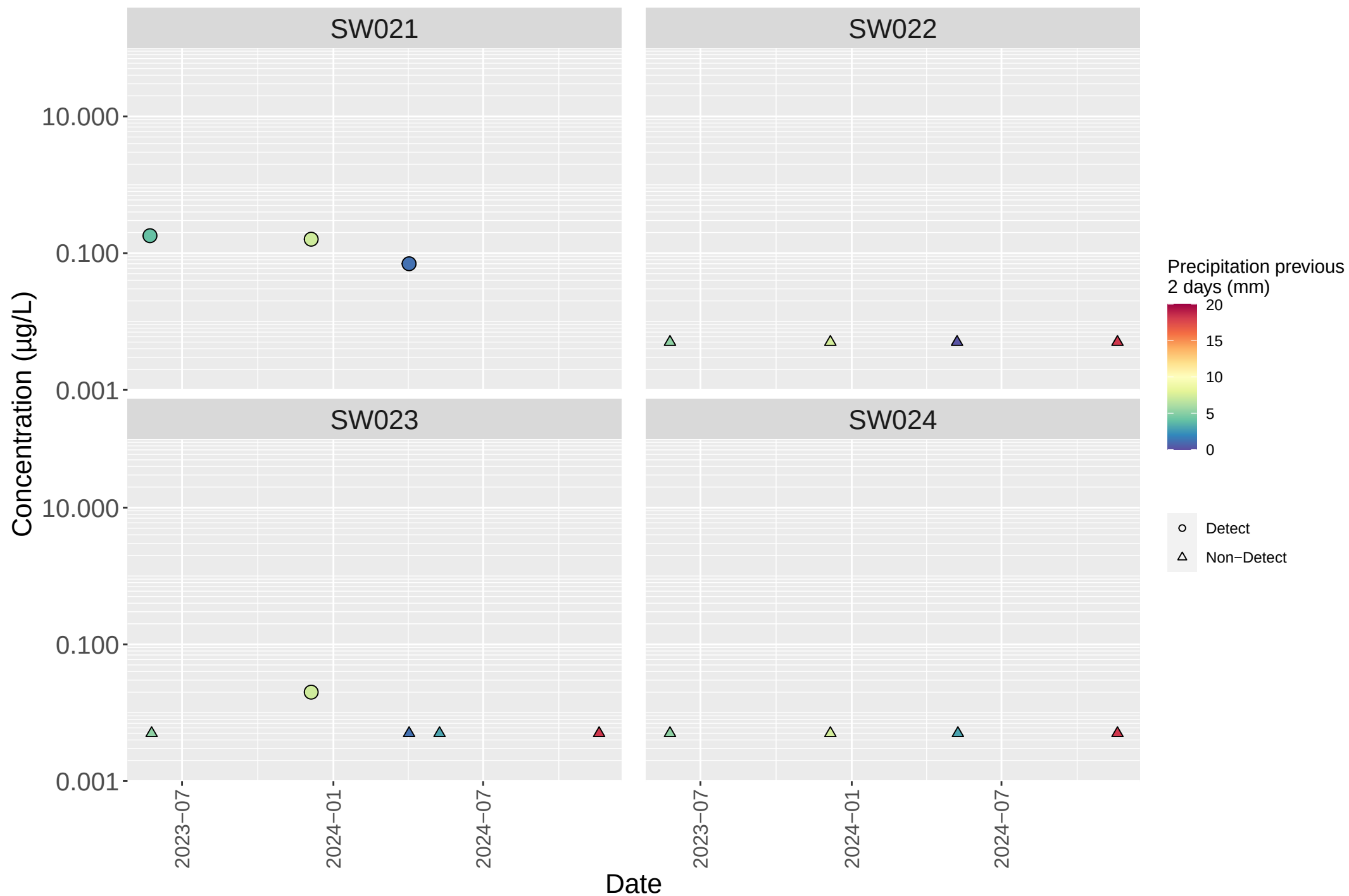
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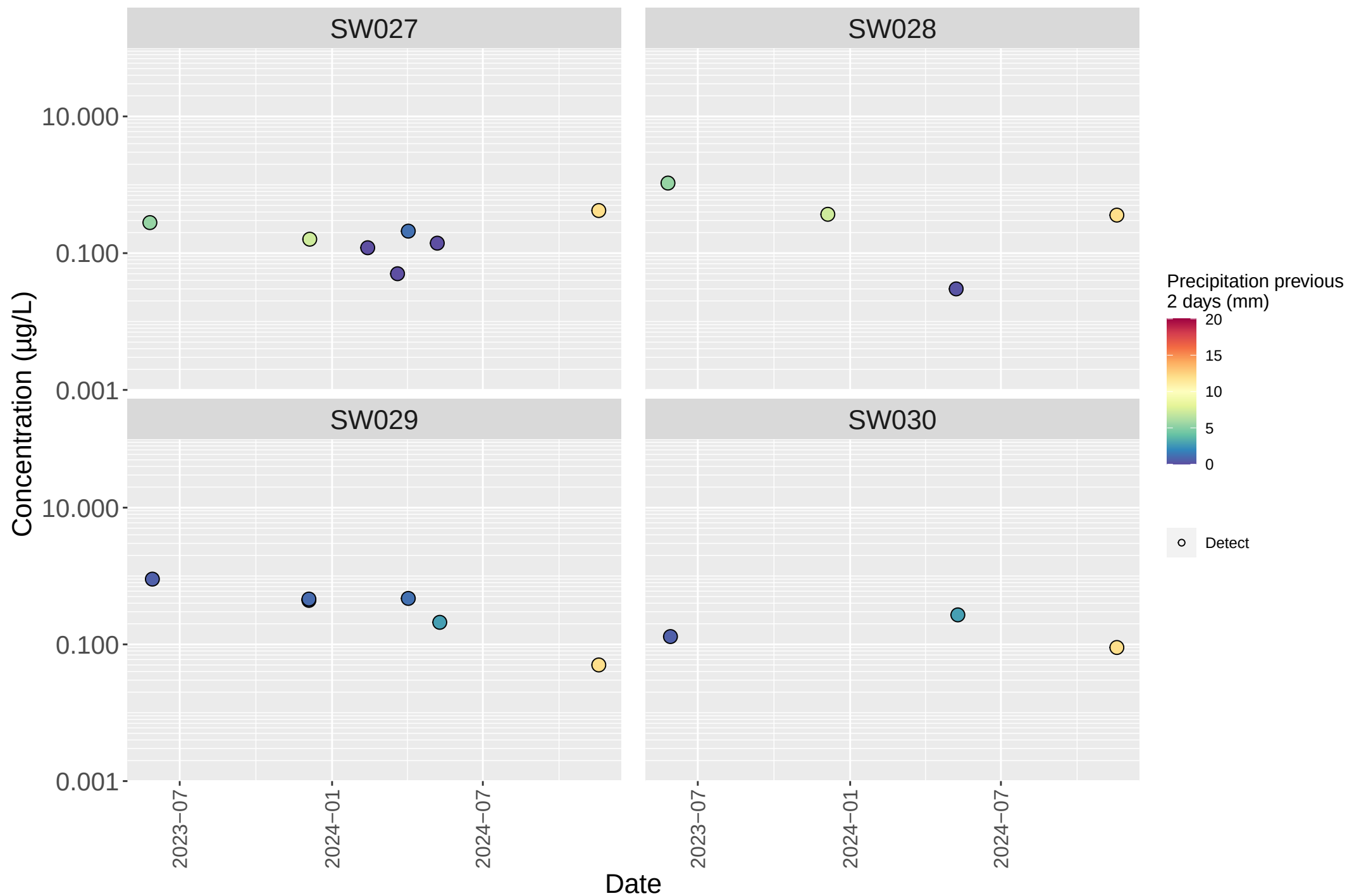
HMAS Cerberus: Surface Water (Sum of PFHxS and PFOS)



