

JBS&G (43017-59716)

03 November 2014

Doug Wu  
Project Manager  
Boulderstone Pty Ltd  
Via email: [Doug.Wu@lendlease.com](mailto:Doug.Wu@lendlease.com)

**AMR232 - Daily Airborne Asbestos Fibre Monitoring  
Randwick Barracks, 373a Avoca Street, Randwick NSW**

Dear Doug,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Randwick Barracks Project site on **31 October 2014**.

All air monitoring was completed in strict accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

-----  
If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email [msamuel@jbsg.com.au](mailto:msamuel@jbsg.com.au).

Yours sincerely



Michael Samuel  
Licensed Asbestos Assessor (LAA 000157)  
**JBS&G Australia Pty Ltd**

**Attachment 1 – Daily Airborne Asbestos Fibre Monitoring Report**

# Certificate of Analysis



**NATA Accredited**  
**Accreditation Number 1261**  
**Site Number 18217**

Accredited for compliance with ISO/IEC 17025.  
The results of the tests, calibrations and/or  
measurements included in this document are  
traceable to Australian/national standards.

**JBS & G Australia (NSW & WA) P/L**  
**Level 1, 50 Margaret St**  
**Sydney**  
**NSW 2000**

**Attention:** Michael Samuel  
**Report** 437213-AFC  
**Project Name** RANDWICK 43017  
**Received Date** Oct 31, 2014  
**Date Reported** Oct 31, 2014

## **METHODOLOGY:**

Asbestos Sampling      Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]

Pump Calibration      Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.

Asbestos Counting      Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

**Project Name**                 RANDWICK 43017  
**Project ID**  
**Date Sampled**             Oct 31, 2014  
**Report**                        437213-AFC

Eurofins   mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
14-Oc23930	CM389814	SKC 144	NORTH PORTION OF SITE ADJACENT TO SITE SHEDS	7:45	12:40	1.5	1.5	1.5	< 0.01
14-Oc23931	CM389877	SKC 130	CENTRAL AREA OF CONSTRUCTION SITE	7:47	12:42	1.5	1.5	1.5	< 0.01
14-Oc23932	CM389883	SKC 146	NORTH PORTION OF SITE ADJACENT TO CAR PARK	7:49	12:44	1.5	1.5	1.5	< 0.01
14-Oc23933	CM389832	SKC 136	WEST BOUNDARY, AVOCA ST	7:51	12:46	1.5	1.5	1.5	< 0.01
14-Oc23934	CM389839	SKC 478	SOUTH BOUNDARY, BESIDE HOUSES	7:53	12:48	1.5	1.5	1.5	< 0.01
14-Oc23935	CM389775	SKC 152	SOUTH FACE OF CONSTRUCTION SITE	7:55	12:50	1.5	1.5	1.5	< 0.01
14-Oc23936	CM389764	BLANK	BLANK	-	-	-	-	-	0 fibre / 100 fields

### Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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.

<b>Description</b>	<b>Testing Site</b>	<b>Extracted</b>	<b>Holding Time</b>
Asbestos – LTM-ASB-8010	Sydney	Oct 31, 2014	Indefinite

**Company Name:** JBS & G Australia (NSW & WA) P/L  
**Address:** Level 1, 50 Margaret St  
Sydney  
NSW 2000  
**Project Name:** RANDWICK 43017

**Order No.:**  
**Report #:** 437213  
**Phone:** 02 8245 0300  
**Fax:**

**Received:** Oct 31, 2014 1:30 PM  
**Due:** Oct 31, 2014  
**Priority:** Same day  
**Contact Name:** Michael Samuel

**Eurofins | mgt Client Manager: Charl Du Preez**

Asbestos (concentration of fibres in air)

**Sample Detail**

**Laboratory where analysis is conducted**

Melbourne Laboratory - NATA Site # 1254 & 14271

Sydney Laboratory - NATA Site # 18217

Brisbane Laboratory - NATA Site # 20794

**External Laboratory**

Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
CM389814	Oct 31, 2014	12:40PM	Air	S14-Oc23930	X
CM389877	Oct 31, 2014	12:42PM	Air	S14-Oc23931	X
CM389883	Oct 31, 2014	12:44PM	Air	S14-Oc23932	X
CM389832	Oct 31, 2014	12:46PM	Air	S14-Oc23933	X
CM389839	Oct 31, 2014	12:48PM	Air	S14-Oc23934	X
CM389775	Oct 31, 2014	12:50PM	Air	S14-Oc23935	X
CM389764	Oct 31, 2014		Air	S14-Oc23936	X

## Eurofins | mgt Internal Quality Control Review and Glossary

### General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

### Holding Times

Please refer to '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 prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

### UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

### TERMS

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>COC</b>	Chain of custody
<b>SRA</b>	Sample Receipt Advice
<b>ISO</b>	International Standards Organisation
<b>AS</b>	Australian Standards
<b>WA DOH</b>	Western Australia Department of Health
<b>NOHSC</b>	National Occupational Health and Safety Commission
<b>ACM</b>	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
<b>FA</b>	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
<b>PACM</b>	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
<b>AF</b>	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
<b>AC</b>	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

### Comments

Volume Measurement : M HUNTER, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

### Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
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
N/A	Not applicable

### Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



**Glenn Jackson**

**National Laboratory Manager**

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Eurofins | mgt 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 | mgt 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.