

2 October 2024

Our ref: 754-NTLEN347071-1

Cessnock Hospital - Pre-Demolition Hazardous Materials Survey Report Summary

1. INTRODUCTION

The following Pre-Demolition Hazardous Materials Reports have been prepared by Tetra Tech Coffey on behalf of Health Infrastructure to assess the potential environmental impacts that could arise from the redevelopment of the Cessnock Hospital health service at 24 View Street, Cessnock.

- 754-NTLEN347071-1 Kitchen – HMDR – 04072024
- 754-NTLEN347071-1 Maintenance Workshop – HMDR – 05072024
- 754-NTLEN347071-1 Pink Lady Volunteer and Dangerous Goods – HMDR – 0472024
- 754-NTLEN347071-1 Cessnock House and Pathology – HMDR – 01072024
- 754-NTLEN347071-1 Main Building Cessnock Hospital – HMDR – 10072024
- 754-NTLEN347071-1 Store Room and Mortuary -HMDR – 04072024
- 754-NTLEN347071-1 Workshops, Metal Shed and Old Mortuary – HMDR - 01072024

These reports accompany a Review of Environment Factors that seeks approval for the construction and operation of a new two-storey clinical services building and refurbishment works including:

- Demolition of select existing structures
- Construction of a new hospital building on the site's northern portion
- Realignment of internal roads and a new primary vehicular and pedestrian entrance to the hospital campus from Jurd Street
- Refurbishment of the existing at-grade car park
- Installation and realignment of selected services
- Installation of ancillary development including, but not limited to, lighting and signage.
- Landscaping
- New kerb, gutter and road resurfacing on Jurd St

For a detailed project description, refer to the Review of Environmental Factors prepared by Ethos Urban.

1.1 SUMMARY OF FINDINGS

Building	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Kitchen	✓	-	-	-	✓	-	-
Maintenance Workshop	✓	✓	✓	✓	✓	✓	-
Pink Lady Volunteer Services and Dangerous Goods Buildings	✓	✓	✓	-	-	-	-
Cessnock House and Pathology	✓	✓	✓	✓	✓	✓	✓
Main Building	✓	✓	✓	✓	✓	✓	✓
Storeroom & Mortuary	✓	✓	✓	-	✓	-	-
Workshops, Metal Shed and Old Mortuary	✓	✓	✓	✓	✓	✓	✓

1.2 STATEMENT OF SIGNIFICANCE

Based on the identification of potential issues and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts from our findings are high and if not properly mitigated, would have significant adverse effects on the locality, community and the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community.

1.3 MITIGATION MEASURES

Project Stage	Mitigation Measures	Relevant Section of Report
Removal Works	Ensure appropriately licenced and experienced removal contractors and consultants/assessors are used during the works	Recommendations and Register
Removal Works	Ensure control air monitoring is conducted during the removal works	Recommendations and Register
Removal Works	Ensure clearance inspections are conducted by a licenced assessor following the completion of the removal works to confirm that the works have been conducted to a satisfactory standard. Ensure clearance air monitoring is also conducted following the removal of any friable asbestos materials	Recommendations and Register
Removal Works	Ensure all works are completed in accordance with the WHS Regs and relevant codes of practice	Recommendations and Register

Should you have any questions or require any further information, please feel free to contact the undersigned.

Kind regards,



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NSW Health Infrastructure c/o Turner & Townsend

Asbestos and Hazardous Materials Pre-Demolition Assessment

Kitchen

Cessnock Hospital

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Quality Information

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Revision	Description	Date	Originator	Reviewer	Approver
R01	Final	23/08/2024	Sam Crofts	Ben McCann	Aaron Holmes

Distribution

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Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Kitchen building located at Cessnock Hospital, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Cessnock Hospital, Kitchen	✓	-	-	-	✓	-	-

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Kitchen building located at Cessnock Hospital, Cessnock NSW 2325 (the site). Sam Crofts of Tetra Tech conducted the assessment on the 04/07/2024.

Note: The building was occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the building has been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of the Kitchen located at Cessnock Hospital, Cessnock NSW 2325 (the site).

Table 1: Site Information

Site:	Kitchen, Cessnock Hospital, Cessnock NSW 2325
Age (Circa):	1960's
Site Description:	Commercial kitchen and dining building within hospital

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
Internal / GF / Kitchen Floor Covering, Various Throughout	Vinyl Floor Tiles (brown)	Low
Internal / GF / Cafeteria Floor Covering, Various Throughout	Vinyl Floor Tiles (brown)	Low
Internal / GF / Kitchen and Cafeteria, Throughout	Vinyl Floor Tiles (white with brown specs)	Low
Internal / GF / Kitchen / Room 1010 Cleaners Cupboard, Throughout	Vinyl Floor Tiles (white)	Low
Internal / GF / Kitchen / Room 1012, Throughout	Vinyl Floor Tiles (white with brown specs)	Low
External / GF / Awning, Southeast Verandah	Fibre Cement Sheeting	Low
External / GF / All Areas / Eaves, Throughout	Fibre Cement Sheeting	Low
External / GF / Infill Panels, Adjacent Air Conditioning Refrigerator Pump	Fibre Cement Sheet	Low
External / GF / All Areas / Infill Panels, Below Windows	Fibre Cement Sheet	Low
External / GF / All Areas / Metal Windows, Throughout	Window Caulking	Low
External / GF / All Areas / Metal Windows, Throughout	Window Caulking	Low
Internal / GF / Kitchen / Rooms 1008 & 1007, Throughout	Vinyl Floor Tiles (white with brown specs)	Low
Internal / GF / Kitchen / Rooms 1008 & 1007, Various Throughout	Vinyl Floor Tiles (brown)	Low
Internal / Basement / Switchboard Room, 0003 / Electrical Distribution Board, Southwest	Internal Components	Low
Internal / Basement / Switchboard Room, 0003 / Electrical Distribution Board, Southwest	Compressed Bituminous Panel	Low
Internal / Basement / Switchboard Room, 0003 / Plant & Equipment	Gasket Material	Low

2.1.2. Lead Based Paint

No suspect lead based paint identified at the time of the assessment.

2.1.3. Lead Containing Dust

No suspect lead containing dust identified at the time of the assessment.

2.1.4. Synthetic Mineral Fibres

Location	Material Description	Risk Rating
External / GF / Hot Water Heater, Adjacent Roof Access	Insulation Material	Very Low
Internal / GF / Kitchen / Hot Water Heater, Adjacent Dishwasher	Insulation Material	Very Low
Internal / Basement / Switchboard Room, 0003 / Pipework, Throughout	Insulation Material	Very Low

2.1.5. Polychlorinated Biphenyls

No suspect PCB containing capacitors identified at the time of the assessment.

2.1.6. Ozone Depleting Substances

No suspect ODS's identified at the time of the assessment.

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout.
- Areas outside the scope of assessment.
- External GF Subfloor - Visually inspected from access hatch only. No access to majority of subfloor. No access beneath fabric to soil.
- Ceiling space – no access in occupied area.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Ceiling voids;
- Wall voids;
- Below floors;

- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;
- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.
- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.
- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the

management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.

- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.
- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.
- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Synthetic Mineral Fibres

- SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].

3.3. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

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Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Awning, Southeast Verandah	Fibre Cement Sheeting	Asbestos	Previously Sampled KT01.1	Chrysotile Asbestos Detected	Non-Friable	90 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	1
External	GF / All Areas / Eaves, Throughout	Fibre Cement Sheeting	Asbestos	Previously Sampled KT01	Chrysotile Asbestos Detected	Non-Friable	30 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	2
External	GF / Infill Panels, Adjacent Air Conditioning Refrigerator Pump	Fibre Cement Sheet	Asbestos	Previously Sampled KT04.1	Chrysotile Asbestos Detected	Non-Friable	6 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	3
External	GF / All Areas / Infill Panels, Below Windows	Fibre Cement Sheet	Asbestos	Previously Sampled KT04	Chrysotile Asbestos Detected	Non-Friable	9 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	4

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / All Areas / Metal Windows, Throughout	Window Caulking	Asbestos	A27966	Chrysotile Asbestos Detected	Non-Friable	40 m	Stable	Low	Prior to refurbishment or demolition	Remove windows whole without direct disturbance to caulking under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor. If scraping out of caulking is undertaken as the removal method (i.e. material is being crumbled, pulverized, rendered to a powder), this should be done under friable asbestos removal conditions by a Class A (friable) licensed asbestos removal contractor.	5
External	GF / All Areas / Metal Windows, Throughout	Window Caulking	Asbestos	A27965	Chrysotile Asbestos Detected	Non-Friable	40 m	Stable	Low	Prior to refurbishment or demolition	Remove windows whole without direct disturbance to caulking under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor. If scraping out of caulking is undertaken as the removal method (i.e. material is being crumbled, pulverized, rendered to a powder), this should be done under friable asbestos removal conditions by a Class A (friable) licensed asbestos removal contractor.	6
Internal	GF / Cafeteria Ceiling Lining, Throughout	Vermiculite	Asbestos	A10596	No Asbestos Detected	-	60 m ²	-	-	-	-	7
Internal	GF / Kitchen Ceiling Lining, Throughout	Vermiculite	Asbestos	A10597	No Asbestos Detected	-	60 m ²	-	-	-	-	8

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Kitchen / Floor Covering, Various Throughout	Vinyl Floor Tiles (brown)	Asbestos	A10598.1	Chrysotile Asbestos Detected	Non-Friable	2 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	9
Internal	GF / Cafeteria / Floor Covering, Various Throughout	Vinyl Floor Tiles (brown)	Asbestos	A10598	Chrysotile Asbestos Detected	Non-Friable	8 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	10
Internal	GF / Kitchen and Cafeteria, Floor Covering, Throughout	Vinyl Floor Tiles (white with brown specs)	Asbestos	Previously Sampled KT03	Chrysotile Asbestos Detected	Non-Friable	60 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	11
Internal	GF / Kitchen / Room 1010 Cleaners Cupboard, Throughout	Vinyl Floor Tiles (white)	Asbestos	A10599	Chrysotile Asbestos Detected	Non-Friable	6 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	12

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Kitchen / Room 1012, Throughout	Vinyl Floor Tiles (white with brown specs)	Asbestos	Previously Sampled KT03.1	Chrysotile Asbestos Detected	Non-Friable	10 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	13
Internal	GF / Kitchen / Rooms 1008 & 1007, Throughout	Vinyl Floor Tiles (white with brown specs)	Asbestos	Previously Sampled KT03.2	Chrysotile Asbestos Detected	Non-Friable	15 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	14
Internal	GF / Kitchen / Rooms 1008 & 1007, Various Throughout	Vinyl Floor Tiles (brown)	Asbestos	A10598.2	Chrysotile Asbestos Detected	Non-Friable	3 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	15
Internal	Basement / Switchboard Room, 0003 / Electrical Distribution Board, Southwest	Internal Components	Asbestos	754-NTLEN347071-1kitchen 493A2	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Confirm status and remove under controlled friable asbestos removal conditions by a Class A (friable) licensed asbestos removal contractor. Prior to any intrusion or removal, sampling is to be conducted by a suitably trained hygienist/LAA (if state requirement) and test at a NATA accredited facility for verification of internal core system.	16

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Basement / Switchboard Room, 0003 / Electrical Distribution Board, Southwest	Compressed Bituminous Panel	Asbestos	754-NTLEN347071-1kitchen 493A1	Suspected Asbestos	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Not sampled - Live electrical hazard. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	17
Internal	Basement / Switchboard Room, 0003 / Plant & Equipment	Gasket Material	Asbestos	A10594	Chrysotile Asbestos Detected	Non-Friable	6 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	18
Internal	Basement / Switchboard Room, 0003 / Plant & Equipment Pipework, Central	Bituminous Wrap	Asbestos	A10593	No Asbestos Detected	Friable	4 m	-	-	-	-	19
Internal	GF / Kitchen / Door Frames, Throughout	Green (Light) Paint	Lead Paint	L18418	Lead Detected (0.099% w/w)	-	20 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	20
Internal	GF / Kitchen / Wall lining, Throughout	Blue (Light) Paint	Lead Paint	L18419	Lead Detected (0.02% w/w)	-	180 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	21

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Basement / Switchboard Room, 0003 / Doors, Throughout	Brown (Light) Paint	Lead Paint	L18417	Lead Detected (0.03% w/w)	-	8 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	22
External	GF / All Areas / Hot Water Heater, Adjacent Roof Access	Insulation Material	SMF	754-NTLEN347071-1kitchen 493S2	Suspected SMF	-	2 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	23
Internal	GF / Kitchen / Hot Water Heater, Adjacent Dishwasher	Insulation Material	SMF	754-NTLEN347071-1kitchen 493S3	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	24
Internal	Basement / Switchboard Room, 0003 / Pipework, Throughout	Insulation Material	SMF	754-NTLEN347071-1kitchen 493S1	Suspected SMF	-	3 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	25
External	GF / All Areas / Various Throughout, AC Units	R-410a Refrigerant	ODS	Visual Observation	-	-	8 units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	26
External	GF / Subfloor	-	No Access	-	-	-	-	-	-	-	Visually inspected from access hatch only. No access to all areas of subfloor. No access beneath fabric to soil. No or limited access potential hazardous materials present within inaccessible areas	27

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Ceiling Space	-	No Access	-	-	-	-	-	-	-	Visually inspected from kitchen access hatch only. No access to all areas of ceiling space. No or limited access potential hazardous materials present within inaccessible areas	28

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital Kitchen 16072024
Client: NSW Health Infrastructure
Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma
E-mail: Les.Palma@turntown.com
Date Sampled: 04-07-2024
Date Analysed: 16-07-2024
Date Authorised: 17-07-2024
Sampled By: Ben McCann
Site: Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation No:2220
Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Asbestos in Bulk Samples and Non-homogenous Material

Test Method: Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 8

Approved Identifier
Panika Wongchanda

Approved Signatory
Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A10593	Internal, BASEMENT, Switchboard Room, 0003, Plant & equipment pipework, Central, Bituminous Wrap - Black sticky bituminous material	23 x 14 x 4 mm	No asbestos fibres detected Organic fibres detected
A10594	Internal, BASEMENT, Switchboard Room, 0003, Plant & equipment, Gasket Material - Beige fibrous gasket material	5 x 5 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10596	Internal, GF, Kitchen, Cafeteria ceiling lining, Throughout, Vermiculite - Beige powdery mica vermiculite material	75 x 52 x 11 mm	No asbestos fibres detected Organic fibres detected
A10597	Internal, GF, Kitchen, Cafeteria ceiling lining, Throughout, Vermiculite - Beige powdery mica vermiculite material	62 x 34 x 8 mm	No asbestos fibres detected Organic fibres detected
A10598	Internal, GF, Kitchen, Cafeteria floor covering, Various throughout, Vinyl Floor Tiles (brown) A. Brown vinyl tile B. Amber adhesive	52 x 27 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10599	Internal, GF, Kitchen, Room 1010 cleaners cupboard, Throughout, Vinyl Floor Tiles (white) A. Beige vinyl tile B. Amber adhesive	58 x 49 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A27965	External, GF, All Areas, Metal windows, Throughout, Window Caulking - Grey hardened mastic material	26 x 17 x 3 mm	Chrysotile (white asbestos) detected
A27966	External, GF, All Areas, Metal windows, Throughout, Window Caulking - Beige crumbly mastic material & debris	28 x 13 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected

CERTIFICATE OF ANALYSIS 356699

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN347071-1, Cessnock Hospital Survey</u>
Number of Samples	3 Paint
Date samples received	16/07/2024
Date completed instructions received	16/07/2024

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 solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/07/2024
Date of Issue	19/07/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager

Authorised By

Nancy Zhang, Laboratory Manager

Lead in Paint				
Our Reference		356699-1	356699-2	356699-3
Your Reference	UNITS	L18417	L18418	L18419
Date Sampled		04/07/2024	04/07/2024	04/07/2024
Type of sample		Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024
Lead in paint	%w/w	0.03	0.099	0.02

Method ID	Methodology Summary
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			17/07/2024	[NT]	[NT]	[NT]	[NT]	17/07/2024	[NT]
Date analysed	-			18/07/2024	[NT]	[NT]	[NT]	[NT]	18/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	[NT]	[NT]	[NT]	[NT]	102	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

**AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD**

ABN 36 088 095 112

Our ref: ASET63880 / 67060 / 1 - 6
Your ref: 17.1634 - Records and Mortuary and Kitchen
NATA Accreditation No: 14484

18 April 2018

Practical Environmental Solutions
PO Box 167
Mayfield NSW 2304

Attn: Mr Tony Milligan



Accredited for compliance with ISO/IEC 17025

Dear Tony

Asbestos Identification

This report presents the results of six samples, forwarded by Practical Environmental Solutions on 18 April 2018, for analysis for asbestos.

1.Introduction: Six samples forwarded were examined and analysed for the presence of asbestos.

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).

3. Results: **Sample No. 1. ASET63880 / 67060 / 1. KT01 - FFCS Eaves soffit to western aspect.**
Approx dimensions 0.75 cm x 0.45 cm x 0.15 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
Chrysotile asbestos detected.

Sample No. 2. ASET63880 / 67060 / 2. KT02 - Vermiculite spray to cafeteria ceiling.
Approx dimensions 3.5 cm x 2.0 cm x 0.3 cm
The sample consisted of fragments of a soft plaster material containing vermiculite like material.
No asbestos detected.

Sample No. 3. ASET63880 / 67060 / 3. KT03 - Cream VFTs to Cafeteria floor.
Approx dimensions 7.0 cm x 4.5 cm x 0.2 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 4. ASET63880 / 67060 / 4. KT04 - SE Verandah infill panels (Cladding).
Approx dimensions 0.35 cm x 0.25 cm x 0.1 cm
The sample consisted of a fragment of a fibre cement material.
Chrysotile asbestos detected.

Sample No. 5. ASET63880 / 67060 / 5. KT05 - Brown VFTs to Cafeteria.
Approx dimensions 6.1 cm x 4.2 cm x 0.2 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.



Sample No. 6. ASET63880 / 67060 / 6. KT06 - Broadsheet vinyl floor covering.
Approx dimensions 8.0 cm x 5.0 cm x 0.2 cm
The sample consisted of a fragment of a vinyl floor tile.
No asbestos detected (An independent confirmatory analytical technique is advised due to the nature of the sample).

Analysed and reported by,



Chamath Annaldage, BSc
Analyst / Approved Identifier



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



Accredited for compliance with ISO/IEC 17025.

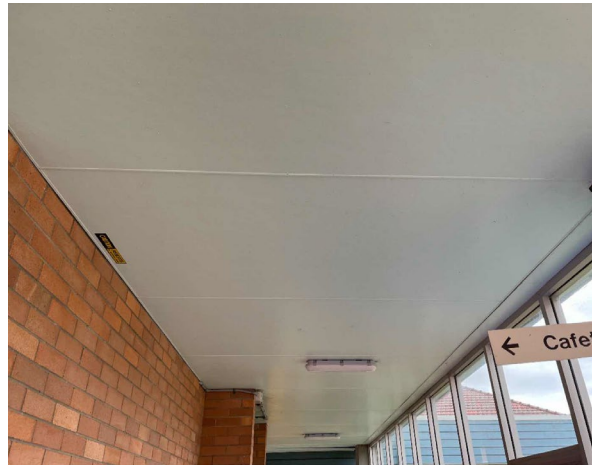
The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified 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 AS4964-2004. Trace / respirable level asbestos will be reported only when detected.

