Asbestos Remedial Management Plan

Penrith City Council

11a Canopus Close
ERSKINE PARK NSW 2759

Issue Date: 8 July 2021

Report Number: 11538.01.ARCP

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Document Control

Revision Number	Issue Date	Document Number	Author	Author Signature	Reviewer	Reviewer Signature
Revision 0	08/07/2021	11538.01.ARCP	Chris Chen BSc (App Chem)	[redacted]	Justin Thompson-Laing BSc(Hons), CEnvP (SC) SC No. SC40071	[redacted]

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1. PROJECT DETAILS

1.1 Client Details

Company:	Penrith City Council
Address:	PO Box 60, PENRITH NSW 2751
Contact Name:	Laura Gray
Contact Number:	0429 348 771

1.2 Site Details

Address:	11a Canopus Close ERSKINE PARK NSW 2759
Site Contact:	Laura Gray
Contact Number:	0429 348 771

1.3 Asbestos Contractor

Asbestos Removal Start Date: TBA

Asbestos Removal Finish Date: TBA

Asbestos Contractor

Company:	TBA
Address:	TBA
Supervisor's Name:	TBA
Contact Number:	TBA

Asbestos Waste Facility

Facility Name:	TBA
Address:	TBA
Phone Number:	TBA

1.4 Occupational Hygienist

Company:	Getex Pty Ltd (Getex)
Address:	Building B, Unit 2, 64 Talavera Road MACQUARIE PARK NSW 2113
Consultant:	Chris Chen BSc (App Chem)
Contact Number:	(02) 9889 2488

2. BACKGROUND

Getex was engaged by Penrith City Council (the Client) to conduct a Detailed Site Contamination Investigation located at 11a Canopus Close, ERSKINE PARK NSW 2759 where bonded abestos cement sheeting (ACM) was identified within test pit TP04 within the Site. Chrysoltile asbestos was detetcted by laboratory analysis within a sample taken by Getex during the detailed site contamination investigation (Getex Report 11538.02.TSCA dated 3 May 2021).

Following the positive identiification of asbestos by laboratory analysis the Client requested Getex to attend the Site and conduct an investifgation of the area to deteremin the extent and remedial action required to remove the asbestos contamination (Refer to Getex report 11538.01.INSP).

3. SCOPE

Getex Pty Ltd (Getex) was commissioned by Laura Gray of Penrith City Council to prepare an Asbestos Remedial Management Plan for 11a Canopus Close, ERSKINE PARK NSW 2759 to cover:

- The type, condition and extent of the asbestos contamination;
- A risk assessment of the asbestos contamination identified on site;
- Classification of the asbestos contamination identified as either non-friable (bonded) and/or friable asbestos;
- The scope of remedial works required to be completed in order to yield the areas containing the identified asbestos contamination satisfactory with respect to asbestos health and safety; and
- The necessary asbestos health and safety procedures/precautions to be undertaken during the works.

Any questions regarding this document should be directed to Chris Chen on (02) 9889 2488.

4. LIMITATIONS

Getex and its staff members are professionally qualified and trained to achieve a suitable level of competency for the tasks undertaken.

Although all work is performed to a professional and diligent standard, the potential variance between the practical limitations of the scope of work undertaken, the cost of our services, all possible issues of concern, and any loss or damages which may be associated with our work are such that we cannot warrant that all issues of concern have been identified. We therefore limit any potential liability associated with our work to the cost of our services.

This document is limited to outlining general health and safety procedures/precautions that are recommended to be applied during the proposed asbestos remediation works with sole regard to the identified asbestos hazards. This document does not address all health and safety issues that may be required to be addressed during the works as it is not possible to anticipate at the time of preparation of this report all possible issues that could arise during the works. Furthermore, this document does not address non-asbestos related issues of concern such as the health and safety requirements of general demolition/construction works.

This document has been prepared for a specific objective and within a specified scope of work as agreed between the Client and Getex. As such this report is only for the use of the Client for the intended objective and must not be used for any other purpose. It is the responsibility of any party using this report to fully check to their satisfaction if this report is suitable for their intended use.

All information and/or report(s) prepared by Getex should not be reproduced and/or presented/reviewed except in full.

5. DEFINITIONS

The following asbestos classification definitions are taken from the WH&S Regulation 2017; the Safe Work Australia Code of Practice (How to Safely Remove Asbestos) approved under Section 274 of the Work Health and Safety Act 2011; and the National Environment Protection (Assessment of Site Contamination) Measure (NEPM), 2013, Schedule B1.

5.1 Friable Asbestos

WH&S Regulation 2017
Friable asbestos material means material that:

a) is in powder form or that can be crumbled, pulverised, or reduced to a powder by hand pressure when dry, and
b) Contains asbestos.