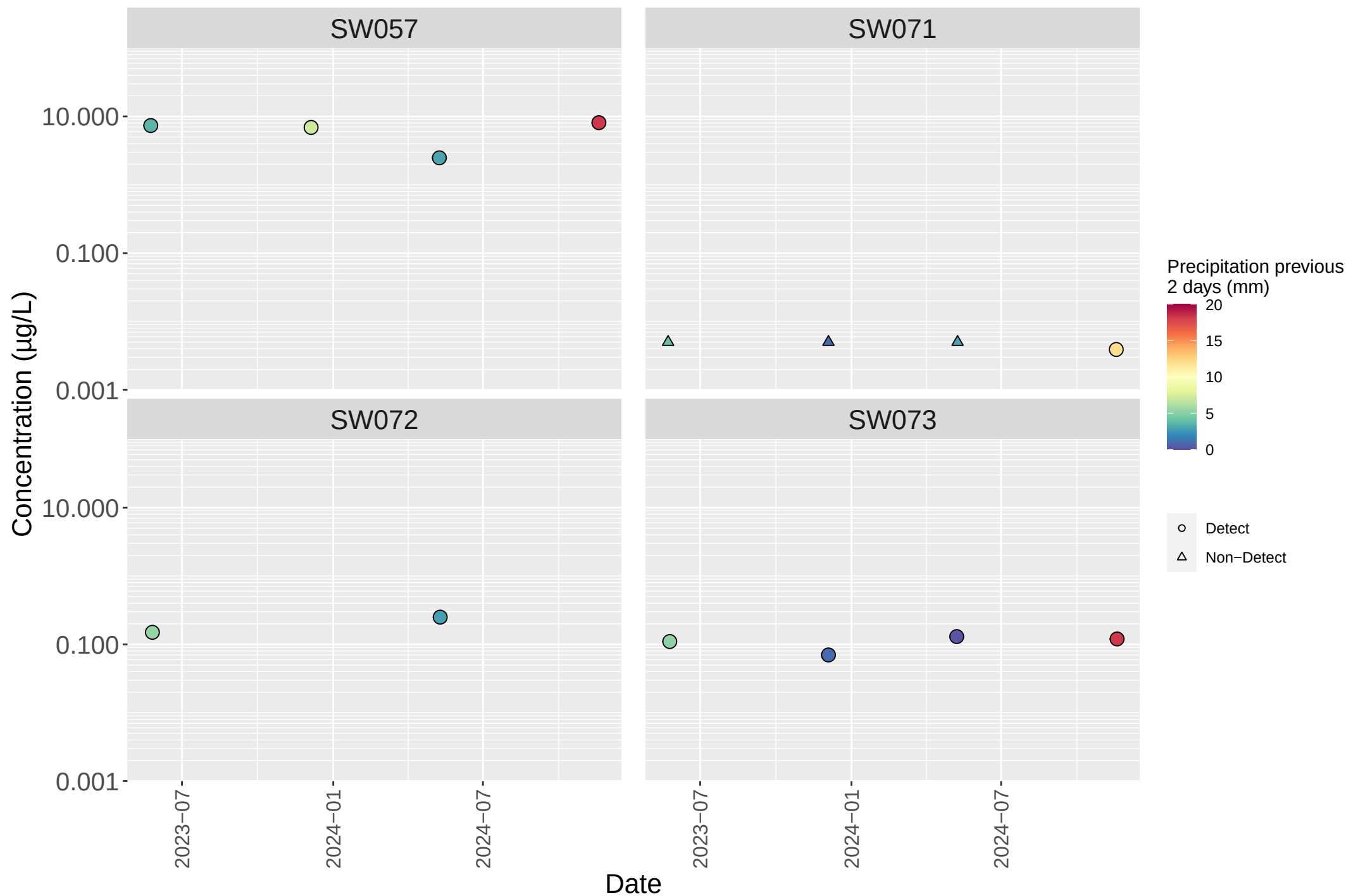
HMAS Cerberus: Surface Water (Sum of PFHxS and PFOS)