Appendix C: Photographs

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Line ID 1: External, GF, All Areas, Awning, Southeast Verandah, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 1.1: External, GF, All Areas, Awning, Southeast Verandah, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 2: External, GF, All Areas, Eaves, Throughout, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 3: External, GF, All Areas, Infill Panels, Adjacent Air Conditioning Refrigerator Pump, Fibre Cement Sheet - Chrysotile Asbestos Detected



Line ID 4: External, GF, All Areas, Infill Panels, Below Windows, Fibre Cement Sheet - Chrysotile Asbestos Detected



Line ID 4.1: External, GF, All Areas, Infill Panels, Below Windows, Fibre Cement Sheet - Chrysotile Asbestos Detected



Line ID 5: External, GF, All Areas, Metal Windows, Throughout, Window Caulking - Chrysotile Asbestos Detected



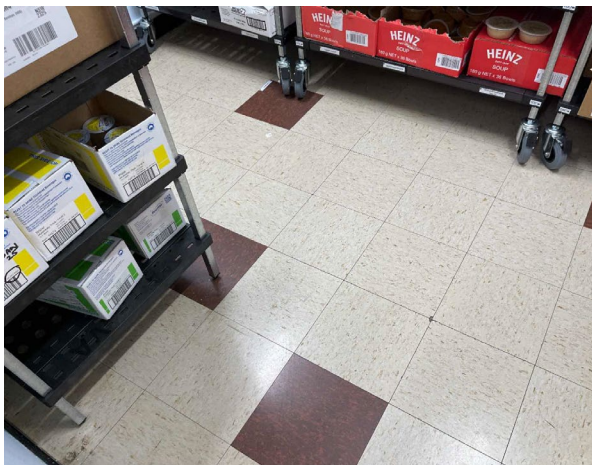
Line ID 6: External, GF, All Areas, Metal Windows, Throughout, Window Caulking - Chrysotile Asbestos Detected



Line ID 7: Internal, GF, Cafeteria Ceiling Lining, Throughout, Vermiculite - No Asbestos Detected



Line ID 8: Internal, GF, Kitchen Ceiling Lining, Throughout, Vermiculite - No Asbestos Detected



Line ID 9: Internal, GF, Kitchen, Cafeteria Floor Covering, Various Throughout, Vinyl Floor Tiles (brown) - Chrysotile Asbestos Detected



Line ID 10: Internal, GF, Kitchen, Cafeteria Floor Covering, Various Throughout, Vinyl Floor Tiles (brown) - Chrysotile Asbestos Detected



Line ID 10.1: Internal, GF, Kitchen, Cafeteria Floor Covering, Various Throughout, Vinyl Floor Tiles (brown) - Chrysotile Asbestos Detected



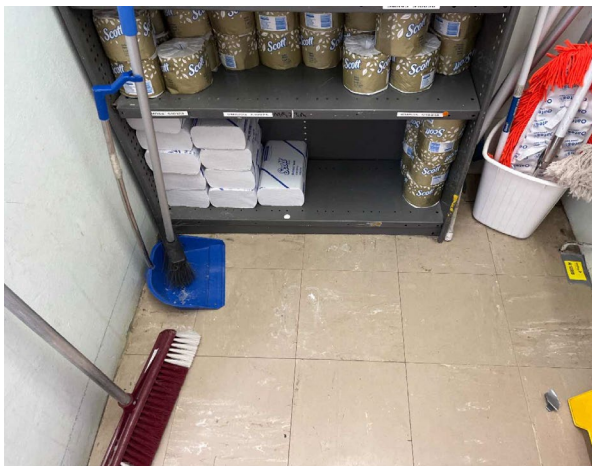
Line ID 11: Internal, GF, Kitchen, Cafeteria, Throughout, Vinyl Floor Tiles (white with brown specs) - Chrysotile Asbestos Detected



Line ID 11.1: Internal, GF, Kitchen, Cafeteria, Throughout, Vinyl Floor Tiles (white with brown specs) - Chrysotile Asbestos Detected



Line ID 12: Internal, GF, Kitchen, Room 1010 Cleaners Cupboard, Throughout, Vinyl Floor Tiles (white) - Chrysotile Asbestos Detected



Line ID 12.1: Internal, GF, Kitchen, Room 1010 Cleaners Cupboard, Throughout, Vinyl Floor Tiles (white) - Chrysotile Asbestos Detected



Line ID 13: Internal, GF, Kitchen, Room 1012, Throughout, Vinyl Floor Tiles (white with brown specs) - Chrysotile Asbestos Detected



Line ID 14: Internal, GF, Kitchen, Rooms 1008 & 1007, Throughout, Vinyl Floor Tiles (white with brown specs) - Chrysotile Asbestos Detected



Line ID 15: Internal, GF, Kitchen, Rooms 1008 & 1007, Various Throughout, Vinyl Floor Tiles (brown) - Chrysotile Asbestos Detected



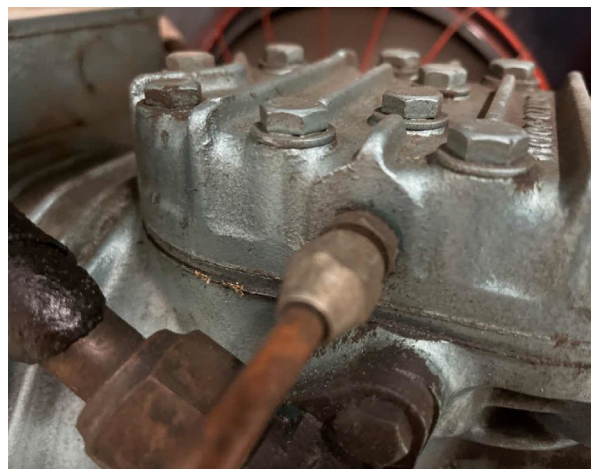
Line ID 16: Internal, Basement, Switchboard Room, 0003, Electrical Distribution Board, Southwest, Internal Components - Suspected Asbestos



Line ID 17: Internal, Basement, Switchboard Room, 0003, Electrical Distribution Board, Southwest, Compressed Bituminous Panel - Suspected Asbestos



Line ID 17.1: Internal, Basement, Switchboard Room, 0003, Electrical Distribution Board, Southwest, Compressed Bituminous Panel - Suspected Asbestos



Line ID 18: Internal, Basement, Switchboard Room, 0003, Plant & Equipment, Gasket Material - Chrysotile Asbestos Detected



Line ID 18.1: Internal, Basement, Switchboard Room, 0003, Plant & Equipment, Gasket Material - Chrysotile Asbestos Detected



Line ID 19: Internal, Basement, Switchboard Room, 0003, Plant & Equipment Pipework, Central, Bituminous Wrap - No Asbestos Detected



Line ID 19.1: Internal, Basement, Switchboard Room, 0003, Plant & Equipment Pipework, Central, Bituminous Wrap - No Asbestos Detected



Line ID 20: Internal, GF, Kitchen, Door Frames, Throughout, Green (Light) Paint - Lead Detected (0.099% w/w)



Line ID 20.1: Internal, GF, Kitchen, Door Frames, Throughout, Green (Light) Paint - Lead Detected (0.099% w/w)



Line ID 21: Internal, GF, Kitchen, Wall lining, Throughout, Blue (Light) Paint - Lead Detected (0.02% w/w)



Line ID 22: Internal, Basement, Switchboard Room, 0003, Doors, Throughout, Brown (Light) Paint - Lead Detected (0.03% w/w)



Line ID 23: External, GF, All Areas, Hot Water Heater, Adjacent Roof Access, Insulation Material - Suspected SMF



Line ID 24: Internal, GF, Kitchen, Hot Water Heater, Adjacent Dishwasher, Insulation Material - Suspected SMF



Line ID 25: Internal, Basement, Switchboard Room, 0003, Pipework, Throughout, Insulation Material - Suspected SMF

Appendix D: Risk Assessment

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Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

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Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC, 1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

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Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

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Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.

NSW Health Infrastructure c/o Turner & Townsend
Asbestos and Hazardous Materials Pre-Demolition Assessment
Maintenance Workshop

Cessnock Hospital

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Appendix A: Asbestos and Hazardous Materials Register

Appendix B: Laboratory Analysis Certificate

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Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Maintenance Workshop located at Cessnock Hospital, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Cessnock Hospital, Maintenance Workshop	✓	✓	✓	✓	✓	✓	-

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Maintenance Workshop located at Cessnock Hospital, Cessnock NSW 2325 (the site). Sam Crofts of Tetra Tech conducted the assessment on the 05/07/2024.

Note: The building was occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the building has been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of the Maintenance Workshop located at Cessnock Hospital, Cessnock NSW 2325 (the site).

Table 1: Site Information

Site:	Maintenance Workshop, Cessnock Hospital, Cessnock NSW 2325
Age (Circa):	1950's
Site Description:	Maintenance Workshop Building

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
External / GF / Room 1040, Old Coal Bunker / Floor, Throughout	Fibre Cement Debris	Medium
Internal / GF / Laundry / Floor Covering, Throughout	Vinyl Floor Tiles (grey with white specs, large squares)	Medium
Internal / GF / Laundry / Pipework, Throughout	Lagging	Medium
Internal / GF / Main Workshop Area / Ceiling Space, Central	Lagging (metal encased material)	Medium
Internal / GF / Painters Shop / Pipework Penetration, Northeast Adjacent Generator	Lagging	Medium
Internal / GF / Room 1032, Toilet / Floor Covering, Throughout	Vinyl Floor Tiles (grey with white specs)	Medium
External / GF / Adjacent Clinical Information Department Entrance / Awning	Fibre Cement Sheeting	Low
External / GF / All Areas / Eaves, Throughout	Fibre Cement Sheeting	Low
External / GF / All Areas / Gable End, Site Office Entrance, Roof	Fibre Cement Sheeting	Low
External / GF / All Areas / Infill Panel, Above windows, Throughout	Fibre Cement Sheeting	Low
External / GF / All Areas / Infill Panel, Adjacent Site Office Roller Door, Above Window	Fibre Cement Sheeting	Low
External / GF / Room 1040, Old Coal Bunker / Wall Lining, Southeast	Fibre Cement Sheeting	Low
External / GF / Workshop Entrance / Wall Lining	Fibre Cement Sheeting	Low
Internal / GF / 1044, Painters Room / Electrical Distribution Board DB18, Adjacent Roller Door	Internal Electrical Components	Low
Internal / GF / Kitchenette / Pipework, Central	Lagging	Low
Internal / GF / Laundry / Floor Covering, Throughout	Vinyl Floor Tiles (grey with white specs, large squares) - Painted green	Low
Internal / GF / Laundry / Floor Covering, Various Throughout	Vinyl Floor Tiles (khaki green with white specs)	Low

Internal / GF / Laundry / Floor covering, Throughout	Vinyl Floor Tiles (grey with white specs)	Low
Internal / GF / Laundry / Pipework, Central	Gasket Material	Low
Internal / GF / Laundry / Pipework, Central	Gasket Material	Low
Internal / GF / Laundry / Pipework, North East	Gasket Material	Low
Internal / GF / Laundry / Pipework, Southwest	Gasket Material	Low
Internal / GF / Maintenance Office / Floor Covering, Throughout	Vinyl Floor Tiles (yellow)	Low
Internal / GF / Maintenance Office / Floor Covering, Various Throughout	Vinyl Floor Tiles (red)	Low
Internal / GF / Maintenance Office / Floor Covering, Various Throughout	Vinyl Floor Tiles (blue)	Low
Internal / GF / Main Switchboard Room / Electrical Distribution Board 1	Internal Electrical Components	Low
Internal / GF / Main Switchboard Room / Electrical Distribution Board 1, Central	Compressed Bituminous Panel	Low
Internal / GF / Maintenance Office / Ceiling Lining, Throughout	Fibre Cement Sheeting	Low
Internal / GF / Room 1021 & 1022 / Ceiling Lining, Throughout	Fibre Cement Sheeting	Low
Internal / GF / Room 1032, Toilet / Ceiling, Throughout	Fibre Cement Sheet	Low
Internal / GF / Room 1034, Storage / Packer/Ceiling Lining, South West	Fibre Cement Sheeting	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
External / GF / Roof / Roof, Throughout	Brown (Dark) Paint	Low
External / GF / All Areas / Ceiling lining, Adjacent Clinical Information Department Entrance	White Paint	Low

2.1.3. Lead Containing Dust

Location	Material Description	Risk Rating
Internal / GF / All Areas / Laundry, High Level Surfaces, Throughout	Dust	Low
Internal / GF / Painters Shop / Ceiling Space, Throughout	Dust	Low

2.1.4. Synthetic Mineral Fibres

Location	Material Description	Risk Rating
Internal / GF / Main Workshop Area / Ceiling Space, All Surfaces, Throughout	Dust	Low
Internal / GF / Painters Shop / Ceiling Space, Throughout	Dust	Low
Internal / GF / Main Workshop Area / Pillow Insulation, Cable Penetration, East	Insulation Material	Very Low
External / GF / All Areas / Walkway Between Palliative Storage and Emergency, Below Window	Construction Joint Mastic	Very Low
Internal / GF / Laundry / Insulation Batts, On Top of Office Ceiling	Insulation Material	Very Low
Internal / GF / Palliative Care Storage Loading Dock / Floor Covering, Throughout	Vinyl Sheet (white)	Very Low
Internal / GF / Room 1034, Storage / Sarking, Roof Lining	Insulation Material	Very Low
Internal / GF / 1044, Painters Room / Ceiling Space	Insulation Batts	Very Low
Internal / GF / 1044, Painters Room / Ceiling Space, Pipework	Insulation Material	Very Low
Internal / GF / 1044, Painters Room / Ceiling Space, Sarking	Insulation Material	Very Low
Internal / GF / Kitchen / Hot Water Heater, Above Sink	Internal Insulation Material	Very Low
Internal / GF / Kitchenette / Hot Water Heater, Adjacent Entry	Internal Insulation Material	Very Low
Internal / GF / Main Workshop Area / Ceiling Space, Pipework, Central	Insulation Material	Very Low

2.1.5. Polychlorinated Biphenyls

Location	Material Description	Risk Rating
Internal / GF / Laundry / Fluorescent Light Fitting, Throughout	Capacitor(s)	Very Low
Internal / GF / Painters Shop / Ceiling Space, Stored Item, Fluorescent Light Fitting	Capacitor(s)	Very Low

2.1.6. Ozone Depleting Substances

No suspect ODS's identified at the time of the assessment.

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout; and
- Areas outside the scope of assessment.
- External GF Subfloor - No access hatch present or accessible at time of inspection.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Ceiling voids – areas adjacent to access hatches inspected only;
- Wall voids;
- Below floors;
- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;
- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.
- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.
- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.
- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.
- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.
- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Lead Based Paint

- Any works that are likely to disturb lead based paint surface should be undertaken in accordance with the Australian Standard (AS4361.2:2017), Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings.
- Prior to any disturbance of lead based paint a comprehensive risk assessment is to be conducted.
- Any loose and peeling lead based paint should be stabilised (using hand-held scrapers, drop cloths and wet misting where appropriate) and the paint chips disposed of as hazardous waste.
- Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor).

3.3. Lead Containing Dust

- Any work processes involving lead containing dust must be undertaken in a manner to ensure that no worker is exposed to lead at concentrations above the workplace exposure standard (WES) of 0.05mg/m³ over an eight-hour day.
- Prior to any disturbance of lead containing dust a comprehensive risk assessment is to be conducted.
- Lead containing dust removal works should include the use of high efficiency particulate air (HEPA) filtered vacuum cleaners and wet wiping techniques by a licensed contractor under controlled lead-containing dust conditions in conjunction with air monitoring and clearances by a competent hygienist.

3.4. Synthetic Mineral Fibres

- SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].

3.5. Polychlorinated Biphenyls

- It may not be considered feasible to inspect every light fitting within a premise as information available in the public domain on the identification of PCB-containing capacitors is limited. However, all metal capacitors should be treated as containing PCB unless determined otherwise
- All capacitors containing or suspected as PCB or the fluorescent light fittings likely to be disturbed during future works should be removed prior to any future demolition, partial demolition, renovation or refurbishment in accordance with Department of Occupational Health, Safety and Welfare, *Safe Handling of PCB in Fluorescent Light Capacitors* – 1993 and with the *Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*.

3.6. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/ refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

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Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Adjacent Clinical Information Department Entrance / Awning	Fibre Cement Sheeting	Asbestos	A10610	Chrysotile Asbestos Detected	Non-Friable	20 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	1
External	GF / All Areas / Eaves, Throughout	Fibre Cement Sheeting	Asbestos	Previously Sampled WS-05	Chrysotile Asbestos Detected	Non-Friable	40 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	2
External	GF / Gable End, Site Office Entrance, Roof	Fibre Cement Sheeting	Asbestos	Previously Sampled WS-05.1	Chrysotile Asbestos Detected	Non-Friable	8 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	3
External	GF / All Areas / Infill Panel, Above windows, Throughout	Fibre Cement Sheeting	Asbestos	A10606	Chrysotile Asbestos Detected	Non-Friable	20 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	4

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Infill Panel, Adjacent Site Office Roller Door, Above Window	Fibre Cement Sheeting	Asbestos	Previously Sampled WS-05.2	Chrysotile Asbestos Detected	Non-Friable	3 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	5
External	GF / Southwest, Between Bricks, Adjacent Doctors Parking Space	Construction Joint Mastic	Asbestos	A10608	No Asbestos Detected	-	4 m	-	-	-	-	6
External	GF / All Areas / Walkway Between Palliative Storage and Emergency, Below Window	Construction Joint Mastic	Asbestos	A10609	No Asbestos Detected	-	20 m	-	-	-	-	7
External	GF / Fire Hydrant Pump Room / Fire Hydrant	Gasket Material	Asbestos	A10607	No Asbestos Detected	-	4 Units	-	-	-	-	8
External	GF / Palliative Care Equipment Room / Wall Lining, Roller door	Fibre Cement Sheeting	Asbestos	A10605	No Asbestos Detected	-	8 m²	-	-	-	-	9
External	GF / Room 1040, Old Coal Bunker / Floor, Throughout	Fibre Cement Debris	Asbestos	A10612	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	20 m²	Poor	Medium	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions as soon as reasonably practicable by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes. Restrict access in the interim.	10

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Room 1040, Old Coal Bunker / Wall Lining, Southeast	Fibre Cement Sheeting	Asbestos	A10613	Chrysotile Asbestos Detected	Non-Friable	15 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	11
External	GF / Workshop Entrance / Wall Lining	Fibre Cement Sheeting	Asbestos	A10610.1	Chrysotile Asbestos Detected	Non-Friable	6 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	12
Internal	GF / 1044, Painters Room / Access Hatch, Central	Fibre Cement Sheeting	Asbestos	A10614	No Asbestos Detected	-	1 m²	-	-	-	-	13
Internal	GF / 1044, Painters Room / Electrical Distribution Board DB18, Adjacent Roller Door	Internal Electrical Components	Asbestos	754-NTLEN347071-1maintenance Workshop 493A3	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Not sampled - Live electrical hazard. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	14
Internal	GF / Dryer Room / Wall Lining	Fibre Cement Sheeting	Asbestos	A10615.1	No Asbestos Detected	-	12 m²	-	-	-	-	15

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Kitchen / Wall Lining, Hallway to Painters Shop	Fibre Cement Sheeting	Asbestos	A10615	No Asbestos Detected	-	10 m²	-	-	-	-	16
Internal	GF / Kitchenette / Pipework, Central	Lagging	Asbestos	A27968.1	Amosite Asbestos Detected	Friable	3 m	Stable	Low	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	17
Internal	GF / Laundry / Floor covering, Throughout	Vinyl Floor Tiles (grey with white specs)	Asbestos	A10616.2	Chrysotile Asbestos Detected	Non-Friable	60 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	18
Internal	GF / Laundry / Floor Covering, Throughout	Vinyl Floor Tiles (grey with white specs, large squares)	Asbestos	A10616	Chrysotile Asbestos Detected	Non-Friable	60 m²	Poor	Medium	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	19
Internal	GF / Laundry / Floor Covering, Throughout	Vinyl Floor Tiles (grey with white specs, large squares) - Painted green	Asbestos	A10616.1	Chrysotile Asbestos Detected	Non-Friable	38 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	20

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Laundry / Floor Covering, Various Throughout	Vinyl Floor Tiles (khaki green with white specs)	Asbestos	A10617	Chrysotile Asbestos Detected	Non-Friable	6 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	21
Internal	GF / Laundry / High Level Surfaces, Throughout	Dust	Asbestos	A27969	No Asbestos Detected	-	150 m²	-	-	-	-	22
Internal	GF / Laundry / Pipework, Central	Gasket Material	Asbestos	A27971	Chrysotile Asbestos Detected	Non-Friable	4 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	23
Internal	GF / Laundry / Pipework, Central	Gasket Material	Asbestos	A27970	Chrysotile Asbestos Detected	Non-Friable	2 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	24
Internal	GF / Laundry / Pipework, North East	Gasket Material	Asbestos	A27970.1	Chrysotile Asbestos Detected	Non-Friable	2 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant	25

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	GF / Laundry / Pipework, Southwest	Gasket Material	Asbestos	A27972	Chrysotile Asbestos Detected	Non-Friable	3 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	26
Internal	GF / Laundry / Pipework, Throughout	Lagging	Asbestos	A27968	Amosite Asbestos Detected	Friable	150 m	Fair	Medium	Prior to refurbishment or demolition	Restrict access and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	27
Internal	GF / Linen Loading Dock / Wall lining, Southeast	Fibre Cement Sheeting	Asbestos	A10620	No Asbestos Detected	-	10 m ²	-	-	-	-	28
Internal	GF / Main Switchboard Room / Electrical Distribution Board 1	Internal Electrical Components	Asbestos	754-NTLEN347071-1maintenance Workshop 493A5	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Not sampled - Live electrical hazard. Confirm Status and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	29