Safe Work Australia Code of Practice (How to Safely Remove Asbestos) approved under Section 274 of the Work Health and Safety Act 2011
Means material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry, and contains asbestos.

National Environment Protection (Assessment of Site Contamination) Measure (NEPM), 2013, Schedule B1
Includes both Fibrous Asbestos (FA) and Asbestos fines (AF):

- 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).
- AF includes free fibres, small fibre bundles and also 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).

5.2 Bonded Asbestos (Non-Friable Asbestos)

WH&S Regulation 2017
Bonded asbestos material means any material (other than friable asbestos material) that contains asbestos.

Safe Work Australia Code of Practice (How to Safely Remove Asbestos) approved under Section 274 of the Work Health and Safety Act 2011
Means material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound.

NEPM 2013, Schedule B1
Bonded asbestos containing material (ACM) comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where asbestos is bound in a matrix such as cement or resin (e.g. asbestos fencing and vinyl tiles). 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.

Note: Non-friable asbestos may become friable through deterioration (see definition of friable asbestos).

6. ASBESTOS IDENTIFICATION

The Site was attended by Chris Chen of Getex on the 4th of June 2021 to identify the extent of asbestos contamination within the Site.

The following areas were assessed for asbestos contamination.

1. AREA 1 - The area surrounding test pit TP04. Trenches were excavated north, east, south and west of TP04 within the Inspection Area. Test pits were approximately 1.0m long by 0.5m wide and were excavated to a depth of approximately 0.5m.

Refer to Appendix I for the Site Map.
Refer to Appendix II for the Site Photographs.

Based on the above inspection the following area is to be considered contaminated with fragments of ACM:

1. Area surrounding TP04 within the fill material and bounded by the following:
    - To the north by location TP04/DN (1.0m from TP04);
    - To the east by location TP04/DE (1.0m from TP04);
    - To the south by location TP04/DS (1.0m from TP04); and
    - To the west by location TP04/DW (1.0m from TP04).

7. ASBESTOS CLASSIFICATION AND RISK ASSESSMENT

The asbestos classifications noted in the table below are based on:

1. The definitions set out in the WH&S Regulation 2017; and the Safe Work Australia Code of Practice (How to Safely Remove Asbestos) approved under Section 274 of the Work Health and Safety Act 2011;
2. A visual inspection of the areas as per Section 6;
3. Sample analysis results of samples collected from site on the 31st of March 2021; and
4. An assessment of risk with respect to the potential release of airborne asbestos fibres under in situ conditions or during appropriate removal/management works in accordance with WH&S Act (2011).

Description of Material	Specific Location	Sample ID	Friable or Non-Friable	Condition	Risk Rating	Control Measures
Fill material containing asbestos cement debris	Within test pit TP04 at a depth of 0.3m.	11538/ST2/TP04/AS02	**Non-Friable (bonded)**	Fragments in sound condition	Low	Refer to Section 8

/

8. ASBESTOS REMOVAL CONTROL PLAN

The following sections relate to the procedures and precautions required by employees involved in the removal of bonded ACM, located at 11a Canopus Close, ERSKINE PARK NSW 2759. This document does not cover all procedures and precautions required for removal and clean-up activities i.e. the safe operation of machinery and other general decontamination work requirements etc.

All work must be performed in accordance with the NSW Work, Health and Safety Regulation 2017; and the Safe Work Australia Code of Practice (How to Safely Remove Asbestos) approved under Section 274 of the Work Health and Safety Act 2011.

8.1 General Site Set Up

Prior to the commencement of asbestos removal activities, the following procedures are to be observed:

- All non-friable asbestos remediation work is to be undertaken by a Class A or Class B asbestos licensed contractor.

- An exclusion zone from the asbestos removal area is to be established, barricaded and access restricted using the following controls:

    - Asbestos warning tape and/or barriers are to be at the access points to asbestos removal area;
    - Asbestos removal warning signs are to be placed so that they inform people nearby of asbestos removal works taking place and at all entrance points to the asbestos removal work area. Signs should be in accordance with *AS 1319-1994 Safety signs for the occupational environment*; and
    - Access is to be restricted to fully trained and inducted personnel involved in the asbestos removal work. All persons entering the exclusion zone are to wear appropriate PPE. All persons and equipment are to be suitably decontaminated and asbestos waste suitably bagged prior to leaving the exclusion zone.

- An appropriate Safe Work Method Statement and Risk Assessment are to be prepared by all parties involved and followed in accordance with site safety procedures. All personnel must read and sign each relevant document.