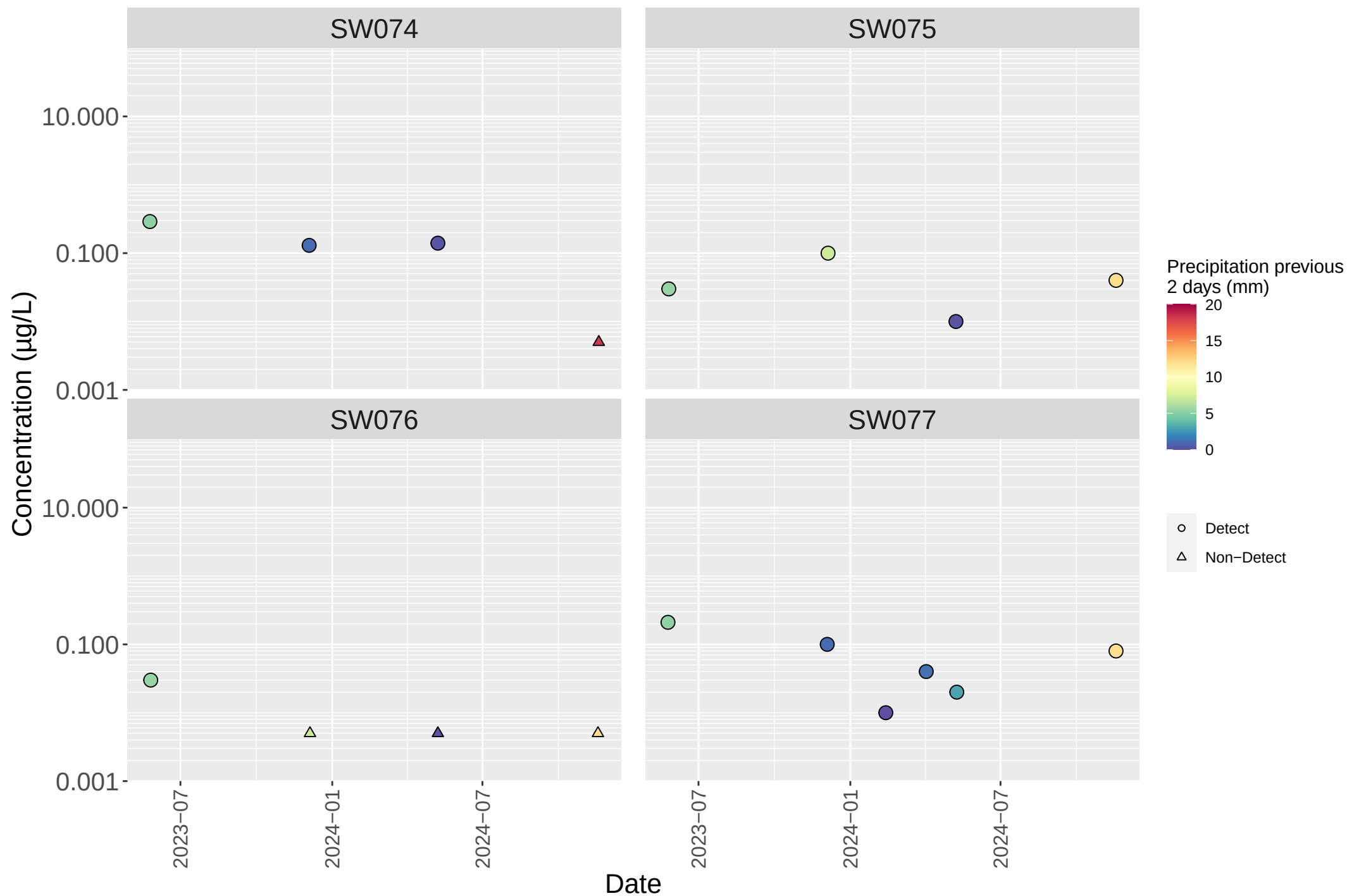
HMAS Cerberus: Surface Water (Sum of PFHxS and PFOS)