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Main Switchboard Room / Electrical Distribution Board 1, Central	Compressed Bituminous Panel	Asbestos	754-NTLEN347071-1maintenance Workshop 493A5.1	Suspected Asbestos	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Not sampled - Live electrical hazard. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	30
Internal	GF / Main Workshop Area / Ceiling Space, All Surfaces, Throughout	Dust	Asbestos	A27975	No Asbestos Detected	-	40 m²	-	-	-	-	31
Internal	GF / Main Workshop Area / Ceiling Space, Central	Lagging (metal encased material)	Asbestos	754-NTLEN347071-1maintenance Workshop 493A8	Suspected Asbestos	Friable	10 m	Fair	Medium	Prior to refurbishment or demolition	Not sampled - Limited access to ceiling space. Restrict access and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	32
Internal	GF / Main Workshop Area / Entrance Adjacent Toilet, Wall Lining	Fibre Cement Sheeting	Asbestos	A27973	No Asbestos Detected	-	10 m²	-	-	-	-	33
Internal	GF / Maintenance Office / Ceiling Lining, Throughout	Fibre Cement Sheeting	Asbestos	A27974.1	Chrysotile and Amosite Asbestos Detected	Non-Friable	20 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	34

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Maintenance Office / Floor Covering, Throughout	Vinyl Floor Tiles (yellow)	Asbestos	A27978	Chrysotile Asbestos Detected	Non-Friable	15 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	35
Internal	GF / Maintenance Office / Floor Covering, Various Throughout	Vinyl Floor Tiles (red)	Asbestos	A27976	Chrysotile Asbestos Detected	Non-Friable	2 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	36
Internal	GF / Maintenance Office / Floor Covering, Various Throughout	Vinyl Floor Tiles (blue)	Asbestos	A27977	Chrysotile Asbestos Detected	Non-Friable	2 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	37
Internal	GF / Painters Shop / Ceiling Space, Throughout	Dust	Asbestos	A27836	No Asbestos Detected	-	100 m²	-	-	-	-	38
Internal	GF / Painters Shop / Pipework Penetration, Northeast Adjacent Generator	Lagging	Asbestos	A27968.3	Amosite Asbestos Detected	Friable	4 Units	Fair	Medium	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	39

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Palliative Care Storage Loading Dock / Ceiling lining, Throughout	Fibre Cement Sheeting	Asbestos	A10605.2	No Asbestos Detected	-	20 m²	-	-	-	-	40
Internal	GF / Palliative Care Storage Loading Dock / Floor Covering, Throughout	Vinyl Sheet (white)	Asbestos	A10619	No Asbestos Detected	-	20 m²	-	-	-	-	41
Internal	GF / Palliative Care Storage Loading Dock / Floor Covering, Throughout	Compressed Cement Sheeting	Asbestos	A10618	No Asbestos Detected	-	30 m²	-	-	-	-	42
Internal	GF / Palliative Care Storage Loading Dock / Wall lining, Throughout	Fibre Cement Sheeting	Asbestos	A10605.1	No Asbestos Detected	-	20 m²	-	-	-	-	43
Internal	GF / Room 1021 & 1022 / Ceiling Lining, Throughout	Fibre Cement Sheeting	Asbestos	A27974.2	Chrysotile and Amosite Asbestos Detected	Non-Friable	30 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	44

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Room 1032, Toilet / Ceiling, Throughout	Fibre Cement Sheet	Asbestos	A27974.3	Chrysotile and Amosite Asbestos Detected	Non-Friable	6 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	45
Internal	GF / Room 1032, Toilet / Floor Covering, Throughout	Vinyl Floor Tiles (grey with white specs)	Asbestos	A10611	Chrysotile Asbestos Detected	Non-Friable	10 m²	Poor	Medium	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	46
Internal	GF / Room 1034, Storage / Packer/Ceiling Lining, South West	Fibre Cement Sheeting	Asbestos	A27974	Chrysotile and Amosite Asbestos Detected	Non-Friable	10 m	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	47
External	GF / All Areas / Ceiling lining, Adjacent Clinical Information Department Entrance	White Paint	Lead Paint	L22335	Lead Detected (0.14% w/w)	-	20 m²	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	48

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / All Areas / Doors & Frames, Throughout	Purple (Light) Paint	Lead Paint	L22336	Lead Detected (0.04% w/w)	-	40 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	49
External	GF / Roof, Throughout	Brown (Dark) Paint	Lead Paint	L18423	Lead Detected (0.22% w/w)	-	400 m²	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	50
Internal	GF / All Areas / Wall Lining, Throughout	White Paint	Lead Paint	L22342.1	Lead Detected (0.04% w/w)	-	100 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	51
Internal	GF / Painters Shop / Wall Lining, Throughout	White Paint	Lead Paint	L22342	Lead Detected (0.04% w/w)	-	60 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	52
Internal	GF / Room 1032, Toilet / Wall lining, Throughout	White Paint	Lead Paint	L22341	Lead Detected (<0.005% w/w)	-	20 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	53

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / All Areas / Laundry, High Level Surfaces, Throughout	Dust	Lead Dust	L22387	Lead Detected (270 mg/kg)	-	130 m²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	54
Internal	GF / Painters Shop / Ceiling Space, Throughout	Dust	Lead Dust	L22386	Lead Detected (220mg/kg)	-	100 m²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	55
External	GF / All Areas / Walkway Between Palliative Storage and Emergency, Below Window	Construction Joint Mastic	SMF	A10609.1	SMF Detected	-	20 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	56
Internal	GF / 1044, Painters Room / Ceiling Space	Insulation Batts	SMF	754-NTLEN347071-1maintenance Workshop 493S3	Suspected SMF	-	100 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	57

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / 1044, Painters Room / Ceiling Space, Pipework	Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S4	Suspected SMF	-	20 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	58
Internal	GF / 1044, Painters Room / Ceiling Space, Sarking	Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S5	Suspected SMF	-	200 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	59
Internal	GF / Kitchen / Hot Water Heater, Above Sink	Internal Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S1	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	60
Internal	GF / Kitchenette / Hot Water Heater, Adjacent Entry	Internal Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S2	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	61

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Laundry / Insulation Batts, On Top of Office Ceiling	Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S9	Suspected SMF	-	100 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	62
Internal	GF / Main Workshop Area / Ceiling Space, All Surfaces, Throughout	Dust	SMF	A27975.1	SMF Detected	-	40 m²	-	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	63
Internal	GF / Main Workshop Area / Ceiling Space, Pipework, Central	Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S6	Suspected SMF	-	10 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	64
Internal	GF / Main Workshop Area / Pillow Insulation, Cable Penetration, East	Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S8	Suspected SMF	-	4 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	65
Internal	GF / Painters Shop / Ceiling Space, Throughout	Dust	SMF	A27836.1	SMF Detected	-	100 m²	-	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	66

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Palliative Care Storage Loading Dock / Floor Covering, Throughout	Vinyl Sheet (white)	SMF	A10619.1	SMF Detected	-	20 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	67
Internal	GF / Room 1034, Storage / Sarking, Roof Lining	Insulation Material	SMF	754-NTLEN347071-1maintenance Workshop 493S7	Suspected SMF	-	30 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	68
Internal	GF / Laundry / Fluorescent Light Fitting, Throughout	Capacitor(s)	PCB	754-NTLEN347071-1Maintenance Workshop 493P2	Suspected PCB	-	10 Units	-	Very Low	-	PCB-containing capacitors are unlikely to be present due to age and appearance of light fittings. Confirm PCB status prior to refurbishment or demolition works.	69
Internal	GF / Painters Shop / Ceiling Space, Stored Item, Fluorescent Light Fitting	Capacitor(s)	PCB	754-NTLEN347071-1Maintenance Workshop 493P1	Suspected PCB	-	20 Units	-	Very Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.	70
External	GF / All Areas / Air conditioner, Various throughout	Unknown Refrigerant	ODS	754-NTLEN347071-1Maintenance	Non ODS Refrigerant	-	4 Units	-	-	-	Suspected negative due to age and appearance.	71

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
				Workshop 493O3								
External	GF / Roof / Air Conditioning Unit, Central	R404A Hydrofluorocarbon (HFC)	ODS	754- NTLEN347071- 1Maintenance Workshop 493O1	Non ODS Refrigerant	-	1 Unit	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	72
Internal	GF / Kitchen / Air Conditioner, Adjacent Sink	Unknown Refrigerant	ODS	754- NTLEN347071- 1Maintenance Workshop 493O2	Non ODS Refrigerant	-	1 Unit	-	-	-	Suspected negative due to age and appearance.	73
External	GF / Subfloor	-	No Access	-	-	-	-	-	-	-	No access hatch present or accessible at time of inspection. No or limited access potential hazardous materials present within inaccessible areas	74

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital Maintenance 16072024
Client: NSW Health Infrastructure
Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma
E-mail: Les.Palma@turntown.com
Date Sampled: 05-07-2024
Date Analysed: 16-17/07/2024
Date Authorised: 18-07-2024
Sampled By: Ben McCann
Site: Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
 Accreditation No:2220
 Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Asbestos in Bulk Samples and Non-homogenous Material

Test Method: Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 28

Approved Identifier
 Panika Wongchanda

Approved Signatory
 Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A10605	External, GF, All Areas, Wall lining, Palliative care equipment room, Roller door, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	16 x 11 x 3 mm	No asbestos fibres detected Organic fibres detected
A10606	External, GF, All Areas, Infill panel, above windows, Throughout, Fibre Cement Sheeting - Beige layered fibre cement sheet material	26 x 17 x 3 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10607	External, GF, All Areas, Fire hydrant pump room, Fire hydrant, Gasket Material - Black rubbery gasket material	35 x 9 x 3 mm	No asbestos fibres detected Organic fibres detected
A10608	External, GF, All Areas, Southwest, between brick, Adjacent doctor parking spot, Construction Joint Mastic - Black bituminous material	13 x 9 x 7 mm	No asbestos fibres detected Organic fibres detected
A10609	External, GF, All Areas, Walkway between palliative storage and Emergency, below window, Construction Joint Mastic - Black bituminous material	27 x 12 x 6 mm	No asbestos fibres detected Organic fibres detected Synthetic mineral fibres detected
A10610	External, GF, All Areas, Awning, Adjacent clinical information department entrance, Fibre Cement Sheeting - Blue painted beige layered fibre cement sheet material	14 x 6 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10611	Internal, GF, Room 1032, Toilet, Floor covering, Throughout, Vinyl Floor Tiles (grey with white specs) A. Grey vinyl tile B. Amber adhesive	61 x 58 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10612	External, GF, Room 1040, Old Coal Bunker, Floor, Throughout, Fibre Cement debris - Grey compressed fibre cement sheet material	56 x 27 x 3 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Crocidolite (blue asbestos) detected

Sample No.	Location & Description	Sample Size (~)	Results
A10613	External, GF, Room 1040, Old Coal Bunker, Wall lining, Southeast, Fibre Cement Sheeting - Beige layered fibre cement sheet material	13 x 6 x 3 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10614	Internal, GF, 1044, Painters Room, Access hatch, Central, Fibre Cement Sheeting - Beige fibre cement sheet material	18 x 12 x 2 mm	No asbestos fibres detected Organic fibres detected
A10615	Internal, GF, Kitchen, Wall lining, Hallway to painters shop, Fibre Cement Sheeting - Beige fibre cement sheet material	18 x 5 x 2 mm	No asbestos fibres detected Organic fibres detected
A10616	Internal, GF, All Areas, Floor covering, Laundry, Throughout, Vinyl Floor Tiles (grey with white specs, large squares) A. Grey vinyl tile B. Amber adhesive	120 x 52 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10617	Internal, GF, All Areas, Laundry, Floor covering, Various throughout, Vinyl Floor Tiles (khaki green with white specs) - A. Green vinyl tile B. Amber adhesive	61 x 36 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10618	Internal, GF, Palliative Care Storage Loading Dock, Floor covering, Throughout, Compressed Cement Sheeting - Beige layered fibre cement sheet material	16 x 13 x 2 mm	No asbestos fibres detected Organic fibres detected
A10619	Internal, GF, Palliative Care Storage Loading Dock, Floor covering, Throughout, Vinyl Sheet (white) - Grey vinyl sheet & fibrous backing material	93 x 64 x 2 mm	No asbestos fibres detected Organic fibres detected Synthetic mineral fibres detected
A10620	Internal, GF, All Areas, Linen loading dock, Wall lining, Southeast, Fibre Cement Sheeting - Beige fibre cement sheet material	25 x 12 x 2 mm	No asbestos fibres detected Organic fibres detected
A27836	Internal, GF, Painters Shop, Ceiling Space, Throughout, Dust - Brown non-homogenous fibrous dust & debris	4.2 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A27968	Internal, GF, All Areas, Laundry, Pipework, Throughout, Lagging - White insulation material	55 x 25 x 2 mm	Amosite (brown asbestos) detected
A27969	Internal, GF, All Areas, Laundry, High level surfaces, Throughout, Dust - Brown non-homogenous fibrous dust & debris	2.0 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A27970	Internal, GF, All Areas, Laundry, Pipework, Central, Gasket Material - Beige fibrous gasket material	33 x 20 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected
A27971	Internal, GF, All Areas, Laundry, Pipework, Central, Gasket Material - Brown fibrous gasket material	13 x 6 x 2 mm	Chrysotile (white asbestos) detected
A27972	Internal, GF, All Areas, Laundry, Pipework, Southwest, Gasket Material - Brown fibrous gasket material	17 x 9 x 3 mm	Chrysotile (white asbestos) detected
A27973	Internal, GF, Main Workshop Area, Entrance adjacent toilet, Wall lining, Fibre Cement Sheeting - Beige fibre cement sheet material	17 x 9 x 1 mm	No asbestos fibres detected Organic fibres detected
A27974	Internal, GF, Room 1034, Storage, Packer/Ceiling lining, South west, Fibre Cement Sheeting - Beige layered fibre cement sheet material	29 x 19 x 3 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Organic fibres detected
A27975	Internal, GF, Main Workshop Area, Ceiling Space, All surfaces, Throughout, Dust - Brown non-homogenous fibrous dust & debris	9.8 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004

Sample No.	Location & Description	Sample Size (~)	Results
A27976	Internal, GF, Maintenance Office, Floor covering, Various throughout, Vinyl Floor Tiles (red) A. Red vinyl tile B. Amber adhesive	71 x 41 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A27977	Internal, GF, Maintenance Office, Floor covering, Various throughout, Vinyl Floor Tiles (blue) A. Blue vinyl tile B. Amber adhesive	96 x 52 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A27978	Internal, GF, Maintenance Office, Floor covering, Throughout, Vinyl Floor Tiles (yellow) A. Orange vinyl tile B. Amber adhesive	58 x 36 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected

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CERTIFICATE OF ANALYSIS 356694

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN34707-1, Cessnock Hospital Survey</u>
Number of Samples	5 Paint, 2 Dust
Date samples received	16/07/2024
Date completed instructions received	16/07/2024

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 solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	23/07/2024
Date of Issue	23/07/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager
Loren Bardwell, Development Chemist

Authorised By

Nancy Zhang, Laboratory Manager

Lead in Paint						
Our Reference		356694-1	356694-2	356694-3	356694-4	356694-5
Your Reference	UNITS	L18423	L22335	L22336	L22341	L22342
Date Sampled		05/07/2024	05/07/2024	05/07/2024	05/07/2024	05/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024	18/07/2024	18/07/2024
Lead in paint	%w/w	0.22	0.14	0.04	<0.005	0.04

Lead (dust)			
Our Reference		356694-6	356694-7
Your Reference	UNITS	L22386	L22387
Date Sampled		05/07/2024	05/07/2024
Type of sample		Dust	Dust
Date prepared	-	23/07/2024	23/07/2024
Date analysed	-	23/07/2024	23/07/2024
Lead	mg/kg	220	270

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES.
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 754-NTLEN34707-1, Cessnock Hospital Survey

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/07/2024	5	17/07/2024	17/07/2024		23/07/2024	[NT]
Date analysed	-			23/07/2024	5	18/07/2024	18/07/2024		23/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	5	0.04	0.074	60	98	[NT]

Client Reference: 754-NTLEN34707-1, Cessnock Hospital Survey

QUALITY CONTROL: Lead (dust)						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/07/2024	[NT]	[NT]	[NT]	[NT]	23/07/2024	[NT]
Date analysed	-			23/07/2024	[NT]	[NT]	[NT]	[NT]	23/07/2024	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Lead in Paint:

- The RPD for duplicate results is accepted due to the inhomogeneous nature of the sample.
- Repeat analysis was not possible due to the limited amount of sample available for testing.

**AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD**
ABN 36 088 095 112

Our ref: ASET63483/ 66663 / 1 - 8
Your ref: 17.1624 - Cessnock Hospital - Workshops Laundry
NATA Accreditation No: 14484

29 March 2018

Practical Environmental Solutions
PO Box 167
Mayfield NSW 2304

Attn: Mr Tony Milligan

Dear Tony

Asbestos Identification
This report presents the results of eight samples, forwarded by Practical Environmental Solutions on 29 March 2018, for analysis for asbestos.

1.Introduction:Eight samples forwarded were examined and analysed for the presence of asbestos.

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).

3. Results :

Sample No. 1. ASET63483/ 66663 / 1. WS01 - Rear awning/verandah (Laundry).
Approx dimensions 2.0 cm x 1.0 cm x 0.5 cm
The sample consisted of a fragment of a fibre cement material.
Chrysotile asbestos and Amosite asbestos detected.

Sample No. 2. ASET63483/ 66663 / 2. WS02 - VFT's (9x9).
Approx dimensions 15.0 cm x 10.0 cm x 0.3 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 3. ASET63483/ 66663 / 3. WS03 - VFT's (30x30cm).
Approx dimensions 15.0 cm x 15.0 cm x 0.4 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 4. ASET63483/ 66663 / 4. WS04 - Wall lining to loading dock (1013).
Approx dimensions 0.6 cm x 0.6 cm x 0.3 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
No asbestos detected.

Sample No. 5. ASET63483/ 66663 / 5. WS05 - Ceiling lining to loading dock (1013).
Approx dimensions 1.0 cm x 0.6 cm x 0.3 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
Chrysotile asbestos detected.



WORLDWIDE
ACCREDITATION

Accredited for compliance with ISO/IEC 17025.

ASET

Sample No. 6. ASET63483 / 66663 / 6. WS06 - Floor cover to loading dock.
Approx dimensions 8.0 cm x 4.0 cm x 0.25 cm
The sample consisted of fragments of a linoleum floor covering material having a backing fibrous material containing synthetic mineral fibres and organic fibres.
No asbestos detected.

Sample No. 7. ASET63483 / 66663 / 7. WS07 - Compressed floor loading dock.
Approx dimensions 0.8 cm x 0.6 cm x 0.3 cm
The sample consisted of a fragment of a fibre plaster cement material containing organic fibres.
No asbestos detected.

Sample No. 8. ASET63483 / 66663 / 8. WS08 - VFT's to storeroom.
Approx dimensions 15.0 cm x 12.0 cm x 0.3 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Analysed and reported by.



Nisansala Maddage. BSc(Hons), Grad Dip (Occ Hyg)
Occupational Hygienist/Approved Identifier
Approved Signatory



Accredited for compliance with ISO/IEC 17025.

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 AS4964-2004. Trace / respirable level asbestos will be reported only when detected.