8.2 General Requirements for Decontamination Works

During asbestos remediation the following procedures are to be observed:

- All workers to wear appropriate Personal Protective Equipment (PPE), including but not limited to:
    - Respiratory protection (a minimum of P2 for non-friable asbestos removal);
    - Disposable overalls (rated Type 5 for particulates); and
    - Disposable gloves.
- Ensure all safety procedures are in place prior to starting work.
    - The established area for decontamination; and
    - The established area for wash down (decontamination) of equipment.
- All used PPE is to be placed in 200µm thick plastic bags and disposed of as asbestos contaminated waste. All bags must be labelled with appropriate signage stating they contain asbestos and that dust creation and inhalation should be avoided.
- All asbestos contaminated waste is to be disposed of at the nominated EPA licensed facility that accepts asbestos containing waste (Refer to Section 1.3).

8.3 Removal of Asbestos Contaminated Material

- Excavate fill material and load into trucks with appropriate coverings.
- All fill material removed from the excavation is to be treated as asbestos waste.
- Excavate until there is no more signs of asbestos contamination.
- All trucks used to load the asbestos contaminated material into are to park as close as practicable to the material being removed and within the asbestos exclusion zone.
- When a truck is ready to leave site the wheels and sub-frame (i.e. tow bar of any trailers) are to be washed with a fine water spray to ensure no spilled material leaves the asbestos exclusion zone. The truck should also ensure that its load is fully covered before moving off.
- All asbestos waste must be disposed of appropriately at a waste facility that is licensed to accept asbestos waste.

8.4 Decontamination

- Use the established area for personal decontamination.
- Use the established area for wash down (decontamination) of equipment. The wash down area is to be at the edge of and within the asbestos exclusion zone and must be able to capture all run-off so it can be disposed of as asbestos waste.

8.5 Airborne Asbestos Monitoring & Validation / Clearance Inspection

- NATA accredited airborne asbestos monitoring is recommended to be undertaken during all non-friable asbestos removal works by an Occupational Hygienist.

- If the results of the airborne asbestos monitoring during the asbestos removal works indicate that airborne asbestos levels are equal to or exceed 0.02 fibres/mL, the Asbestos Removal Contractor shall cease work immediately, the work practice shall be reviewed with appropriate measures taken to rectify the problems.

- Following all asbestos removal activities, an Occupational Hygienist is to conduct a Clearance Inspection.

  The Clearance Inspection will involve the following:

  - Visual inspection of the excavated area to ensure all material required to be removed has been removed and that no visible signs of ACM remains; and

  - 10L ACM validation samples are to be collected from the base of the excavation approximately every 25m^2 (5m x 5m grid) as per Section 11.3.2 of NEPM (2013) Schedule B2.

  - 10L ACM validation samples are to be collected from the walls of the excavation every 5m as per Section 11.3.2 of NEPM (2013) Schedule B2.

  Subsequent to satisfactory visual inspection results and validation sampling results an Asbestos Clearance Certificate will be issued for the areas.

9. EMERGENCY RESPONSE PLAN

In the event of an emergency during asbestos removal works at the Site the following procedures are to be implemented.

9.1 Uncontrolled Release of Asbestos

Uncontrolled release of asbestos may occur due to, but is not limited to the following:

- The removal of asbestos containing materials without adequate dust suppression controls;
- Incorrect closure or breakage of asbestos waste plastic bags or plastic sheet wraps;
- Inadequate or incorrect decontamination of PPE and equipment which then leaves the asbestos exclusion zone;
- The movement of asbestos containing materials outside of the asbestos exclusion which have not been adequately sealed in 200µm plastic bags or sheets.

If uncontrolled release of asbestos occurs or is suspected of occurring the following process are to be implemented:

- Stop all works immediately.

- The asbestos removal contractors Licensed Asbestos Supervisor (Refer to Section1.3) is to erect barricades and warning signs around the suspected area of asbestos contamination.

- The Licensed Asbestos Supervisor is to inform the Occupational Hygienist and the Site Owner of the uncontrolled release of asbestos.

- The Occupational Hygienist is to attend the Site and conduct an assessment. The assessment should include details on the following:

    - Confirmation that uncontrolled release of asbestos has occurred;
    - The extent of the uncontrolled release of asbestos, whether it is Friable or Non-friable and a risk assessment of the asbestos contamination;
    - The procedures required to clean up the asbestos contamination and achieve an asbestos clearance certificate.

- If deemed necessary by the Occupational Hygienist, conduct airborne asbestos monitoring of the Site following the uncontrolled asbestos release.

