

Asbestos Air Monitoring Report



11 March 2023

Randwick City Council
30 Frances Street
Randwick NSW 2031

Attention: Joe Santangelo
joe.santangelo@randwick.nsw.gov.au

RE: Asbestos Air Monitoring Report

Dear Joe Santangelo

Please find below Asbestos air monitoring report for:

Site:	Little Bay Beach
Location:	Background air monitoring

All works have been completed in accordance with relevant state WHS Legislation and approved Codes of Practices.

See following pages for results.

Regards,

A handwritten signature in black ink, appearing to read "Kieran Mackowski".

Kieran Mackowski
Occupational Hygienist
BSc Environmental Earth Science
11/03/2023



Asbestos Air Monitoring Report

Requested by:	
Client Contact Name	Joe Santangelo
Client Contact Number	0436839760
Client Contact Email	joe.santangelo@randwick.nsw.gov.au
Site:	
Address	2 Coast Hospital Rd, Little Bay NSW 2036
Local Government Area	Randwick City Council
Site Boundary	
Air Monitoring Locations	



Air Monitoring Details:	
Date of Field Work:	11/03/2023
Start Time:	08:00
Trinitas Consultant:	Kieran Mackowski BSc Environmental Earth Science
Sampling Type:	Asbestos
Temperature	22°C

Asbestos Air Monitoring Report



Wind Speed	12km/h
Scope of Work:	Background air monitoring

Methodology:

Asbestos fibre static air monitoring and analysis was conducted in accordance with Guidance Note on the Membrane Filter Method for the Estimation of Airborne Asbestos Fibres (NOHSC:3003: April 2005) and in-house procedures of NATA accredited laboratory for the estimation of airborne fibres.

The sample collection was performed using SKC portable sampling pumps fitted with sampling cassettes containing 25 mm membrane filters that were flow tested at the commencement and completion of sampling.

Exposure Standard

The Australian exposure standard for asbestos fibers is 0.1 fibres/ml of air and the action limit for asbestos fibres is 0.01 fibres/ml as per the NSW WHS Regulations 2017.

Sample Location / Person Name	AM Type	Sample ID	Average Flow Rate (L/Min)	Time On	Total Sampling Time (Min)	Total Volume (L)	Results
Main entry to beach - southern beach	B	DH153613	4.0	08:00	145	580.00	<0.01 f/ml
South Beach, on boundary fence to dunes	B	DH153627	4.0	08:05	142	568.00	<0.01 f/ml
Field blank	BI	DH153618					0 fibres / 100 fields

AM Type Legend

B= Background **Co**= Control **Cl** = Clearance **BI**= Field Blank **Pe**= Personal



Comments/Recommendations:

All air monitoring results were below the exposure standard for asbestos fibers during removal works <0.01 f/ml

NATA accredited laboratory results are provided within **Appendix 2**.

Disclaimer:

The results within this report relate only to the sampling locations specified and their analysis. This report shall not be reproduced, except in full.

Prepared By	Approved By
 Kieran Mackowski Occupational Hygienist BSc Environmental Earth Science 11/03/2023	 Denny Bolatti Principal Occupational Hygienist Licensed Asbestos Assessor 001132 17/03/2023



Appendix 1: Air Monitoring Locations



Location: Main entry to beach - southern beach
Result: <0.01 f/ml
Image Id: 230311-080242



Location: South Beach, on boundary fence to dunes
Result: <0.01 f/ml
Image Id: 230311-080433



Location: Field blank
Result: 0 fibres / 100 fields
Image Id: 230314-112155

Asbestos Air Monitoring Report



How to Contact Us

Mail Trinitas Group
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Trinitas Group Pty Ltd

ABN 12 161 759 708

Disclaimer: This report is prepared for the use of the recipient for the purpose of risk evaluation, risk improvement and or loss control. It is based upon prevailing conditions at the time of inspection, our observations and information provided by the client contact/s at the site. No responsibility is accepted, and liability disclaimed for the use of this report for any other purpose, or by any third party, nor does it imply that no other hazardous



Asbestos Air Monitoring Report



Appendix 2: Laboratory Analysis Results



Supplier on scheme
Performance and Management Services



Trinitas Group Pty Ltd
Level 3, 24 Hunter Street
Parramatta
NSW 2150



NATA Accredited
Accreditation Number 1261
Site Number 18217

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: Denny Bolatti
Report 972191-AFA
Project Name LITTLE BAY BEACH
Received Date Mar 15, 2023
Date Reported Mar 16, 2023

METHODOLOGY:

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 LITTLE BAY BEACH
Project ID
Date Sampled Mar 11, 2023
Report 972191-AFA

Eurofins Sample No.	Client Sample ID	Location	Fibres/100 fields
23-Ma0036426	DH153613	MAIN ENTRY TO BEACH SOUTHERN BEACH	0/100
23-Ma0036427	DH153618	BLANK	0/100
23-Ma0036428	DH153627	SOUTH BEACH, ON BOUNDARY FENCE TO DUNES	0/100

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
Asbestos - LTM-ASB-8010	Sydney	Mar 15, 2023	Indefinite

Company Name:	Trinitas Group Pty Ltd	Order No.:		Received:	Mar 15, 2023 4:59 PM
Address:	Level 3, 24 Hunter Street Parramatta NSW 2150	Report #:	972191	Due:	Mar 16, 2023
Project Name:	LITTLE BAY BEACH	Phone:	02 8810 4445	Priority:	1 Day
		Fax:	02 8016 0875	Contact Name:	Denny Bolatti
Eurofins Analytical Services Manager : Bonnie Pu					

Sample Detail						Asbestos (amount of fibres in air)
Sydney Laboratory - NATA # 1261 Site # 18217						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	DH153613	Mar 11, 2023	10:25AM	Air	S23-Ma0036426	X
2	DH153618	Mar 11, 2023		Air	S23-Ma0036427	X
3	DH153627	Mar 11, 2023	10:27AM	Air	S23-Ma0036428	X
Test Counts						3

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. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).

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:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (% w/w)
F/field	Airborne fibre filter loading as Fibres (N) per Fields counted (n)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (C)
g, kg	Mass, e.g. of whole sample (M) or asbestos-containing find within the sample (m)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (V = r x t)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (r)
min	Time (t), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration:
$$C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right)$$

Asbestos Content (as asbestos):
$$\% w/w = \frac{(m \times PA)}{M}$$

Weighted Average (of asbestos):
$$\%_{WA} = \frac{\sum (m \times PA)_x}{x}$$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 <i>Appendix 2</i> , else assumed to be 15% in accordance with WA DOH <i>Appendix 2 (PA)</i> .
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (% w/w).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, <i>Asbestos: The Analysts Guide</i> , 2nd Edition (2021).
HSG264	UK HSE HSG264, <i>Asbestos: The Survey Guide</i> (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (K) as derived from the effective filter area of the given AFM membrane used for collecting the sample (A) and the projected eyepiece graticule area of the specific microscope used for the analysis (a).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, <i>Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres</i> , 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, <i>Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia</i> (updated 2021), including Appendix Four: <i>Laboratory analysis</i>
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (%_{WA}).

Comments**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
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

Asbestos Counter/Identifier:

Bennel Jiri Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage Senior Analyst-Asbestos



Glenn Jackson
General Manager

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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