Appendix C: Photographs

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Line ID 1: External, GF, Adjacent Clinical Information Department Entrance, Awning, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 2: External, GF, All Areas, Eaves, Throughout, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 2.1: External, GF, All Areas, Eaves, Throughout, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 3: External, GF, Gable End, Site Office Entrance, Roof, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 4: External, GF, All Areas, Infill Panel, Above windows, Throughout, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 4.1: External, GF, All Areas, Infill Panel, Above windows, Throughout, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 5: External, GF, Infill Panel, Adjacent Site Office Roller Door, Above Window, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 6: External, GF, Southwest, Between Brick, Adjacent Doctor Parking Spot, Construction Joint Mastic - No Asbestos Detected



Line ID 6.1: External, GF, All Areas, Southwest, Between Brick, Adjacent Doctor Parking Spot, Construction Joint Mastic - No Asbestos Detected



Line ID 7: External, GF, All Areas, Walkway Between Palliative Storage and Emergency, Below Window, Construction Joint Mastic - No Asbestos Detected



Line ID 7.1: External, GF, All Areas, Walkway Between Palliative Storage and Emergency, Below Window, Construction Joint Mastic - No Asbestos Detected



Line ID 8: External, GF, Fire Hydrant Pump Room, Fire Hydrant, Gasket Material - No Asbestos Detected



Line ID 8.1: External, GF, Fire Hydrant Pump Room, Fire Hydrant, Gasket Material - No Asbestos Detected



Line ID 9: External, GF, Palliative Care Equipment Room, Wall Lining, Roller door, Fibre Cement Sheeting - No Asbestos Detected



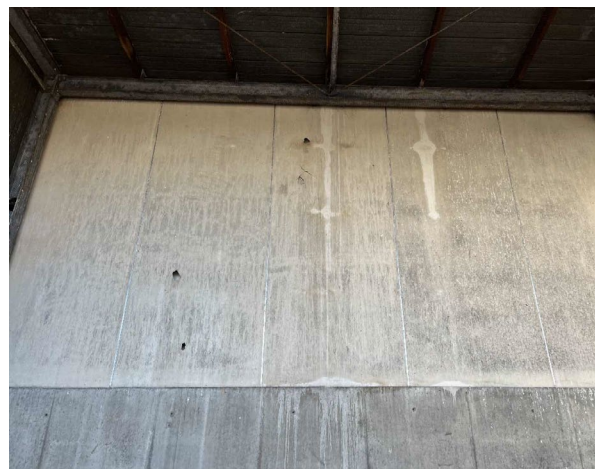
Line ID 9.1: External, GF, Palliative Care Equipment Room, Wall Lining, Roller door, Fibre Cement Sheeting - No Asbestos Detected



Line ID 10: External, GF, Room 1040, Old Coal Bunker, Floor, Throughout, Fibre Cement Debris - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 10.1: External, GF, Room 1040, Old Coal Bunker, Floor, Throughout, Fibre Cement Debris - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 11: External, GF, Room 1040, Old Coal Bunker, Wall Lining, Southeast, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 12: External, GF, Workshop Entrance, Wall Lining, Fibre Cement Sheeting - Chrysotile Asbestos Detected



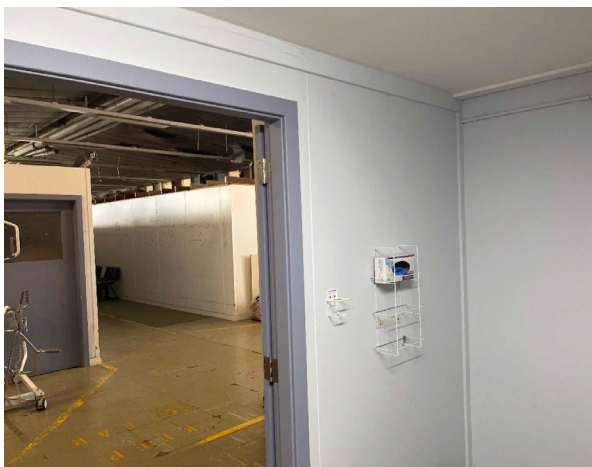
Line ID 12.1: External, GF, Workshop Entrance, Wall Lining, Fibre Cement Sheeting - Chrysotile Asbestos Detected



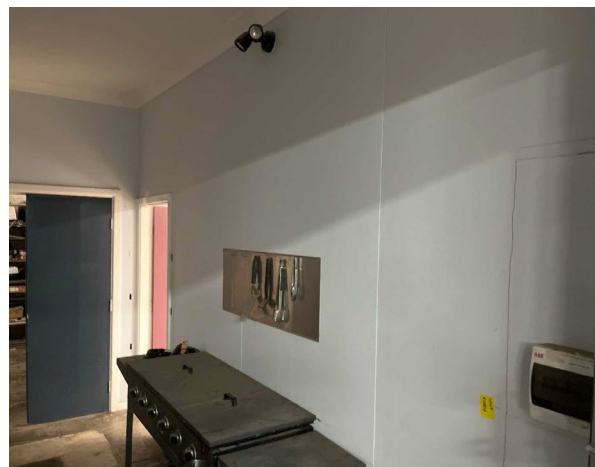
Line ID 13: Internal, GF, 1044, Painters Room, Access Hatch, Central, Fibre Cement Sheeting - No Asbestos Detected



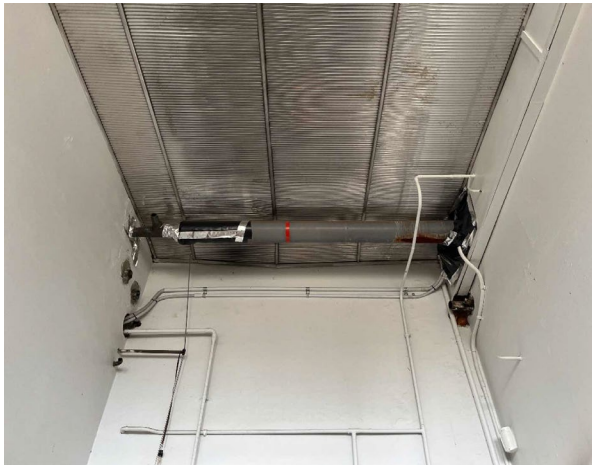
Line ID 14: Internal, GF, 1044, Painters Room, Electrical Distribution Board DB18, Adjacent Roller Door, Internal Electrical Components - Suspected Asbestos



Line ID 15: Internal, GF, Dryer Room, Wall Lining, Fibre Cement Sheeting - No Asbestos Detected



Line ID 16: Internal, GF, Kitchen, Wall Lining, Hallway to Painters Shop, Fibre Cement Sheeting - No Asbestos Detected



Line ID 17: Internal, GF, Kitchenette, Pipework, Central, Lagging – Amosite Asbestos Detected



Line ID 18: Internal, GF, Laundry, Floor covering, Throughout, Vinyl Floor Tiles (grey with white specs) - Suspected Asbestos



Line ID 19: Internal, GF, Laundry, Floor Covering, Throughout, Vinyl Floor Tiles (grey with white specs, large squares) - Chrysotile Asbestos Detected



Line ID 19.1: Internal, GF, Laundry, Floor Covering, Throughout, Vinyl Floor Tiles (grey with white specs, large squares) - Chrysotile Asbestos Detected



Line ID 20: Internal, GF, Laundry, Floor Covering, Throughout, Vinyl Floor Tiles (grey with white specs, large squares) - Painted green - Chrysotile Asbestos Detected



Line ID 21: Internal, GF, Laundry, Floor Covering, Various Throughout, Vinyl Floor Tiles (khaki green with white specs) - Chrysotile Asbestos Detected



Line ID 21.1: Internal, GF, Laundry, Floor Covering, Various Throughout, Vinyl Floor Tiles (khaki green with white specs) - Chrysotile Asbestos Detected



Line ID 22: Internal, GF, Laundry, High Level Surfaces, Throughout, Dust - No Asbestos Detected



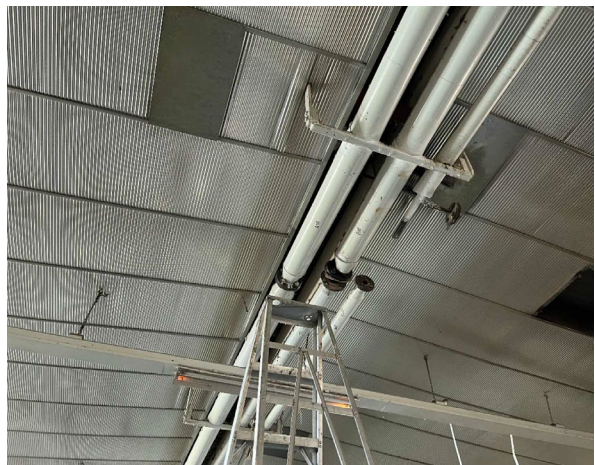
Line ID 23: Internal, GF, Laundry, Pipework, Central, Gasket Material - Chrysotile Asbestos Detected



Line ID 23.1: Internal, GF, Laundry, Pipework, Central, Gasket Material - Chrysotile Asbestos Detected



Line ID 24: Internal, GF, Laundry, Pipework, Central, Gasket Material - Chrysotile Asbestos Detected



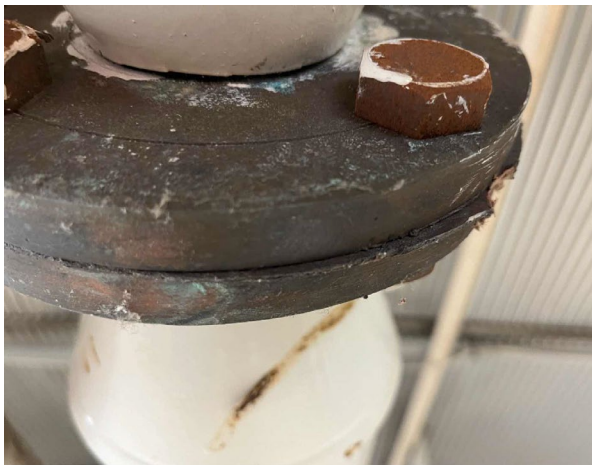
Line ID 24.1: Internal, GF, Laundry, Pipework, Central, Gasket Material - Chrysotile Asbestos Detected



Line ID 25: Internal, GF, Laundry, Pipework, North East, Gasket Material - Chrysotile Asbestos Detected



Line ID 26: Internal, GF, Laundry, Pipework, Southwest, Gasket Material - Chrysotile Asbestos Detected



Line ID 26.1: Internal, GF, Laundry, Pipework, Southwest, Gasket Material - Chrysotile Asbestos Detected



Line ID 27: Internal, GF, Laundry, Pipework, Throughout, Lagging - Amosite Asbestos Detected



Line ID 27.1: Internal, GF, Laundry, Pipework, Throughout, Lagging - Amosite Asbestos Detected



Line ID 28: Internal, GF, Linen Loading Dock, Wall lining, Southeast, Fibre Cement Sheetting - No Asbestos Detected



Line ID 29: Internal, GF, Main Switchboard Room, Electrical Distribution Board 1, Internal Electrical Components - Suspected Asbestos



Line ID 30: Internal, GF, Main Switchboard Room, Electrical Distribution Board 1, Central, Compressed Bituminous Panel - Suspected Asbestos



Line ID 31: Internal, GF, Main Workshop Area, Ceiling Space, All Surfaces, Throughout, Dust - No Asbestos Detected



Line ID 32: Internal, GF, Main Workshop Area, Ceiling Space, Central, Lagging (metal encased material) - Suspected Asbestos



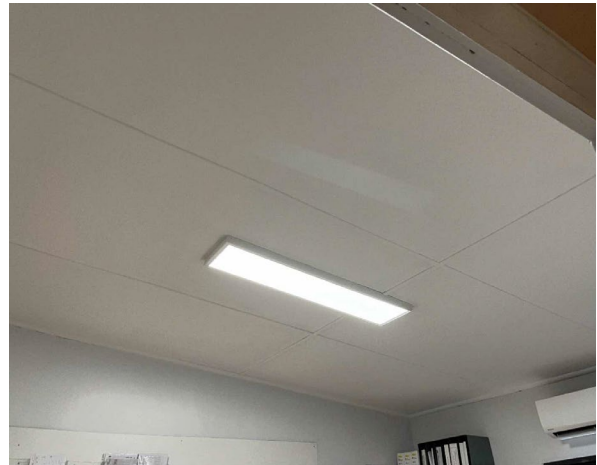
Line ID 32.1: Internal, GF, Main Workshop Area, Ceiling Space, Central, Lagging (metal encased material) - Suspected Asbestos



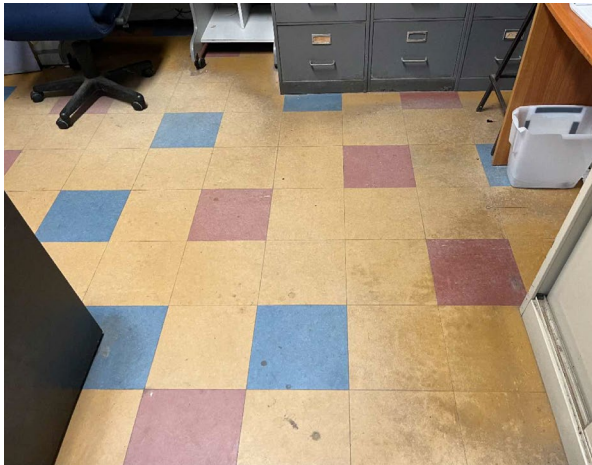
Line ID 33: Internal, GF, Main Workshop Area, Entrance Adjacent Toilet, Wall Lining, Fibre Cement Sheetting - No Asbestos Detected



Line ID 33.1: Internal, GF, Main Workshop Area, Entrance Adjacent Toilet, Wall Lining, Fibre Cement Sheetting - No Asbestos Detected



Line ID 34: Internal, GF, Maintenance Office, Ceiling Lining, Throughout, Fibre Cement Sheetting - Chrysotile and Amosite Asbestos Detected



Line ID 35: Internal, GF, Maintenance Office, Floor Covering, Throughout, Vinyl Floor Tiles (yellow) - Chrysotile Asbestos Detected



Line ID 36: Internal, GF, Maintenance Office, Floor Covering, Various Throughout, Vinyl Floor Tiles (red) - Chrysotile Asbestos Detected



Line ID 37: Internal, GF, Maintenance Office, Floor Covering, Various Throughout, Vinyl Floor Tiles (blue) - Chrysotile Asbestos Detected



Line ID 38: Internal, GF, Painters Shop, Ceiling Space, Throughout, Dust - No Asbestos Detected



Line ID 39: Internal, GF, Painters Shop, Pipework Penetration, Northeast Adjacent Generator, Lagging - Amosite Asbestos Detected



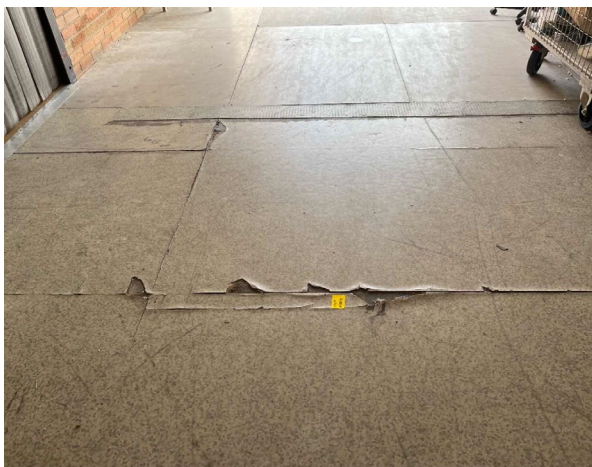
Line ID 39.1: Internal, GF, Painters Shop, Pipework Penetration, Northeast Adjacent Generator, Lagging - Amosite Asbestos Detected



Line ID 40: Internal, GF, Palliative Care Storage Loading Dock, Ceiling lining, Throughout, Fibre Cement Sheeting - No Asbestos Detected



Line ID 41: Internal, GF, Palliative Care Storage Loading Dock, Floor Covering, Throughout, Vinyl Sheet (white) - No Asbestos Detected



Line ID 41.1: Internal, GF, Palliative Care Storage Loading Dock, Floor Covering, Throughout, Vinyl Sheet (white) - No Asbestos Detected



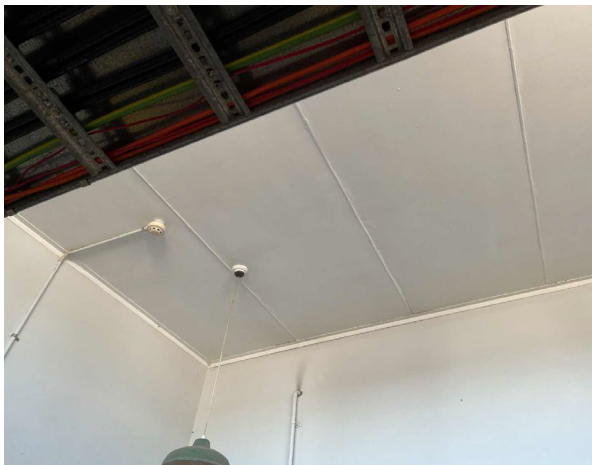
Line ID 42: Internal, GF, Palliative Care Storage Loading Dock, Floor Covering, Throughout, Compressed Cement Sheeting - No Asbestos Detected



Line ID 43: Internal, GF, Palliative Care Storage Loading Dock, Wall lining, Throughout, Fibre Cement Sheetting - No Asbestos Detected



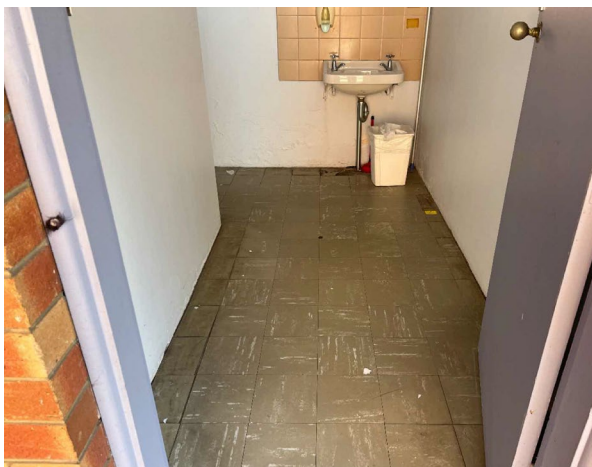
Line ID 44: Internal, GF, Room 1021 & 1022, Ceiling Lining, Throughout, Fibre Cement Sheetting - Chrysotile and Amosite Asbestos Detected



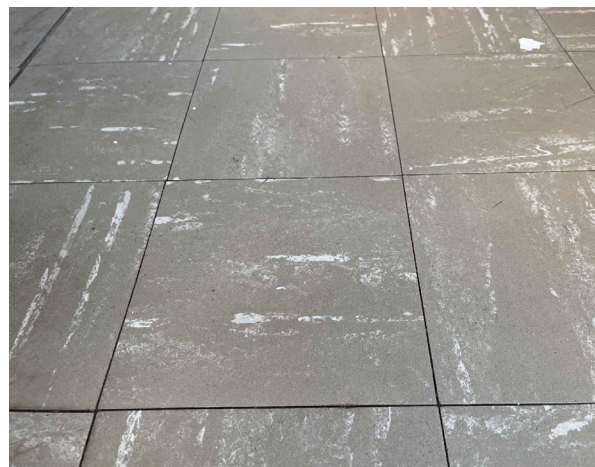
Line ID 44.1: Internal, GF, Room 1021 & 1022, Ceiling Lining, Throughout, Fibre Cement Sheetting - Chrysotile and Amosite Asbestos Detected



Line ID 45: Internal, GF, Room 1032, Toilet, Ceiling, Throughout, Fibre Cement Sheet - Chrysotile and Amosite Asbestos Detected



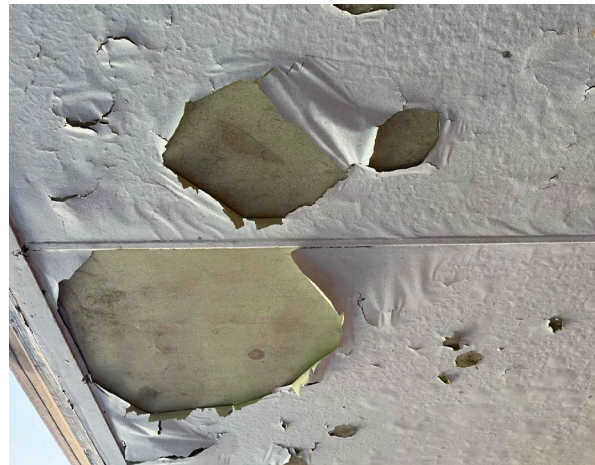
Line ID 46: Internal, GF, Room 1032, Toilet, Floor Covering, Throughout, Vinyl Floor Tiles (grey with white specs) - Chrysotile Asbestos Detected



Line ID 46.1: Internal, GF, Room 1032, Toilet, Floor Covering, Throughout, Vinyl Floor Tiles (grey with white specs) - Chrysotile Asbestos Detected



Line ID 47: Internal, GF, Room 1034, Storage, Packer/Ceiling Lining, South West, Fibre Cement Sheetting - Chrysotile and Amosite Asbestos Detected



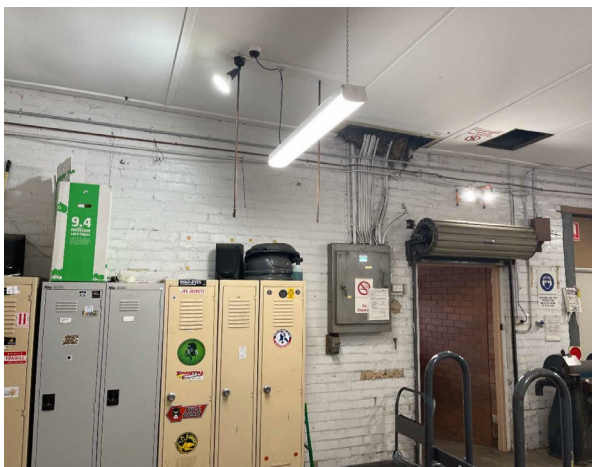
Line ID 48: External, GF, All Areas, Ceiling lining, Adjacent Clinical Information Department Entrance, White Paint - Lead Detected (0.14% w/w)