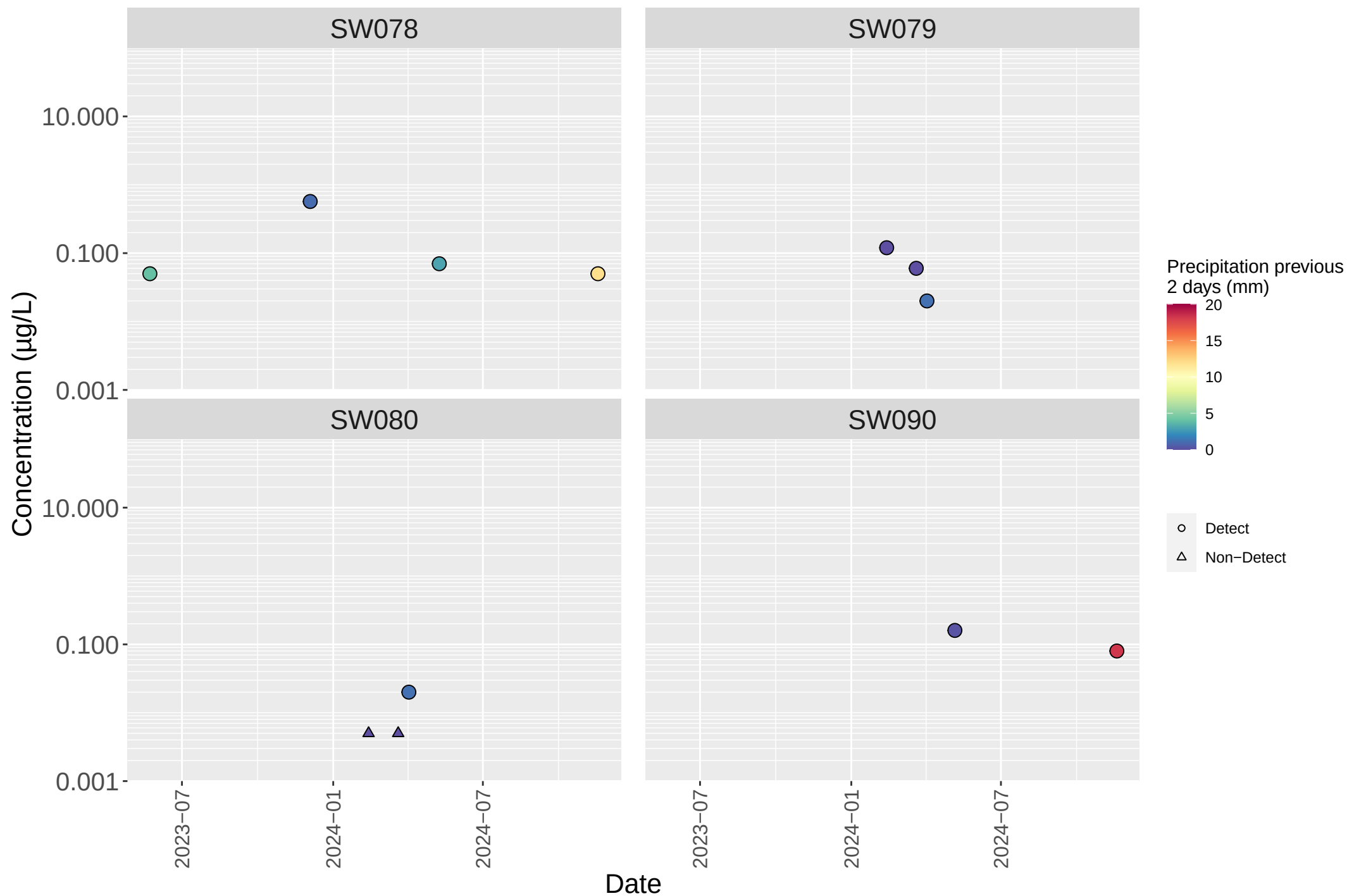
HMAS Cerberus: Surface Water (Sum of PFHxS and PFOS)