- Following the issuing of an asbestos clearance certificate after the clean-up of uncontrolled asbestos, and prior to continuing works, the Licensed Asbestos Supervisor, in conjunction with the Occupational Hygienist is to review all procedures relating to asbestos removal works at the Site to reduce the risk of further uncontrolled release of asbestos.

9.2 Site Evacuation

If a situation arises which requires the evacuation of the Site during asbestos removal works the following procedures are to be implemented:

- Upon the discovery of the emergency requiring Site evacuation immediately stop work and advice others to do the same.

- Only **if safe** to do so:

    - Cover any exposed asbestos material with 200µm thick plastic sheeting and secure any open asbestos waste bags.
    - Decontaminate PPE following normal procedures and leave the asbestos exclusion zone in a normal manner.
    - The Licensed Asbestos Supervisor is to secure the asbestos exclusion zone and restrict all access.

- If it is **not safe** to decontaminate:

    - Leave the asbestos exclusion zone by the nearest exit.
    - Once outside the immediate emergency area and in safe location, carefully remove PPE with care taken to minimise any asbestos fibre release. Ensure all PPE is removed before proceeding to the Muster Point.

- Once PPE has been removed and the asbestos exclusion has been zone has been evacuated the Licensed Asbestos Supervisor is to inform the Occupational Hygienist and the Site Owner of the emergency.

- Follow all instructions given in the Site specific SWMS, call 000 (if required) and gather at the nominated Muster Point. Do not return for valuables or tools.

- If it was not possible to safely secure all asbestos materials, decontaminate and secure the asbestos exclusion zone in the normal manner, then barricades and asbestos warning signs are to be erected around all potential asbestos contaminated areas as per procedures within Section 8.1.

9.3 Site Re-Occupation

- Once the all clear is given and if the asbestos exclusion zone was safely secured and the emergency situation did not cause damage to the asbestos removal area the Site may be re occupied and asbestos removal works may continue in the normal manner as specified in this ARCP.

- Once the all clear is given, if the asbestos exclusion zone was abandoned without it being satisfactorily secured, or if the emergency situation has caused damage to the asbestos removal area then:

    - An Occupational Hygienist is to be consulted to assess the extent and clean-up required of any asbestos contamination.

    - The Site is only to be entered by personnel wearing clean PPE as advised by the Occupational Hygienist until a clearance certificate has been issued.

APPENDIX I

Site Map

Site Map
11a Canopus Close, ERSKINE PARK NSW 2759
Aerial image derived from Google Earth

APPENDIX II

Site Photographs

Photograph 1
View of the Asbestos Cement Sheeting identified within test pit TP04.

Photograph 2
View of the delineated area surrounding test pit TP04.

APPENDIX III

Laboratory Analysis Reports

AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET92243 / 95423 / 1 - 29
Your ref : 11538
NATA Accreditation No: 14484

6 April 2021

Getex Pty Ltd
Unit 2 Building B 64 Talavera Road
Macquarie Park NSW 2113

Attn: Mr Chris Chen

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Chris

Asbestos Identification
This report presents the results of twenty nine samples, forwarded by Getex Pty Ltd on 31 March 2021, for analysis for asbestos.

1.Introduction: Twenty nine samples forwarded were examined and analysed for the presence of asbestos on 01 April 2021.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines).

3. Results : **Sample No. 1. ASET92243 / 95423 / 1. 11538/ST1/TP02/AS01.**
Approx dimensions 10.0 cm x 10.0 cm x 5.1 cm
Approximate total dry weight of soil = 508.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

λ Sample No. 2. ASET92243 / 95423 / 2. 11538/ST2/TP04/AS02.
Approx dimensions 5.0 cm x 4.0 cm x 0.6 cm
The sample consisted of a fragment of a fibre cement material.
Chrysotile asbestos and Amosite asbestos detected.
Approximate total weight of fibre cement = 17.0g.

Ω Sample No. 3. ASET92243 / 95423 / 3. 11538/ST1/TP03/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.6 cm
Approximate total dry weight of soil = 459.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 4. ASET92243 / 95423 / 4. 11538/ST1/TP04/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.1 cm
Approximate total dry weight of soil = 414.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 5. ASET92243 / 95423 / 5. 11538/ST1/TP05/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.7 cm
Approximate total dry weight of soil = 465.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of plastic, wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 6. ASET92243 / 95423 / 6. 11538/ST1/TP06/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.5 cm
Approximate total dry weight of soil = 446.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of corroded metal, plastic, wood chips, char and plant matter.
No asbestos detected.