Line ID 48.1: External, GF, All Areas, Ceiling lining, Adjacent Clinical Information Department Entrance, White Paint - Lead Detected (0.14% w/w)



Line ID 49: External, GF, All Areas, Door & Frames, Throughout, Purple (Light) Paint - Lead Detected (0.04% w/w)



Line ID 51: Internal, GF, All Areas, Wall Lining, Throughout, White Paint - Lead Detected (0.04% w/w)



Line ID 52: Internal, GF, Painters Shop, Wall Lining, Throughout, White Paint - Lead Detected (0.04% w/w)



Line ID 53: Internal, GF, Room 1032, Toilet, Wall lining, Throughout, White Paint - Lead Detected (<0.005% w/w)



Line ID 53.1: Internal, GF, Room 1032, Toilet, Wall lining, Throughout, White Paint - Lead Detected (<0.005% w/w)



Line ID 54: Internal, GF, All Areas, Laundry, High Level Surfaces, Throughout, Dust - Lead Detected (270 mg/kg)



Line ID 55: Internal, GF, Painters Shop, Ceiling Space, Throughout, Dust - Lead Detected (220mg/kg)



Line ID 57: Internal, GF, 1044, Painters Room, Ceiling Space, Insulation Batts - Suspected SMF



Line ID 58: Internal, GF, 1044, Painters Room, Ceiling Space, Pipework, Insulation Material - Suspected SMF



Line ID 59: Internal, GF, 1044, Painters Room, Ceiling Space, Sarking, Insulation Material - Suspected SMF



Line ID 60: Internal, GF, Kitchen, Hot Water Heater, Above Sink, Internal Insulation Material - Suspected SMF



Line ID 61: Internal, GF, Kitchenette, Hot Water Heater, Adjacent Entry, Internal Insulation Material - Suspected SMF



Line ID 62: Internal, GF, Laundry, Insulation Batts, On Top of Office Ceiling, Insulation Material - Suspected SMF



Line ID 64: Internal, GF, Main Workshop Area, Ceiling Space, Pipework, Central, Insulation Material - Suspected SMF



Line ID 65: Internal, GF, Main Workshop Area, Pillow Insulation, Cable Penetration, East, Insulation Material - Suspected SMF



Line ID 68: Internal, GF, Room 1034, Storage, Sarking, Roof Lining, Insulation Material - Suspected SMF



Line ID 69: Internal, GF, Laundry, Fluorescent Light Fitting, Throughout, Capacitor(s) - Suspected PCB



Line ID 70: Internal, GF, Painters Shop, Ceiling Space, Stored Item, Fluorescent Light Fitting, Capacitor(s) - Suspected PCB



Line ID 71: External, GF, All Areas, Air conditioner, Various throughout, Unknown Refrigerant - Non ODS Refrigerant



Line ID 72: External, GF, Roof, Air Conditioning Unit, Central, R404A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 73: Internal, GF, Kitchen, Air Conditioner, Adjacent Sink, Unknown Refrigerant - Non ODS Refrigerant

Appendix D: Risk Assessment

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Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

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Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC, 1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

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Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

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Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.

NSW Health Infrastructure c/o Turner & Townsend
Asbestos and Hazardous Materials Pre-Demolition Assessment
Pink Lady Volunteer Services and Dangerous Goods Buildings

Cessnock Hospital

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Appendices

Appendix A: Asbestos and Hazardous Materials Register

Appendix B: Laboratory Analysis Certificate

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Appendix D: Risk Assessment

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Appendix F: Methodology

Appendix G: Statement of Limitations

Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Pink Lady Volunteer Services and Dangerous Goods Buildings located at Cessnock Hospital, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Pink Lady Volunteer Services and Dangerous Goods Buildings	✓	✓	✓	-	-	-	-

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Pink Lady Volunteer Services and Dangerous Goods Buildings located at Cessnock Hospital, Cessnock NSW 2325 (the site). Sam Crofts of Tetra Tech conducted the assessment on the 02/07/2024.

Note: The buildings were occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the buildings have been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of the Pink Lady Volunteer Services and Dangerous Goods buildings located at Cessnock Hospital, Cessnock NSW 2325 (the site).

Table 1: Site Information	
Site:	Pink Lady Volunteer Services and Dangerous Goods Buildings, Cessnock Hospital, Cessnock NSW 2325
Age (Circa):	1950
Site Description:	Hospital office and service buildings

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
External / GF / Subfloor Entrance / Pipework Lagging, Throughout	Lagging Debris	High
External / GF / Subfloor Entrance / Pipework Lagging, Throughout	Lagging	Medium
Internal / GF / Dining/Laundry / Floor Covering, Various Throughout	Vinyl Floor Tiles	Low
External / GF / All Areas / Infill Panels, Below Windows	Fibre Cement Sheet	Low
External / GF / Dangerous Goods Store / North and South, Eaves	Fibre Cement Sheeting	Low
External / GF / Dangerous Goods Store / West, Fascia	Fibre Cement Sheeting	Low
External / GF / Front Entrance / Infill Panel, Above Door 1001	Fibre Cement Sheet	Low
External / GF / Front Entrance / Verandah, Awning	Fibre Cement Sheet	Low
Internal / GF / Dining/Laundry / Infill panel, Below Window	Fibre Cement Sheet	Low
Internal / GF / Document Storage Area / Floor Covering, Various Throughout	Vinyl Floor Tiles	Low
Internal / GF / Room 1004 / Manhole hatch cover	Fibre cement sheeting	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
External / GF / All Areas / Roof & Metal Work, Throughout	Brown Paint	Low
External / GF / All Areas / Windows & frames, Throughout	Blue (Light) Paint	Low
External / GF / Dangerous Goods Store / Sliding Door	Purple Paint	Low
Internal / GF / All Areas / Windows & frames, Throughout	White Paint	Low

Internal / GF / Document Storage Area / Wall lining, Throughout	Cream Paint	Very Low
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2.1.3. Lead Containing Dust

No suspect lead containing dust identified at the time of the assessment.

2.1.4. Synthetic Mineral Fibres

No suspect SMF containing materials identified at the time of the assessment.

2.1.5. Polychlorinated Biphenyls

No suspect PCB containing capacitors identified at the time of the assessment.

2.1.6. Ozone Depleting Substances

No suspect ODS's identified at the time of the assessment.

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout.
- Areas outside the scope of assessment.
- Ceiling space – labelled as confined space.
- Sub-floor – labelled as confined space.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Ceiling voids;
- Wall voids;
- Below floors;
- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;

- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.
- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.
- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.
- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.

- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.
- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Lead Based Paint

- Any works that are likely to disturb lead based paint surface should be undertaken in accordance with the Australian Standard (AS4361.2:2017), Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings.
- Prior to any disturbance of lead based paint a comprehensive risk assessment is to be conducted.
- Any loose and peeling lead based paint should be stabilised (using hand-held scrapers, drop cloths and wet misting where appropriate) and the paint chips disposed of as hazardous waste.
- Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor).

3.3. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / 1006 Entrance / Ceiling Lining, Throughout	Fibre Cement Sheeting	Asbestos	A27988	No Asbestos Detected	-	4 m²	-	-	-	-	1
External	GF / All Areas / Infill Panels, Below Windows	Fibre Cement Sheet	Asbestos	A10583.3	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	2 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	2
External	GF / All Areas / Windows, Throughout	Window Caulking	Asbestos	A27994	No Asbestos Detected	-	20 m	-	-	-	-	3
External	GF / Dangerous Goods Store / North and South, Eaves	Fibre Cement Sheeting	Asbestos	A10583.1	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	5 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	4
External	GF / Dangerous Goods Store / West, Fascia	Fibre Cement Sheeting	Asbestos	A10583	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	3 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	5

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Front Entrance / Infill Panel, Above Door 1001	Fibre Cement Sheet	Asbestos	A10583.4	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	1 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	6
External	GF / Front Entrance / Verandah, Awning	Fibre Cement Sheet	Asbestos	A10583.2	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	25 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	7
External	GF / Subfloor Entrance / New Style Sheet Vinyl, Various Throughout	Debris	Asbestos	A27992	No Asbestos Detected	Non-Friable	40 m²	-	-	-	-	8
External	GF / Subfloor Entrance / Pipework Lagging, Throughout	Lagging	Asbestos	A27993	Amosite Asbestos Detected	Friable	40 m	Fair	Medium	Prior to refurbishment or demolition	Restrict access and isolate area. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	9
External	GF / Subfloor Entrance / Pipework Lagging, Throughout	Lagging Debris	Asbestos	A27993.1	Amosite Asbestos Detected	Friable	40 m²	Poor	High	Prior to refurbishment or demolition	Restrict access and isolate area. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in	10

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
External	GF / Verandah to Laundry / Ceiling Lining, Adjacent Toilet	Fibre Cement Sheet	Asbestos	A27991	No Asbestos Detected	-	4 m²	-	-	-	-	11
Internal	GF / Dining/Laundry / Floor covering, Adjacent Entrance	Sheet Vinyl (grey)	Asbestos	A27990	No Asbestos Detected	-	10 m²	-	-	-	-	12
Internal	GF / Dining/Laundry / Floor covering, Throughout	Sheet Vinyl (green)	Asbestos	A27989	No Asbestos Detected	-	16 m²	-	-	-	-	13
Internal	GF / Dining/Laundry / Floor Covering, Various Throughout	Vinyl Floor Tiles	Asbestos	Previously Sampled KT03.2	Chrysotile Asbestos Detected	Non-Friable	6 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	14
Internal	GF / Dining/Laundry / Infill panel, Below Window	Fibre Cement Sheet	Asbestos	A10583.5	Chrysotile Asbestos Detected	Non-Friable	1 m²	Stable	Low	Prior to refurbishment or demolition	KT01 - FCS sample number - waiting to see if i should update it or presume as positive. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	15

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Document Storage Area / Floor covering, Adjacent entrance	Sheet Vinyl (grey)	Asbestos	A27990.1	No Asbestos Detected	-	25 m²	-	-	-	-	16
Internal	GF / Document Storage Area / Floor covering, Throughout Entry	Sheet Vinyl (brown)	Asbestos	A27987	No Asbestos Detected	-	14 m²	-	-	-	-	17
Internal	GF / Document Storage Area / Floor Covering, Various Throughout	Vinyl Floor Tiles	Asbestos	Previously Sampled KT03.1	Chrysotile Asbestos Detected	Non-Friable	2 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	18
Internal	GF / Room 1004 / Manhole hatch cover	Fibre cement sheeting	Asbestos	Previously Sampled KT01.1	Chrysotile Asbestos Detected	Non-Friable	0.5 m2	-	Low	Prior to refurbishment or demolition.	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	19
External	GF / All Areas / Roof & Metal Work, Throughout	Brown Paint	Lead Paint	L22320	Lead Detected (0.29% w/w)	-	100 m²	Fair	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition	20

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											works. Conduct a risk assessment to determine the level of remediation controls required.	
External	GF / All Areas / Windows & frames, Throughout	Blue (Light) Paint	Lead Paint	L22321	Lead Detected (2.4% w/w)	-	40 m²	Poor	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	21
External	GF / Dangerous Goods Store / Sliding Door	Purple Paint	Lead Paint	L18416	Lead Detected (3.4% w/w)	-	5 m²	Stable	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	22
Internal	GF / All Areas / Windows & frames, Throughout	White Paint	Lead Paint	L22332	Lead Detected (0.34% w/w)	-	25 m²	Stable	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	23

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Document Storage Area / Wall lining, Throughout	Cream Paint	Lead Paint	L22333	Lead Detected (0.24% w/w)	-	60 m²	Stable	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	24
External	GF / Subfloor	-	No Access	-	-	-	-	-	-	-	Labelled as confined space. Visually inspected from access hatch only. No access to all areas of subfloor. No or limited access potential hazardous materials present within inaccessible areas	25
Internal	GF / Ceiling Space	-	No Access	-	-	-	-	-	-	-	Labelled as confined space. No or limited access potential hazardous materials present within inaccessible areas	26

Appendix B: Laboratory Analysis Certificate

Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital Pink Lady Volunteer & Dangerous Goods 16072024
Client: NSW Health Infrastructure
Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma
E-mail: Les.Palma@turntown.com
Date Sampled: 02-07-2024
Date Analysed: 16-07-2024
Date Authorised: 18-07-2024
Sampled By: Ben McCann
Site: Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
 Accreditation No:2220
 Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Asbestos in Bulk Samples and Non-homogenous Material

Test Method: Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 9

Approved Identifier
 Matthew Tang

Approved Signatory
 Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A10583	External, GF, Dangerous Goods Store, West, Fascia, Fibre Cement Sheeting - White painted grey compressed fibre cement sheet material	37 x 10 x 5 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Crocidolite (blue asbestos) detected
A27987	Internal, GF, Document Storage Area, Floor covering, Throughout entry, Sheet Vinyl (brown) - Beige vinyl sheet material & amber adhesive with attached organic matted material	62 x 55 x 4 mm	No asbestos fibres detected Organic fibres detected
A27988	External, GF, 1006 Entrance, Ceiling Lining, Throughout, Fibre Cement Sheeting - Beige fibre cement sheet material	11 x 9 x 3 mm	No asbestos fibres detected Organic fibres detected
A27989	Internal, GF, Dining/Laundry, Floor covering, Throughout, Sheet Vinyl (green) - Green vinyl sheet material & amber adhesive	74 x 62 x 3 mm	No asbestos fibres detected
A27990	Internal, GF, Dining/Laundry, Floor covering, Adjacent entrance, Sheet Vinyl (grey) - Grey vinyl sheet material & amber adhesive	70 x 64 x 3 mm	No asbestos fibres detected
A27991	External, GF, Verandah To Laundry, Ceiling lining, Adjacent toilet, Fibre Cement Sheet - Cream painted beige fibre cement sheet material	16 x 14 x 3 mm	No asbestos fibres detected Organic fibres detected
A27992	External, GF, Subfloor, New style sheet vinyl, Various throughout, Debris - Grey vinyl sheet & amber adhesive	59 x 42 x 3 mm	No asbestos fibres detected
A27993	External, GF, Subfloor, Pipework Lagging, Throughout, Lagging - White loose fibrous insulation material	22 x 18 x 2 mm	Amosite (brown asbestos) detected

Sample No.	Location & Description	Sample Size (~)	Results
A27994	External, GF, All Areas, Windows, Throughout, Window Caulking - White painted beige hardened mastic material	55 x 20 x 8 mm	No asbestos fibres detected

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CERTIFICATE OF ANALYSIS 356691

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN347071-1 Cessnock Hospital Survey</u>
Number of Samples	5 Paint
Date samples received	16/07/2024
Date completed instructions received	16/07/2024

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 solids and on an as received basis for other matrices.

Report Details

Date results requested by	22/07/2024
Date of Issue	22/07/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager

Authorised By

Nancy Zhang, Laboratory Manager

Client Reference: 754-NTLEN347071-1 Cessnock Hospital Survey

Lead in Paint						
Our Reference		356691-1	356691-2	356691-3	356691-4	356691-5
Your Reference	UNITS	L22320	L22321	L22332	L22333	L18416
Date Sampled		02/07/2024	02/07/2024	02/07/2024	02/07/2024	02/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024	17/07/2024	10/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024	18/07/2024	10/07/2024
Lead in paint	%w/w	0.29	2.4	0.34	0.24	3.2

Method ID	Methodology Summary
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 754-NTLEN347071-1 Cessnock Hospital Survey

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			17/07/2024	2	17/07/2024	17/07/2024		17/07/2024	[NT]
Date analysed	-			18/07/2024	2	18/07/2024	18/07/2024		18/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	2	2.4	2.0	18	101	[NT]

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	5	10/07/2024	10/07/2024		[NT]	[NT]
Date analysed	-			[NT]	5	10/07/2024	10/07/2024		[NT]	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	[NT]	5	3.2	2.8	13	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

**AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD**

ABN 36 088 095 112

Our ref: ASET63880 / 67060 / 1 - 6
Your ref: 17.1634 - Records and Mortuary and Kitchen
NATA Accreditation No: 14484

18 April 2018

Practical Environmental Solutions
PO Box 167
Mayfield NSW 2304

Attn: Mr Tony Milligan



Accredited for compliance with ISO/IEC 17025

Dear Tony

Asbestos Identification

This report presents the results of six samples, forwarded by Practical Environmental Solutions on 18 April 2018, for analysis for asbestos.

1. Introduction: Six samples forwarded were examined and analysed for the presence of asbestos.

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).

3. Results: **Sample No. 1. ASET63880 / 67060 / 1. KT01 - FFCS Eaves soffit to western aspect.**
Approx dimensions 0.75 cm x 0.45 cm x 0.15 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
Chrysotile asbestos detected.

Sample No. 2. ASET63880 / 67060 / 2. KT02 - Vermiculite spray to cafeteria ceiling.
Approx dimensions 3.5 cm x 2.0 cm x 0.3 cm
The sample consisted of fragments of a soft plaster material containing vermiculite like material.
No asbestos detected.

Sample No. 3. ASET63880 / 67060 / 3. KT03 - Cream VFTs to Cafeteria floor.
Approx dimensions 7.0 cm x 4.5 cm x 0.2 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 4. ASET63880 / 67060 / 4. KT04 - SE Verandah infill panels (Cladding).
Approx dimensions 0.35 cm x 0.25 cm x 0.1 cm
The sample consisted of a fragment of a fibre cement material.
Chrysotile asbestos detected.

Sample No. 5. ASET63880 / 67060 / 5. KT05 - Brown VFTs to Cafeteria.
Approx dimensions 6.1 cm x 4.2 cm x 0.2 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.



Sample No. 6. ASET63880 / 67060 / 6. KT06 - Broadsheet vinyl floor covering.
Approx dimensions 8.0 cm x 5.0 cm x 0.2 cm
The sample consisted of a fragment of a vinyl floor tile.
No asbestos detected (An independent confirmatory analytical technique is advised due to the nature of the sample).

Analysed and reported by,



Chamath Annaldage, BSc
Analyst / Approved Identifier



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



Accredited for compliance with ISO/IEC 17025.

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 AS4964-2004. Trace / respirable level asbestos will be reported only when detected.