HMAS Cerberus: Surface Water (Sum of PFHxS and PFOS)



HMAS Cerberus: Surface Water (Sum of PFHxS and PFOS)



Appendix H Linear regression analysis

Table I- 1 Linear regression analysis groundwater

Well ID	Intercept	Slope	p-value	R2	Adjusted R2	Comment
MW017	15.09	2.0E-02	0.86	2.9E-03	0.00	No significant correlation
MW025	2.52	1.9E-02	0.46	6.9E-02	0.00	No significant correlation
MW028	1.04	1.5E-02	0.02	4.2E-01	0.37	Residuals indicate linear regression is not appropriate.
MW064	1.41	-1.6E-03	0.87	4.2E-03	0.00	No significant correlation
MW067	77.69	-1.8E-01	0.51	1.2E-01	0.00	No significant correlation
MW070	2.50	2.8E-02	0.01	9.8E-01	0.96	Residuals indicate linear regression is not appropriate.
MW074	4.53	-1.3E-02	0.08	8.6E-01	0.78	Potential relationship between rainfall and concentrations.
MW075	4.33	-3.2E-02	0.43	3.3E-01	0.00	No significant correlation
MW121	29.63	4.0E-01	0.33	9.4E-02	0.00	No significant correlation
MW212	42.11	-9.0E-03	0.94	6.1E-04	0.00	No significant correlation
MW213	10.54	1.4E-02	0.70	1.6E-02	0.00	No significant correlation
MW214D	11.97	-9.2E-02	0.27	1.2E-01	0.03	No significant correlation
MW215D	3.77	-5.8E-03	0.79	7.5E-03	0.00	No significant correlation
MW215S	44.38	1.9E-01	0.62	2.6E-02	0.00	No significant correlation
MW218	0.01	-1.4E-05	0.53	4.1E-02	0.00	No significant correlation
MW054	0.12	-7.8E-04	0.56	3.1E-02	0.00	No significant correlation

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			Name	Signature	Date
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