Sample No. 7. ASET92243 / 95423 / 7. 11538/ST2/TP02/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm
Approximate total dry weight of soil = 497.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of mica like material, wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 8. ASET92243 / 95423 / 8. 11538/ST2/TP03/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.1 cm
Approximate total dry weight of soil = 414.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Ω Sample No. 9. ASET92243 / 95423 / 9. 11538/ST2/TP04/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.4 cm
Approximate total dry weight of soil = 440.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Sample No. 10. ASET92243 / 95423 / 10. 11538/ST2/TP05/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm
Approximate total dry weight of soil = 501.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 11. ASET92243 / 95423 / 11. 11538/ST2/TP06/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.5 cm
Approximate total dry weight of soil = 448.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips and plant matter.
No asbestos detected.

Sample No. 12. ASET92243 / 95423 / 12. 11538/ST4/TP02/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.4 cm
Approximate total dry weight of soil = 536.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, slag and plant matter.
No asbestos detected.

Sample No. 13. ASET92243 / 95423 / 13. 11538/ST4/TP03/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.6 cm
Approximate total dry weight of soil = 562.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, slag, wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 14. ASET92243 / 95423 / 14. 11538/ST4/TP04/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.7 cm
Approximate total dry weight of soil = 463.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of char and plant matter.
No asbestos detected.

Ω Sample No. 15. ASET92243 / 95423 / 15. 11538/ST4/TP05/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.8 cm
Approximate total dry weight of soil = 480.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 16. ASET92243 / 95423 / 16. 11538/ST4/TP06/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.1 cm
Approximate total dry weight of soil = 513.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 17. ASET92243 / 95423 / 17. 11538/ST5/TP02/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 3.3 cm
Approximate total dry weight of soil = 334.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips and plant matter.
No asbestos detected.

Sample No. 18. ASET92243 / 95423 / 18. 11538/ST5/TP03/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.1 cm
Approximate total dry weight of soil = 510.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 19. ASET92243 / 95423 / 19. 11538/ST5/TP04/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.9 cm
Approximate total dry weight of soil = 492.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, wood chips and plant matter.
No asbestos detected.

Sample No. 20. ASET92243 / 95423 / 20. 11538/ST5/TP05/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.9 cm
Approximate total dry weight of soil = 488.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of cement, wood chips and plant matter.
No asbestos detected.

Sample No. 21. ASET92243 / 95423 / 21. 11538/ST5/TP06/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.9 cm
Approximate total dry weight of soil = 494.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 22. ASET92243 / 95423 / 22. 11538/ST6/TP02/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 5.1 cm
Approximate total dry weight of soil = 508.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips and plant matter.
No asbestos detected.

λ Sample No. 23. ASET92243 / 95423 / 23. 11538/ST6/TP02/AS02.
Approx dimensions 3.3 cm x 3.1 cm x 0.5 cm
The sample consisted of a fragment of a fibre cement material.
Chrysotile asbestos and Amosite asbestos detected.
Approximate total weight of fibre cement = 10.0g.

Ω Sample No. 24. ASET92243 / 95423 / 24. 11538/ST6/TP03/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.8 cm
Approximate total dry weight of soil = 478.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

λ Sample No. 25. ASET92243 / 95423 / 25. 11538/ST6/TP03/AS02.
Approx dimensions 6.0 cm x 3.0 cm x 0.6 cm
The sample consisted of fragments of a fibre cement material.
Chrysotile asbestos and Amosite asbestos detected.
Approximate total weight of fibre cement = 18.0g.

Sample No. 26. ASET92243 / 95423 / 26. 11538/ST6/TP04/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.9 cm
Approximate total dry weight of soil = 489.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of char and plant matter.
No asbestos detected.

Ω Sample No. 27. ASET92243 / 95423 / 27. 11538/ST6/TP05/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.7 cm
Approximate total dry weight of soil = 473.0g.
The sample consisted of a mixture of clayish sandy soil, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 28. ASET92243 / 95423 / 28. 11538/ST6/TP06/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.5 cm
Approximate total dry weight of soil = 448.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Ω Sample No. 29. ASET92243 / 95423 / 29. 11538/ST6/TP08/AS01.
Approx dimensions 10.0 cm x 10.0 cm x 4.4 cm
Approximate total dry weight of soil = 443.0g.
The sample consisted of a mixture of clayish sandy soil, organic fibres, stones, fragments of wood chips, char and plant matter.
No asbestos detected.

Reported by,

[redacted]

Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.
*** denotes asbestos detected in ACM in bonded form.**

 # denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.
λ denotes samples that have been analysed only in accordance to AS 4964 – 2004.
Ω Sample volume criteria of 500mL have not been satisfied.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;
Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001% for friable AF and FA portions detected and 0.01 % for ACM detected unless the approximate weight is given.