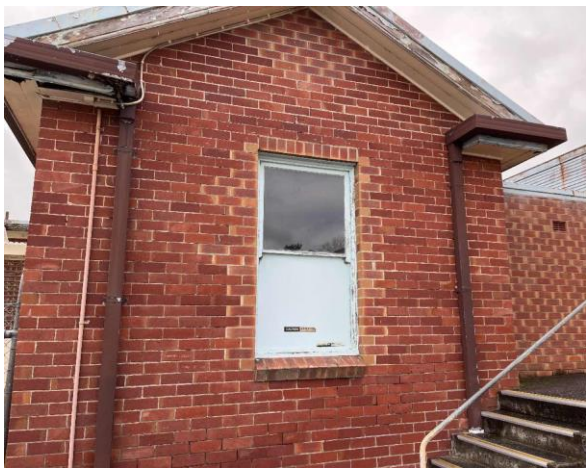
Appendix C: Photographs



Line ID 1: External, GF, 1006 Entrance, Ceiling Lining, Throughout, Fibre Cement Sheet - No Asbestos Detected



Line ID 2: External, GF, All Areas, Infill Panels, Below Windows, Fibre Cement Sheet - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 2.1: External, GF, All Areas, Infill Panels, Below Windows, Fibre Cement Sheet - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 2.2: External, GF, All Areas, Infill Panels, Below Windows, Fibre Cement Sheet - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 3: External, GF, All Areas, Windows, Throughout, Window Caulking - No Asbestos Detected



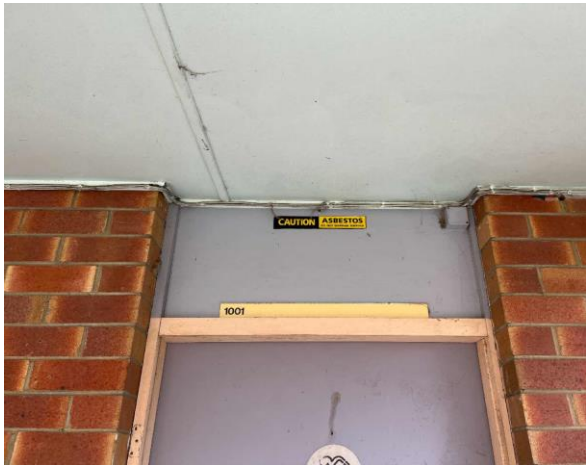
Line ID 3.1: External, GF, All Areas, Windows, Throughout, Window Caulking - No Asbestos Detected



Line ID 4: External, GF, Dangerous Goods Store, North and South, Eaves, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 5: External, GF, Dangerous Goods Store, West, Fascia, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 6: External, GF, Front Entrance, Infill Panel, Above Door 1001, Fibre Cement Sheet - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 7: External, GF, Front Entrance, Verandah, Awning, Fibre Cement Sheet - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 8: External, GF, Subfloor Entrance, New Style Sheet Vinyl, Various Throughout, Debris - No Asbestos Detected



Line ID 9: External, GF, Subfloor Entrance, Pipework Lagging, Throughout, Lagging - Amosite Asbestos Detected



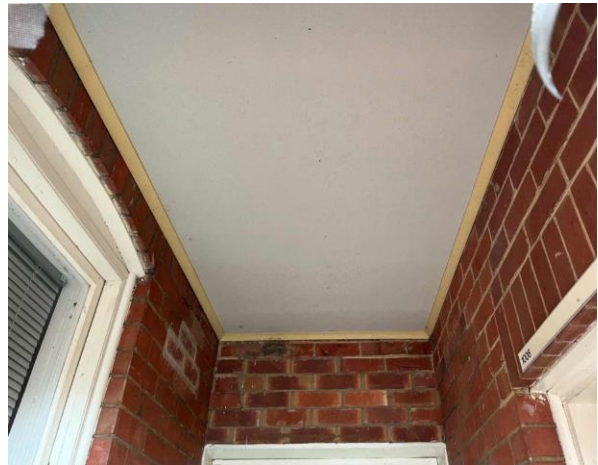
Line ID 9.1: External, GF, Subfloor Entrance, Pipework Lagging, Throughout, Lagging - Amosite Asbestos Detected



Line ID 10: External, GF, Subfloor Entrance, Pipework Lagging, Throughout, Lagging Debris - Amosite Asbestos Detected



Line ID 10.1: External, GF, Subfloor Entrance, Pipework Lagging, Throughout, Lagging Debris - Amosite Asbestos Detected



Line ID 11: External, GF, Verandah to Laundry, Ceiling Lining, Adjacent Toilet, Fibre Cement Sheet - No Asbestos Detected



Line ID 12: Internal, GF, Dining/Laundry, Floor covering, Adjacent Entrance, Sheet Vinyl (grey) - No Asbestos Detected



Line ID 13: Internal, GF, Dining/Laundry, Floor covering, Throughout, Sheet Vinyl (green) - No Asbestos Detected



Line ID 14: Internal, GF, Dining/Laundry, Floor Covering, Various Throughout, Vinyl Floor Tiles - Chrysotile Asbestos Detected



Line ID 14.1: Internal, GF, Dining/Laundry, Floor Covering, Various Throughout, Vinyl Floor Tiles - Chrysotile Asbestos Detected



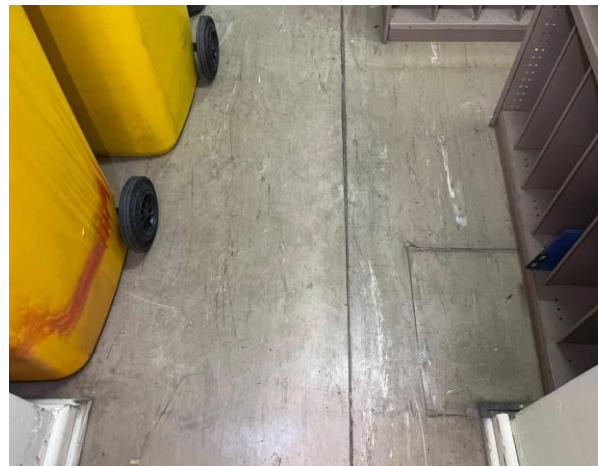
Line ID 15: Internal, GF, Dining/Laundry, Infill panel, Below Window, Fibre Cement Sheet - Chrysotile Asbestos Detected



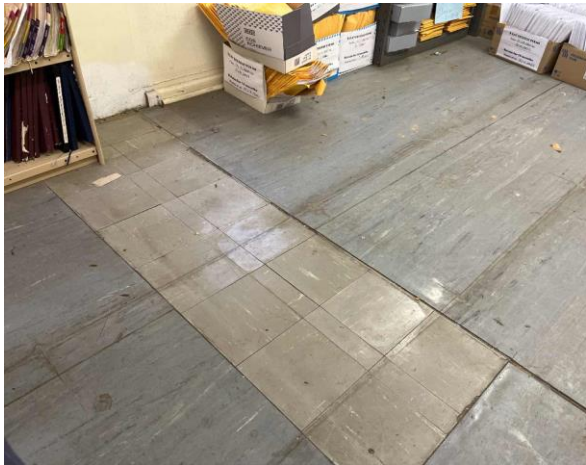
Line ID 16: Internal, GF, Document Storage Area, Floor covering, Adjacent entrance, Sheet Vinyl (grey) - No Asbestos Detected



Line ID 17: Internal, GF, Document Storage Area, Floor covering, Throughout Entry, Sheet Vinyl (brown) - No Asbestos Detected



Line ID 17.1: Internal, GF, Document Storage Area, Floor covering, Throughout Entry, Sheet Vinyl (brown) - No Asbestos Detected



Line ID 18: Internal, GF, Document Storage Area, Floor Covering, Various Throughout, Vinyl Floor Tiles - Chrysotile Asbestos Detected



Line ID 20: External, GF, All Areas, Roof & Metal Work, Throughout, Brown Paint - Lead Detected (0.29% w/w)



Line ID 20.1: External, GF, All Areas, Roof & Metal Work, Throughout, Brown Paint - Lead Detected (0.29% w/w)



Line ID 21: External, GF, All Areas, Windows & frames, Throughout, Blue (Light) Paint - Lead Detected (2.4% w/w)



Line ID 21.1: External, GF, All Areas, Windows & frames, Throughout, Blue (Light) Paint - Lead Detected (2.4% w/w)



Line ID 22: External, GF, Dangerous Goods Store, Sliding Door, Purple Paint - Lead Detected (3.4% w/w)



Line ID 23: Internal, GF, All Areas, Windows & frames, Throughout, White Paint - Lead Detected (0.34% w/w)



Line ID 24: Internal, GF, Document Storage Area, Wall lining, Throughout, Cream Paint - Lead Detected (0.24% w/w)

Appendix D: Risk Assessment

Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC,1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.

NSW Health Infrastructure c/o Turner & Townsend

Asbestos and Hazardous Materials Pre-Demolition Assessment

Storeroom & Mortuary

Cessnock Hospital

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Appendices

Appendix A: Asbestos and Hazardous Materials Register

Appendix B: Laboratory Analysis Certificate

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Appendix F: Methodology

Appendix G: Statement of Limitations

Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Storeroom & Mortuary buildings located at Cessnock Hospital, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Storeroom & Mortuary	✓	✓	✓	-	✓	-	-

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Storeroom & Mortuary buildings located at Cessnock Hospital, Cessnock NSW 2325 (the site). Sam Crofts of Tetra Tech conducted the assessment on the 04/07/2024.

Note: The building was occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the building has been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of the Storeroom & Mortuary located at Cessnock Hospital, Cessnock NSW 2325 (the site).

Table 1: Site Information

Site:	Storeroom & Mortuary, Cessnock Hospital, Cessnock NSW 2325
Age (Circa):	1960's
Site Description:	Storeroom & Mortuary hospital buildings

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
Internal / GF / Storeroom Ceiling Space / Pipework, Throughout	Lagging	Medium
Internal / GF / Storeroom / Main Foyer & Offices, Throughout	Vinyl Floor Tiles (cream with white specs)	Low
Internal / GF / Storeroom / Main foyer & Offices, Various Throughout	Vinyl Floor Tiles (green)	Low
Internal / GF / Storeroom / Main Foyer & Offices, Various Throughout	Vinyl Floor Tiles (red)	Low
External / GF / Mortuary, All Areas / Awning, Entrance	Fibre Cement Sheeting	Low
External / GF / Mortuary, All Areas / Gable End, North & South	Profiled Fibre Cement Sheeting	Low
External / GF / Storeroom Driveway / Electrical Distribution Board, Northern Boundary	Compressed Bituminous Panel	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
External / GF / Storeroom Driveway / Metal Works, Various Throughout	Blue (Light) Paint	Low
Internal / GF / Storeroom / Windows & Frames, Various Throughout	White Paint	Low
External / GF / Mortuary, All Areas / Door & Frames, Throughout	Pink (Light) Paint	Very Low
External / GF / Mortuary, All Areas / Timber Works, Adjacent Entrance	Blue (Light) Paint	Very Low

2.1.3. Lead Containing Dust

No suspect lead containing dust identified at the time of the assessment.

2.1.4. Synthetic Mineral Fibres

Location	Material Description	Risk Rating
Internal / GF / Storeroom Ceiling Space / On Top of Ceiling, Throughout	Dust	Low
Internal / GF / Storeroom Ceiling Space / Roof Lining	Sarking Insulation	Very Low
Internal / GF / Storeroom Ceiling Space / Throughout	Insulation Batts	Very Low

2.1.5. Polychlorinated Biphenyls

No suspect PCB containing capacitors identified at the time of the assessment.

2.1.6. Ozone Depleting Substances

No suspect ODS's identified at the time of the assessment.

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout.
- Areas outside the scope of assessment.
- Sub-floor.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Ceiling space – limited access from access hatch;
- Wall voids;
- Below floors;
- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;
- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.
- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.
- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.
- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.
- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.

- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Lead Based Paint

- Any works that are likely to disturb lead based paint surface should be undertaken in accordance with the Australian Standard (AS4361.2:2017), Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings.
- Prior to any disturbance of lead based paint a comprehensive risk assessment is to be conducted.
- Any loose and peeling lead based paint should be stabilised (using hand-held scrapers, drop cloths and wet misting where appropriate) and the paint chips disposed of as hazardous waste.
- Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor).

3.3. Synthetic Mineral Fibres

- SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].

3.4. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

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Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Mortuary, All Areas / Awning, Entrance	Fibre Cement Sheeting	Asbestos	Previously Sampled KT01	Chrysotile Asbestos Detected	Non-Friable	30 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	1
External	GF / Mortuary, All Areas / Gable End, North & South	Profiled Fibre Cement Sheeting	Asbestos	A27967	Chrysotile and Amosite Asbestos Detected	Non-Friable	22 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	2
External	GF / Storeroom Driveway / Electrical Distribution Board, Northern Boundary	Compressed Bituminous Panel	Asbestos	754-NTLEN347071-1 Storeroom & Mortuary493A1	Suspected Asbestos	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Not sampled - Live electrical hazard Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	3
Internal	GF / Storeroom / Access Hatch, Central	Fibre Cement Sheeting	Asbestos	754-NTLEN347071-1 Storeroom & Mortuary493A2	No Asbestos Suspected	-	1 m²	-	-	-	Installed 2018. Suspected negative due to age and appearance.	4

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Storeroom / Main Foyer & Offices, Throughout	Vinyl Floor Tiles (cream with white specs)	Asbestos	A10600	Chrysotile Asbestos Detected	Non-Friable	60 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	5
Internal	GF / Storeroom / Main foyer & Offices, Various Throughout	Vinyl Floor Tiles (green)	Asbestos	A10601	Chrysotile Asbestos Detected	Non-Friable	6 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	6
Internal	GF / Storeroom / Main Foyer & Offices, Various Throughout	Vinyl Floor Tiles (red)	Asbestos	A10602	Chrysotile Asbestos Detected	Non-Friable	6 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	7
Internal	GF / Storeroom Ceiling Space / On Top of Ceiling, Throughout	Dust	Asbestos	A10604	No Asbestos Detected	-	200 m²	-	-	-		8
Internal	GF / Storeroom Ceiling Space / Pipework, Throughout	Lagging	Asbestos	A10603	Amosite Asbestos Detected	Friable	80 m	Fair	Medium	Prior to refurbishment or demolition	Restrict access and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant	9

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
External	GF / Mortuary, All Areas / Door & Frames, Throughout	Pink (Light) Paint	Lead Paint	L22339	Lead Detected (0.18% w/w)	-	20 m ²	Stable	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	10
External	GF / Mortuary, All Areas / Timber Work, Adjacent Entrance	Blue (Light) Paint	Lead Paint	L22338	Lead Detected (0.23% w/w)	-	20 m ²	Stable	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	11
External	GF / Storeroom Driveway / Metal Work, Various Throughout	Blue (Light) Paint	Lead Paint	L18420	Lead Detected (0.10% w/w)	-	10 m ²	Fair	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	12

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Storeroom / Wall Lining, Throughout	Cream Paint	Lead Paint	L18422	Lead Detected (0.03% w/w)	-	130 m ²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	13
Internal	GF / Storeroom / Windows & Frames, Various Throughout	White Paint	Lead Paint	L18421	Lead Detected (0.21% w/w)	-	30 m ²	Stable	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	14
Internal	GF / Storeroom Ceiling Space / On Top of Ceiling, Throughout	Dust	SMF	A10604.1	SMF Detected	-	200 m ²	-	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	15
Internal	GF / Storeroom Ceiling Space / Roof Lining	Sarking Insulation	SMF	754-NTLEN347071-1 Storeroom & Mortuary493S2	Suspected SMF	-	100 m ²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	16
Internal	GF / Storeroom Ceiling Space / Throughout	Insulation Batts	SMF	754-NTLEN347071-1 Storeroom & Mortuary493S1	Suspected SMF	-	120 m ²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	17

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital Storeroom & Mortuary 16072024
Client: NSW Health Infrastructure
Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma
E-mail: Les.Palma@turntown.com
Date Sampled: 04-07-2024
Date Analysed: 16-07-2024
Date Authorised: 18-07-2024
Sampled By: Ben McCann
Site: Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
 Accreditation No:2220
 Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Asbestos in Bulk Samples and Non-homogenous Material

Test Method: Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 6

Approved Identifier
 Matthew Tang

Approved Signatory
 Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A10600	Internal, GF, Storeroom, Main Foyer & Offices, Throughout, Vinyl Floor Tiles (cream with white specs) A. Beige vinyl tile B. Amber adhesive	94 x 55 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10601	Internal, GF, Storeroom, Main foyer & Offices, Various throughout, Vinyl Floor Tiles (green) A. Green vinyl tile B. Amber adhesive	54 x 41 x 4 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10602	Internal, GF, Storeroom, Main Foyer & Offices, Various throughout, Vinyl Floor Tiles (red) A. Red vinyl tile B. Amber adhesive	78 x 55 x 4 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10603	Internal, GF, Storeroom Ceiling space, Pipework, Throughout, Lagging - White loose fibrous insulation material	16 x 12 x 2 mm	Amosite (brown asbestos) detected
A10604	Internal, GF, Storeroom Ceiling space, On top of ceiling, Throughout, Dust - Brown non-homogeneous fibrous dust & debris	2.9 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004

Sample No.	Location & Description	Sample Size (~)	Results
A27967	External, GF, Mortuary, All Areas, Gable end, North & South, Moulded Fibre Cement - Cream painted grey compressed fibre cement sheet material	31 x 22 x 5 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected

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CERTIFICATE OF ANALYSIS 356689

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN34707-1, Cessnock Hospital Survey</u>
Number of Samples	5 Paint
Date samples received	16/07/2024
Date completed instructions received	16/07/2024

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 solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/07/2024
Date of Issue	19/07/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager

Authorised By

Nancy Zhang, Laboratory Manager

Client Reference: 754-NTLEN34707-1, Cessnock Hospital Survey

Lead in Paint						
Our Reference		356689-1	356689-2	356689-3	356689-4	356689-5
Your Reference	UNITS	L18420	L18421	L18422	L22338	L22339
Date Sampled		04/07/2024	04/07/2024	04/07/2024	04/07/2024	04/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024	18/07/2024	18/07/2024
Lead in paint	%w/w	0.10	0.21	0.03	0.23	0.18

Method ID	Methodology Summary
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 754-NTLEN34707-1, Cessnock Hospital Survey

QUALITY CONTROL: Lead in Paint						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			17/07/2024	[NT]	[NT]	[NT]	[NT]	17/07/2024	[NT]
Date analysed	-			18/07/2024	[NT]	[NT]	[NT]	[NT]	18/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	[NT]	[NT]	[NT]	[NT]	113	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

**AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD**

ABN 36 088 095 112

Our ref: ASET63880 / 67060 / 1 - 6
Your ref: 17.1634 - Records and Mortuary and Kitchen
NATA Accreditation No: 14484

18 April 2018

Practical Environmental Solutions
PO Box 167
Mayfield NSW 2304

Attn: Mr Tony Milligan



Accredited for compliance with ISO/IEC 17025

Dear Tony

Asbestos Identification

This report presents the results of six samples, forwarded by Practical Environmental Solutions on 18 April 2018, for analysis for asbestos.

1. Introduction: Six samples forwarded were examined and analysed for the presence of asbestos.

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).

3. Results: **Sample No. 1. ASET63880 / 67060 / 1. KT01 - FFCS Eaves soffit to western aspect.**
Approx dimensions 0.75 cm x 0.45 cm x 0.15 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
Chrysotile asbestos detected.

Sample No. 2. ASET63880 / 67060 / 2. KT02 - Vermiculite spray to cafeteria ceiling.
Approx dimensions 3.5 cm x 2.0 cm x 0.3 cm
The sample consisted of fragments of a soft plaster material containing vermiculite like material.
No asbestos detected.

Sample No. 3. ASET63880 / 67060 / 3. KT03 - Cream VFTs to Cafeteria floor.
Approx dimensions 7.0 cm x 4.5 cm x 0.2 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 4. ASET63880 / 67060 / 4. KT04 - SE Verandah infill panels (Cladding).
Approx dimensions 0.35 cm x 0.25 cm x 0.1 cm
The sample consisted of a fragment of a fibre cement material.
Chrysotile asbestos detected.

Sample No. 5. ASET63880 / 67060 / 5. KT05 - Brown VFTs to Cafeteria.
Approx dimensions 6.1 cm x 4.2 cm x 0.2 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.



Sample No. 6. ASET63880 / 67060 / 6. KT06 - Broadsheet vinyl floor covering.
Approx dimensions 8.0 cm x 5.0 cm x 0.2 cm
The sample consisted of a fragment of a vinyl floor tile
No asbestos detected (An independent confirmatory analytical technique is advised due to the nature of the sample).

Analysed and reported by,



Chamath Annaldage, BSc
Analyst / Approved Identifier



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



Accredited for compliance with ISO/IEC 17025.

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 AS4964-2004. Trace / respirable level asbestos will be reported only when detected.

Appendix C: Photographs

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Line ID 1: External, GF, Mortuary, All Areas, Awning, Entrance, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 1.1: External, GF, Mortuary, All Areas, Awning, Entrance, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 2: External, GF, Mortuary, All Areas, Gable End, North & South, Moulded Fibre Cement - Chrysotile and Amosite Asbestos Detected



Line ID 2.1: External, GF, Mortuary, All Areas, Gable End, North & South, Moulded Fibre Cement - Chrysotile and Amosite Asbestos Detected



Line ID 3: External, GF, Storeroom Driveway, Electrical Distribution Board, Northern Boundary, Compressed Bituminous Panel - Suspected Asbestos



Line ID 3.1: External, GF, Storeroom Driveway, Electrical Distribution Board, Northern Boundary, Compressed Bituminous Panel - Suspected Asbestos



Line ID 4: Internal, GF, Storeroom, Access Hatch, Central, Non-Suspect Material - No Asbestos Suspected



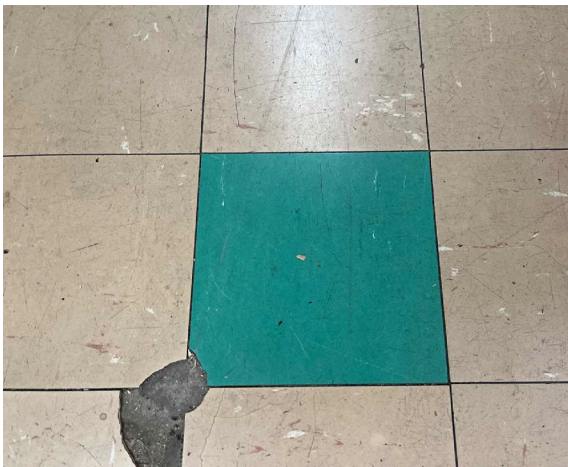
Line ID 5: Internal, GF, Storeroom, Main Foyer & Offices, Throughout, Vinyl Floor Tiles (cream with white specs) - Chrysotile Asbestos Detected



Line ID 5.1: Internal, GF, Storeroom, Main Foyer & Offices, Throughout, Vinyl Floor Tiles (cream with white specs) - Chrysotile Asbestos Detected



Line ID 6: Internal, GF, Storeroom, Main foyer & Offices, Various Throughout, Vinyl Floor Tiles (green) - Chrysotile Asbestos Detected



Line ID 6.1: Internal, GF, Storeroom, Main foyer & Offices, Various Throughout, Vinyl Floor Tiles (green) - Chrysotile Asbestos Detected



Line ID 7: Internal, GF, Storeroom, Main Foyer & Offices, Various Throughout, Vinyl Floor Tiles (red) - Chrysotile Asbestos Detected



Line ID 7.1: Internal, GF, Storeroom, Main Foyer & Offices, Various Throughout, Vinyl Floor Tiles (red) - Chrysotile Asbestos Detected



Line ID 8: Internal, GF, Storeroom Ceiling Space, On Top of Ceiling, Throughout, Dust - No Asbestos Detected



Line ID 9: Internal, GF, Storeroom Ceiling Space, Pipework, Throughout, Lagging - Amosite Asbestos Detected



Line ID 9.1: Internal, GF, Storeroom Ceiling Space, Pipework, Throughout, Lagging - Amosite Asbestos Detected



Line ID 10: External, GF, Mortuary, All Areas, Door & Frames, Throughout, Pink (Light) Paint - Lead Detected (0.18% w/w)



Line ID 10.1: External, GF, Mortuary, All Areas, Door & Frames, Throughout, Pink (Light) Paint - Lead Detected (0.18% w/w)



Line ID 11: External, GF, Mortuary, All Areas, Timber Works, Adjacent Entrance, Blue (Light) Paint - Lead Detected (0.23% w/w)



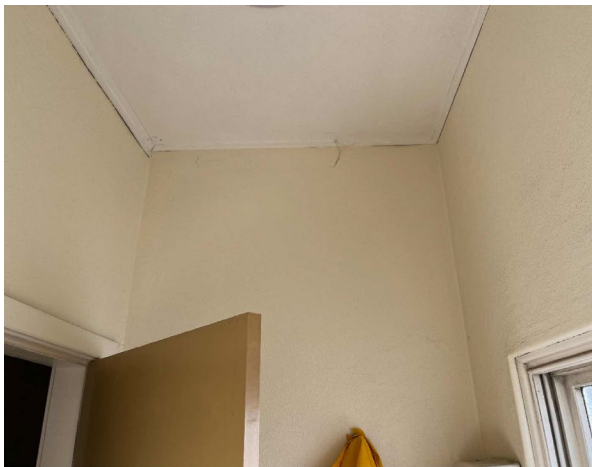
Line ID 11.1: External, GF, Mortuary, All Areas, Timber Works, Adjacent Entrance, Blue (Light) Paint - Lead Detected (0.23% w/w)



Line ID 12: External, GF, Storeroom Driveway, Metal Works, Various Throughout, Blue (Light) Paint - Lead Detected (0.10% w/w)



Line ID 12.1: External, GF, Storeroom Driveway, Metal Works, Various Throughout, Blue (Light) Paint - Lead Detected (0.10% w/w)



Line ID 13: Internal, GF, Storeroom, Wall Lining, Throughout, Cream Paint - Lead Detected (0.03% w/w)



Line ID 13.1: Internal, GF, Storeroom, Wall Lining, Throughout, Cream Paint - Lead Detected (0.03% w/w)



Line ID 14: Internal, GF, Storeroom, Windows & Frames, Various Throughout, White Paint - Lead Detected (0.21% w/w)



Line ID 16: Internal, GF, Storeroom Ceiling Space, Roof Lining, Sarking Insulation - Suspected SMF



Line ID 17: Internal, GF, Storeroom Ceiling Space, Throughout, Insulation Batts - Suspected SMF

Appendix D: Risk Assessment

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Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

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Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC,1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

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Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

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Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.

NSW Health Infrastructure c/o Turner & Townsend
Asbestos and Hazardous Materials Pre-Demolition Assessment
Cessnock House and Pathology

Cessnock Hospital, 24 View Street

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Appendix A: Asbestos and Hazardous Materials Register

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Appendix C: Photographs

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Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of Cessnock House and Pathology located at Cessnock Hospital, 24 View Street, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Cessnock House and Pathology	✓	✓	✓	✓	✓	✓	✓

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of Cessnock House and Pathology located at Cessnock Hospital, 24 View Street, Cessnock NSW 2325 (the site). Ben McCann of Tetra Tech conducted the assessment on the 01/07/2024.

Note: The building was occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the building has been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of Cessnock House and Pathology located at Cessnock Hospital, 24 View Street, Cessnock NSW 2325 (the site).

Table 1: Site Information

Site:	Cessnock House and Pathology, Cessnock Hospital, 24 View Street, Cessnock NSW 2325
Age (Circa):	1920s
Site Description:	Hospital building and office

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
External / GF / Cessnock House, East Wing / Veranda, Distribution Board	Electrical Components	Low
External / GF / Pathology / West Wall	Fibre Cement Sheeting	Low
Internal / GF / Cessnock House, East Wing / Fireplace, Infill Panel	Compressed Cement Sheet	Low
Internal / GF / Cessnock House, East Wing / Southeast Room, Distribution Board	Electrical Components	Low
Internal / GF / Pathology / Staff Room, Sink Pad	Bituminous Material	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
External / GF / Cessnock House, East Wing / Veranda, Timberwork	White Paint	Very Low
External / GF / Pathology / South Wall	Cream Paint	Very Low
Internal / GF / Cessnock House, East Wing / Window Frames	White Paint	Very Low

2.1.3. Lead Containing Dust

Location	Material Description	Risk Rating
Internal / GF / Cessnock House, East Wing / Ceiling Space	Dust	Medium

2.1.4. Synthetic Mineral Fibres

Location	Material Description	Risk Rating
External / GF / Cessnock House, West Wing / Hot Water Heater	Insulation Material	Very Low

External / GF / Cessnock House, West Wing / South, Water Heater	Insulation Material	Very Low
Internal / GF / Cessnock House, East Wing / Ceiling Space	Sarking Insulation	Very Low
Internal / GF / Cessnock House, East Wing / Northeast Covered Veranda Room, Ceiling	Sarking Insulation	Very Low
Internal / GF / Cessnock House, West Wing - Ceiling Space / Flexible Ductwork	Insulation Material	Very Low
Internal / GF / Cessnock House, West Wing - Ceiling Space / Roof Lining	Sarking Insulation	Very Low
Internal / GF / Cessnock House, West Wing - Ceiling Space / Throughout	Insulation Batts	Very Low
Internal / GF / Cessnock House, West Wing - Staff Kitchen / Hot Water Heater, Above Sink	Insulation Material	Very Low

2.1.5. Polychlorinated Biphenyls

Location	Material Description	Risk Rating
Internal / GF / Cessnock House, East Wing / Original Wall Light Fittings	Capacitor(s)	Very Low

2.1.6. Ozone Depleting Substances

Location	Material Description	Risk Rating
External / GF / Cessnock House, West Wing / North Side, Below Stairs, AC Units	R22 Hydrochlorofluorocarbon (HCFC)	Very Low
Internal / Basement / Storage Area / Adjacent Entrance, Redundant AC Unit	R22 Hydrochlorofluorocarbon (HCFC)	Very Low

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout.

- Areas outside the scope of assessment.
- Internal, GF, Cessnock House, East Wing, Ceiling Space Above Rooms 0007, 0008 and 0013.
- Subfloor to Cessnock House, East Wing and Pathology – restricted access.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Ceiling space – visually inspected from accessible access hatches only;
- Wall voids;
- Below floors;
- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;
- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of

disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.

- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.
- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.
- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.
- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.
- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Lead Based Paint

- Any works that are likely to disturb lead based paint surface should be undertaken in accordance with the Australian Standard (AS4361.2:2017), Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings.
- Prior to any disturbance of lead based paint a comprehensive risk assessment is to be conducted.
- Any loose and peeling lead based paint should be stabilised (using hand-held scrapers, drop cloths and wet misting where appropriate) and the paint chips disposed of as hazardous waste.
- Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor).

3.3. Lead Containing Dust

- Any work processes involving lead containing dust must be undertaken in a manner to ensure that no worker is exposed to lead at concentrations above the workplace exposure standard (WES) of 0.05mg/m³ over an eight-hour day.
- Prior to any disturbance of lead containing dust a comprehensive risk assessment is to be conducted.
- Lead containing dust removal works should include the use of high efficiency particulate air (HEPA) filtered vacuum cleaners and wet wiping techniques by a licensed contractor under controlled lead-containing dust conditions in conjunction with air monitoring and clearances by a competent hygienist.

3.4. Synthetic Mineral Fibres

- SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].

3.5. Polychlorinated Biphenyls

- It may not be considered feasible to inspect every light fitting within a premise as information available in the public domain on the identification of PCB-containing capacitors is limited. However, all metal capacitors should be treated as containing PCB unless determined otherwise
- All capacitors containing or suspected as PCB or the fluorescent light fittings likely to be disturbed during future works should be removed prior to any future demolition, partial demolition, renovation or refurbishment in accordance with Department of Occupational Health, Safety and Welfare, *Safe Handling of PCB in Fluorescent Light Capacitors* – 1993 and with the *Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*.

3.6. Ozone Depleting Substances

- Removal of refrigerants should be undertaken prior to any future demolition, partial demolition, renovation or refurbishment, where ODS's are likely to be disturbed. A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of in accordance with Association of Fluorocarbon Consumers and Manufacturers, The Australian Refrigeration and Air Conditioning Code of Good Practice – 1992 and the Australian Commonwealth Government Ozone Protection Act – 1989.

3.7. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

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Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Cessnock House, East Wing / North Wall	Fibre Cement Sheeting	Asbestos	A10568	No Asbestos Detected	-	50 m²	-	-	-	Labelled as ACM.	1
External	GF / Cessnock House, East Wing / Veranda Ceiling	Fibre Cement Sheeting	Asbestos	A10567	No Asbestos Detected	-	100 m²	-	-	-	-	2
External	GF / Cessnock House, East Wing / Veranda, Distribution Board	Electrical Components	Asbestos	754-NTLEN347071-1339A1	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Confirm Status and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	3
External	GF / Cessnock House, East Wing / Veranda, East Side, Wall	Fibre Cement Sheeting	Asbestos	A10566	No Asbestos Detected	-	10 m²	-	-	-	-	4
External	GF / Cessnock House, East Wing / Windows	Window Caulking	Asbestos	A10572	No Asbestos Detected	-	8 Units	-	-	-	-	5
External	GF / Cessnock House, West Wing / South, Expansion Joint to Wall	Bituminous Material	Asbestos	A10570	No Asbestos Detected	-	5 m	-	-	-	-	6

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Pathology / South and East Walls	Fibre Cement Sheeting	Asbestos	A10566.1	No Asbestos Detected	-	100 m²	-	-	-	-	7
External	GF / Pathology / Southern Entrance, Ceiling	Fibre Cement Sheeting	Asbestos	A10566.2	No Asbestos Detected	-	6 m²	-	-	-	-	8
External	GF / Pathology / Southern Entrance, Expansion Joints to Floor	Mastic Sealant	Asbestos	A10573	No Asbestos Detected	-	4 m	-	-	-	-	9
External	GF / Pathology / West Wall	Fibre Cement Sheeting	Asbestos	A10569	Chrysotile Asbestos Detected	Non-Friable	70 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	10
Internal	GF / Cessnock House, East Wing / All Areas, Floor Below Vinyl Sheeting	Compressed Cement Sheeting	Asbestos	A10580	No Asbestos Detected	-	100 m²	-	-	-	-	11
Internal	GF / Cessnock House, East Wing / Ceiling Space	Dust	Asbestos	A10579	No Asbestos Detected	-	100 m²	-	-	-	-	12

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Cessnock House, East Wing / Fireplace, Infill Panel	Compressed Cement Sheet	Asbestos	A10581	Chrysotile Asbestos Detected	Non-Friable	1 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	13
Internal	GF / Cessnock House, East Wing / Floor Covering	Vinyl Sheet	Asbestos	754-NTLEN347071-1339A3	No Asbestos Suspected	-	100 m²	-	-	-	Suspected negative due to age and appearance.	14
Internal	GF / Cessnock House, East Wing / Packer, Between Door 8 & Slab	Fibre Cement sheet	Asbestos	A10566.3	No Asbestos Detected	-	0.25 m²	-	-	-	-	15
Internal	GF / Cessnock House, East Wing / Southeast Room, Distribution Board	Electrical Components	Asbestos	754-NTLEN347071-1339A4	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Confirm Status and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	16
Internal	GF / Cessnock House, East Wing / Sunroom Infill Panels, Between Windows	Fibre Cement Sheeting	Asbestos	A10582	No Asbestos Detected	-	6 m²	-	-	-	-	17

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Cessnock House, West Wing / All Areas, Floor Covering	Vinyl Sheet	Asbestos	754-NTLEN347071-1339A5	No Asbestos Suspected	-	200 m²	-	-	-	Suspected negative due to age and appearance.	18
Internal	GF / Cessnock House, West Wing / Comms Cupboard 0017, Walls	Fibre Cement Sheeting	Asbestos	A10574	No Asbestos Detected	-	20 m²	-	-	-	-	19
Internal	GF / Pathology / Staff Room, Sink Pad	Bituminous Material	Asbestos	A10571	Chrysotile Asbestos Detected	Non-Friable	0.5 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	20
Internal	GF / Pathology / Toilets, Floor Covering	Vinyl Sheet (Cream)	Asbestos	754-NTLEN347071-1339A2	No Asbestos Suspected	-	12 m²	-	-	-	Suspected negative due to age and appearance.	21
Internal	Basement / Storage Area / Ceiling and Beams	Sprayed Vermiculite	Asbestos	A10575	No Asbestos Detected	-	200 m²	-	-	-	-	22
Internal	Basement / Storage Area / Subfloor	Fibre Cement Debris	Asbestos	A10577	No Asbestos Detected	-	40 m²	-	-	-	-	23

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Basement / Storage Area / Subfloor	Fibre Cement Debris	Asbestos	A10576	No Asbestos Detected	-	40 m ²	-	-	-	-	24
Internal	Basement / Storage Area / West, Pump	Gasket Material	Asbestos	A10578	No Asbestos Detected	-	2 Units	-	-	-	-	25
External	GF / Cessnock House, East Wing / Veranda, Timberwork	White Paint	Lead Paint	L18410	Lead Detected (2.6 % w/w)	-	30 m ²	Fair	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	26
External	GF / Cessnock House, East Wing / Walls	Cream Paint	Lead Paint	L18411	Lead Detected (0.02% w/w)	-	150 m ²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	27
External	GF / Pathology / South Wall	Cream Paint	Lead Paint	L18412	Lead Detected (0.19% w/w)	-	70 m ²	Fair	Very Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	28

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Cessnock House, East Wing / Walls	Cream Paint	Lead Paint	L18415	Lead Detected (0.02% w/w)	-	400 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	29
Internal	GF / Cessnock House, East Wing / Window Frames	White Paint	Lead Paint	L18414	Lead Detected (2.0% w/w)	-	10 Units	Stable	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	30
Internal	GF / Cessnock House, East Wing / Ceiling Space	Dust	Lead Dust	L18413	Lead Detected (990 mg/kg)	-	100 m²	Poor	Medium	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	31
External	GF / Cessnock House, West Wing / Hot Water Heater	Insulation Material	SMF	754-NTLEN347071-1493S5	Suspected SMF	-	2 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	32

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Cessnock House, West Wing / South, Water Heater	Insulation Material	SMF	754-NTLEN347071-1339S1	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	33
Internal	GF / Cessnock House, East Wing / Ceiling Space	Sarking Insulation	SMF	754-NTLEN347071-1339S2	Suspected SMF	-	120 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	34
Internal	GF / Cessnock House, East Wing / Northeast Covered Veranda Room, Ceiling	Sarking Insulation	SMF	754-NTLEN347071-1339S3	Suspected SMF	-	30 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	35
Internal	GF / Cessnock House, West Wing - Ceiling Space / Flexible Ductwork	Insulation Material	SMF	754-NTLEN347071-1493S3	Suspected SMF	-	60 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	36
Internal	GF / Cessnock House, West Wing - Ceiling Space / Roof Lining	Sarking Insulation	SMF	754-NTLEN347071-1493S4	Suspected SMF	-	380 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	37
Internal	GF / Cessnock House, West Wing - Ceiling Space / Throughout	Insulation Batts	SMF	754-NTLEN347071-1493S2	Suspected SMF	-	400 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	38

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Cessnock House, West Wing - Staff Kitchen / Hot Water Heater, Above Sink	Insulation Material	SMF	754-NTLEN347071-1493S1	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	39
Internal	GF / Cessnock House, East Wing / Original Wall Light Fittings	Capacitor(s)	PCB	754-NTLEN347071-1339P1	Suspected PCB	-	6 Units	-	Very Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.	40
External	GF / Cessnock House, East Wing / North, AC Units	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1339O1	Non ODS Refrigerant	-	3 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	41
External	GF / Cessnock House, West Wing / North Side, Below Stairs, AC Units	R22 Hydrochlorofluorocarbon (HCFC)	ODS	754-NTLEN347071-1339O5	ODS Refrigerant	-	2 Units	-	Very Low	-	Hydrochlorofluorocarbon (HCFC), ozone depleting substances identified in the assessment that require removal during refurbishment or demolition works should be appropriately decanted and disposed of by a licensed contractor in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	42
External	GF / Cessnock House, West Wing / North, AC Units	R32 Refrigerant	ODS	754-NTLEN347071-1339O6	Non ODS Refrigerant	-	2 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	43

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Cessnock House, West Wing / South, AC Units	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1339O3	Non ODS Refrigerant	-	3 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	44
External	GF / Pathology / East and West, AC Units	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1339O2	Non ODS Refrigerant	-	7 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	45
Internal	Basement / Storage Area / Adjacent Entrance, Redundant AC Unit	R22 Hydrochlorofluorocarbon (HCFC)	ODS	754-NTLEN347071-1339O4	ODS Refrigerant	-	1 Unit	-	Very Low	-	Hydrochlorofluorocarbon (HCFC), ozone depleting substances identified in the assessment that require removal during refurbishment or demolition works should be appropriately decanted and disposed of by a licensed contractor in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	46
Internal	GF / Cessnock House, East Wing / Ceiling Space Above Rooms 0007, 0008 and 0013	-	No Access	754-NTLEN347071-1Cessnock House NA2	-	-	-	-	-	-	No safe access in occupied areas. Damaged asbestos-containing fibre cement sheeting previously identified (Practical Environmental Solutions, 2018) in this area. Potential hazardous materials may be present within inaccessible areas.	47
Internal	GF / Cessnock House, East Wing and Pathology / Subfloor	-	No Access	754-NTLEN347071-1Cessnock House NA3	-	-	-	-	-	-	Restricted access. Potential hazardous materials may be present within inaccessible areas.	48

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital - Pathology and Cessnock House 05072024
Client: NSW Health Infrastructure
Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma
E-mail: Les.Palma@turntown.com

Date Sampled: 02-07-2024
Date Analysed: 04-07-2024
Date Authorised: 08-07-2024

Sampled By: Ben McCann
Site: Cessnock Hospital - Pathology and Cessnock House:
Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation No:2220
Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Test Method: **Asbestos in Bulk Samples and Non-homogenous Material**
Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 17

Approved Identifier
Matthew Tang

Approved Signatory
Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A10566	External, GF, Cessnock House, East Wing, Verandah, East Side, Wall, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	10 x 7 x 3 mm	No asbestos fibres detected Organic fibres detected
A10567	External, GF, Cessnock House, East Wing, Verandah Ceiling, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	15 x 13 x 2 mm	No asbestos fibres detected Organic fibres detected
A10568	External, GF, Cessnock House, East Wing, North, Wall, Fibre Cement Sheeting - Beige layered fibre cement sheet material	62 x 51 x 5 mm	No asbestos fibres detected Organic fibres detected
A10569	External, GF, Pathology, West, Wall, Fibre Cement Sheeting - Beige layered fibre cement sheet material	12 x 11 x 3 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10570	External, GF, Cessnock House, West Wing, South, Expansion Joint to Wall, Bituminous Material - Black sticky bituminous material	37 x 23 x 11 mm	No asbestos fibres detected
A10571	Internal, GF, Pathology, Staff Room, Sink Pad, Bituminous Material - Black bituminous material	38 x 19 x 3 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10572	External, GF, Cessnock House, East Wing, Windows Throughout, Window Caulking - White painted amber hardened mastic material	12 x 10 x 4 mm	No asbestos fibres detected
A10573	External, GF, Pathology, Southern Entrance, Expansion Joints to Floor, Mastic Sealant - Grey rubbery mastic material	27 x 17 x 10 mm	No asbestos fibres detected
A10574	Internal, GF, Cessnock House, West Wing, Comms Cupboard 0017, Walls - Beige layered fibre cement sheet material	61 x 52 x 4 mm	No asbestos fibres detected Organic fibres detected
A10575	Internal, BASEMENT, Storage Area, Ceiling and Beams, Sprayed Vermiculite - Beige powdery mica vermiculite material	110 x 38 x 20 mm	No asbestos fibres detected Organic fibres detected

Sample No.	Location & Description	Sample Size (~)	Results
A10576	Internal, BASEMENT, Storage Area, Subfloor, Throughout, Fibre Cement Debris - Beige layered fibre cement sheet material	67 x 51 x 5 mm	No asbestos fibres detected Organic fibres detected
A10577	Internal, BASEMENT, Storage Area, Subfloor, Throughout, Fibre Cement Debris - Beige layered fibre cement sheet material	75 x 55 x 20 mm	No asbestos fibres detected Organic fibres detected
A10578	Internal, BASEMENT, Storage Area, West, Pump, Gasket Material - Green fibrous gasket material	19 x 17 x 3 mm	No asbestos fibres detected Organic fibres detected
A10579	Internal, GF, Cessnock House, East Wing, Ceiling Space, Throughout, Dust - Brown non-homogenous fibrous dust & debris	15.5 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10580	Internal, GF, Cessnock House, East Wing, All Areas, Floor Below Vinyl Sheeting, Compressed Cement Sheeting - Beige layered fibre cement sheet material	11 x 7 x 3 mm	No asbestos fibres detected Organic fibres detected
A10581	Internal, GF, Cessnock House, East Wing, Fire Place, Infill Panel, Compressed Cement Sheet - Grey compressed fibre cement sheet material	10 x 7 x 3 mm	Chrysotile (white asbestos) detected
A10582	Internal, GF, Cessnock House, East Wing, Sunroom infill panels, between windows, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	11 x 9 x 3 mm	No asbestos fibres detected Organic fibres detected

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CERTIFICATE OF ANALYSIS 355686

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN347071-1 Cessnock Hospital-Pathology/Cess</u>
Number of Samples	6 Paint, 1 Dust
Date samples received	04/07/2024
Date completed instructions received	04/07/2024

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 solids and on an as received basis for other matrices.

Report Details

Date results requested by	11/07/2024
Date of Issue	22/07/2024
Reissue Details	This report replaces R00 created on 11/07/2024 due to: revised report with sample #7 removed as per client request.
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager
 Tabitha Roberts, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

Lead in Paint						
Our Reference		355686-1	355686-2	355686-3	355686-5	355686-6
Your Reference	UNITS	L18410	L18411	L18412	L18414	L18415
Date Sampled		03/07/2024	03/07/2024	03/07/2024	03/07/2024	03/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
Date analysed	-	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
Lead in paint	%w/w	2.6	0.02	0.19	2.0	0.02

Lead (dust)		
Our Reference	UNITS	355686-4
Your Reference		L18413
Date Sampled		03/07/2024
Type of sample		Dust
Date prepared	-	09/07/2024
Date analysed	-	09/07/2024
Lead	mg/kg	990

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES.
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			10/07/2024	[NT]	[NT]	[NT]	[NT]	10/07/2024	[NT]
Date analysed	-			10/07/2024	[NT]	[NT]	[NT]	[NT]	10/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	[NT]	[NT]	[NT]	[NT]	91	[NT]

QUALITY CONTROL: Lead (dust)					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			09/07/2024	[NT]	[NT]	[NT]	[NT]	09/07/2024	[NT]
Date analysed	-			09/07/2024	[NT]	[NT]	[NT]	[NT]	09/07/2024	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix C: Photographs

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Line ID 1: External, GF, Cessnock House, East Wing, North Wall, Fibre Cement Sheeting - No Asbestos Detected



Line ID 2: External, GF, Cessnock House, East Wing, Veranda Ceiling, Fibre Cement Sheeting - No Asbestos Detected



Line ID 3: External, GF, Cessnock House, East Wing, Veranda, Distribution Board, Electrical Components - Suspected Asbestos



Line ID 4: External, GF, Cessnock House, East Wing, Veranda, East Side, Wall, Fibre Cement Sheeting - No Asbestos Detected



Line ID 5: External, GF, Cessnock House, East Wing, Windows, Window Caulking - No Asbestos Detected



Line ID 6: External, GF, Cessnock House, West Wing, South, Expansion Joint to Wall, Bituminous Material - No Asbestos Detected



Line ID 7: External, GF, Pathology, South and East Walls, Fibre Cement Sheeting - No Asbestos Detected



Line ID 8: External, GF, Pathology, Southern Entrance, Ceiling, Fibre Cement Sheeting - No Asbestos Detected



Line ID 9: External, GF, Pathology, Southern Entrance, Expansion Joints to Floor, Mastic Sealant - No Asbestos Detected



Line ID 10: External, GF, Pathology, West Wall, Fibre Cement Sheeting - Chrysotile Asbestos Detected



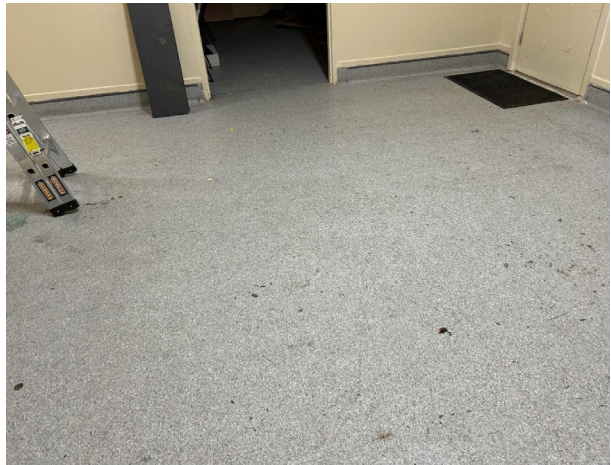
Line ID 11: Internal, GF, Cessnock House, East Wing, All Areas, Floor Below Vinyl Sheeting, Compressed Cement Sheeting - No Asbestos Detected



Line ID 12: Internal, GF, Cessnock House, East Wing, Ceiling Space, Dust - No Asbestos Detected



Line ID 13: Internal, GF, Cessnock House, East Wing, Fireplace, Infill Panel, Compressed Cement Sheet - Chrysotile Asbestos Detected



Line ID 14: Internal, GF, Cessnock House, East Wing, Floor Covering, Vinyl Sheet - No Asbestos Suspected



Line ID 15: Internal, GF, Cessnock House, East Wing, Packer, Between Door 8 & Slab, Fibre Cement sheet - No Asbestos Detected



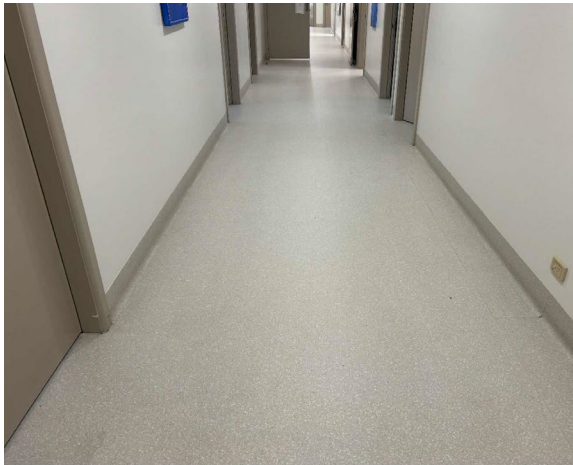
Line ID 15.1: Internal, GF, Cessnock House, East Wing, Packer, Between Door 8 & Slab, Fibre Cement sheet - No Asbestos Detected



Line ID 16: Internal, GF, Cessnock House, East Wing, Southeast Room, Distribution Board, Electrical Components - Suspected Asbestos



Line ID 17: Internal, GF, Cessnock House, East Wing, Sunroom Infill Panels, Between Windows, Fibre Cement Sheeting - No Asbestos Detected



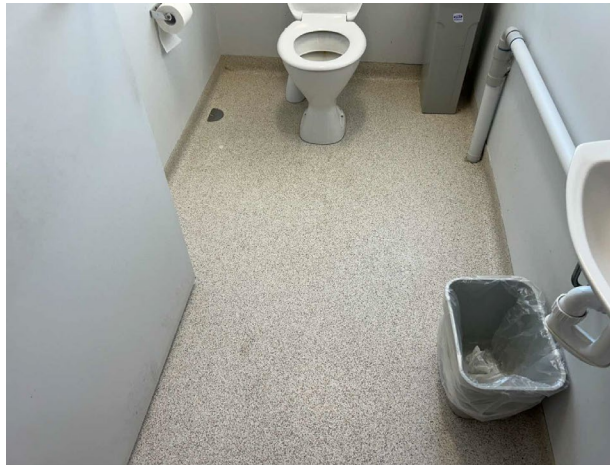
Line ID 18: Internal, GF, Cessnock House, West Wing, All Areas, Floor Covering, Vinyl Sheet - No Asbestos Suspected



Line ID 19: Internal, GF, Cessnock House, West Wing, Comms Cupboard 0017, Walls, Fibre Cement Sheeting - No Asbestos Detected



Line ID 20: Internal, GF, Pathology, Staff Room, Sink Pad, Bituminous Material - Chrysotile Asbestos Detected



Line ID 21: Internal, GF, Pathology, Toilets, Floor Covering, Vinyl Sheet (Cream) - No Asbestos Suspected



Line ID 22: Internal, Basement, Storage Area, Ceiling and Beams, Sprayed Vermiculite - No Asbestos Detected



Line ID 23: Internal, Basement, Storage Area, Subfloor, Fibre Cement Debris - No Asbestos Detected



Line ID 24: Internal, Basement, Storage Area, Subfloor, Fibre Cement Debris - No Asbestos Detected



Line ID 25: Internal, Basement, Storage Area, West, Pump, Gasket Material - No Asbestos Detected



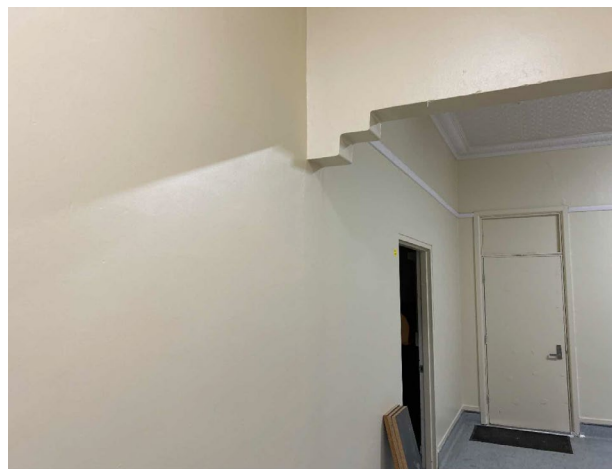
Line ID 26: External, GF, Cessnock House, East Wing, Veranda, Timberwork, White Paint - Lead Detected (2.6 % w/w)



Line ID 27: External, GF, Cessnock House, East Wing, Walls, Cream Paint - Lead Detected (0.02% w/w)



Line ID 28: External, GF, Pathology, South Wall, Cream Paint - Lead Detected (0.19% w/w)



Line ID 29: Internal, GF, Cessnock House, East Wing, Walls, Cream Paint - Lead Detected (0.02% w/w)



Line ID 30: Internal, GF, Cessnock House, East Wing, Window Frames, White Paint - Lead Detected (2.0% w/w)



Line ID 31: Internal, GF, Cessnock House, East Wing, Ceiling Space, Dust - Lead Detected (990 mg/kg)



Line ID 32: External, GF, Cessnock House, West Wing, Hot Water Heater, Insulation Material - Suspected SMF



Line ID 33: External, GF, Cessnock House, West Wing, South, Water Heater, Insulation Material - Suspected SMF



Line ID 34: Internal, GF, Cessnock House, East Wing, Ceiling Space, Sarking Insulation - Suspected SMF



Line ID 35: Internal, GF, Cessnock House, East Wing, Northeast Covered Veranda Room, Ceiling, Sarking Insulation - Suspected SMF



Line ID 36: Internal, GF, Cessnock House, West Wing
- Ceiling Space, Flexible Ductwork, Insulation Material
- Suspected SMF



Line ID 37: Internal, GF, Cessnock House, West Wing -
Ceiling Space, Roof Lining, Sarking Insulation - Suspected
SMF



Line ID 38: Internal, GF, Cessnock House, West Wing
- Ceiling Space, Throughout, Insulation Batt's -
Suspected SMF



Line ID 39: Internal, GF, Cessnock House, West Wing - Staff
Kitchen, Hot Water Heater, Above Sink, Insulation Material -
Suspected SMF



Line ID 40: Internal, GF, Cessnock House, East Wing,
Original Wall Light Fittings, Capacitor(s) - Suspected
PCB



Line ID 41: External, GF, Cessnock House, East Wing, North,
AC Units, R410A Hydrofluorocarbon (HFC) - Non ODS
Refrigerant



Line ID 42: External, GF, Cessnock House, West Wing, North Side, Below Stairs, AC Units, R22 Hydrochlorofluorocarbon (HCFC) - ODS Refrigerant



Line ID 43: External, GF, Cessnock House, West Wing, North, AC Units, R32 Refrigerant - Non ODS Refrigerant



Line ID 44: External, GF, Cessnock House, West Wing, South, AC Units, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 45: External, GF, Pathology, East and West, AC Units, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 46: Internal, Basement, Storage Area, Adjacent Entrance, Redundant AC Unit, R22 Hydrochlorofluorocarbon (HCFC) - ODS Refrigerant

Appendix D: Risk Assessment

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Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

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Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC,1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

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Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

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Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.

NSW Health Infrastructure c/o Turner & Townsend

Asbestos and Hazardous Materials Pre-Demolition Assessment

Main Building

Cessnock Hospital, 24 View Street

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Report Date: 23/08/2024

754-NTLEN347071-1 – Main Building Cessnock Hospital - HMDR - 10072024

Quality Information

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Revision	Description	Date	Originator	Reviewer	Approver
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Distribution

Report Status	No. of copies	Format	Distributed to	Date
R01	1	PDF	NSW Health Infrastructure c/o Turner & Townsend	23/08/2024

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Appendices

Appendix A: Asbestos and Hazardous Materials Register

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Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Main Building located at Cessnock Hospital, 24 View Street, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Main Building	✓	✓	✓	✓	✓	✓	✓

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Main Building located at Cessnock Hospital, 24 View Street, Cessnock NSW 2325 (the site). Ben McCann of Tetra Tech conducted the assessment on the 10/07/2024.

Note: The building was occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the building has been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of the Main Building located at Cessnock Hospital, 24 View Street, Cessnock NSW 2325 (the site).

Table 1: Site Information	
Site:	Main Building, Cessnock Hospital, 24 View Street, Cessnock NSW 2325
Age (Circa):	1920
Site Description:	Hospital building with various wings and sections

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
Internal / L2 / Lift Motor Room / Electrical Cabinet	Dust	High
Internal / GF / Central Wing, Day Surgery/Recovery / Plant Room, Penetration, Pipework	Lagging	Medium
Internal / GF / Central Wing, North Section / Ceiling Space Above Plant Room 1073, Pipework	Lagging	Medium
Internal / GF / Central Wing, North Section / Plant Room 1073, Wall Cavity, Penetration	Lagging	Medium
Internal / GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Debris	Fibre Cement Debris	Medium
Internal / GF / Southeast Wing / Ceiling Space, Throughout	Lagging	Medium
Internal / GF / Southeast Wing / Room 1202, Ceiling Space, Pipework	Lagging	Medium
Internal / L1 / Southeast Wing / Ceiling Space, Central, Pipework	Lagging	Medium
Internal / GF / Central Wing, Day Surgery/Recovery / Floor covering, Throughout	Vinyl Floor Tiles (white with grey specks)	Low
Internal / GF / Central Wing, North Section / Pharmacy 1075 and 1076, Ceiling Space	Lagging	Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Boilers	Insulation	Low
Internal / GF / Central Wing, Ward A / Room 1096, Wall Cavities, Pipework	Lagging	Low
Internal / GF / Central Wing, Ward A / Room 1097, Within Wall Cavity	Lagging	Low
Internal / GF / Central Wing, Ward A / Room 1104, Wall Cavity Adjacent Toilet, Pipework	Lagging	Low
Internal / GF / Central Wing, Ward B / Floor covering, Various Throughout	Vinyl Floor Tiles (blue)	Low
Internal / GF / Central Wing, Ward B / Rooms 1174, 1176 & 1177, Floor Covering	Vinyl Floor Tiles (white with grey specks)	Low

Internal / GF / Southeast Wing / Reception Room 1237 and Drug Room 1238, Wall Cavities, Pipework	Lagging	Low
Internal / GF / Southeast Wing / Room 1195, Wall Cavity, Pipework	Lagging	Low
Internal / L1 / Southeast Wing / Room 2006, Wall Cavity, Pipework	Lagging	Low
Internal / L1 / Southeast Wing / Room 2014, Wall Cavity, Pipework	Lagging	Low
External / GF / Central Wing / Central Courtyard, Wall Lining, Entry	Fibre Cement Sheeting	Low
External / GF / Central Wing / North Side, Infill Panels Above Windows	Fibre Cement Sheeting	Low
External / GF / Central Wing / Northern Boiler Area, Metal Encased Pipework	Lagging	Low
External / GF / Central Wing / South Side, Infill Panels Above Windows	Fibre Cement Sheeting	Low
External / GF / Central Wing / South Side, Metal Window Frames	Window Caulking	Low
External / GF / Central Wing / Southeast Side, Plant Room, Entrance Door	Fire Door Core	Low
External / GF / ED Wing / Eave, Throughout	Fibre Cement Sheeting	Low
External / GF / ED Wing / Roof, East and West Sides, Infill Panels Below Roof Gable	Fibre Cement Sheeting	Low
External / GF / West Wing / Eastern Entrance Awning, Adjacent Room 1171	Fibre Cement Sheeting	Low
External / GF / West Wing / North Section, Eaves	Fibre Cement Sheeting	Low
External / GF / West Wing / South Side, Eaves	Fibre Cement Sheeting	Low
External / GF / West Wing / Western Covered Area Adjacent Kitchen, Awning and Infill Panels	Fibre Cement Sheeting	Low
External / L1 / Southeast Wing / Throughout, Eaves	Fibre Cement Sheeting	Low
External / Roof / Central Wing, North Section / Central Area, Infill Panels Below Roof Gable	Fibre Cement Sheeting	Low
External / Roof / Southeast Wing / Northwest Lower Roof Section, Waterproofing	Bituminous Membrane	Low
Internal / GF / All Areas / Ceiling Space, Various Throughout, Heater Banks to AC Ducting, Internal Lining	Millboard Insulation	Low
Internal / GF / Central Wing, Day Surgery/Recovery / Ceiling Space Above Reception Area, Pipework	Gasket Material	Low

Internal / GF / Central Wing, Day Surgery/Recovery / Ceiling Space Ladder Access Point Adjacent Reception, Floor Covering	Vinyl Floor Tiles	Low
Internal / GF / Central Wing, North Section / Ceiling Space, South and East Sides, Walls	Fibre Cement Sheeting	Low
Internal / GF / Central Wing, North Section / Pharmacy 1075, Sink Pad	Bituminous Material	Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Boiler, Large Gasket	Gasket Material	Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Electrical Switch Board	Bituminous Backing Board	Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Packing to Penetration Above Boilers	Fibre Cement Sheeting	Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Pipework	Gasket Material	Low
Internal / GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Ceiling	Fibre Cement Sheeting	Low
Internal / GF / Central Wing, North Section / Staff Room 1058, Sink Pad	Bituminous Material	Low
Internal / GF / Central Wing, North Section / Sub-Floor Area, Central North, Adjacent Hatch	Fibre Cement Sheeting	Low
Internal / GF / Central Wing, Ward A / Room 1092, Floor Covering	Vinyl Floor Tiles (Brown)	Low
Internal / GF / Central Wing, Ward A / Rooms 1104, 1105, 1107, 1108 and 1110	Vinyl Floor Tiles (Brown)	Low
Internal / GF / Central Wing, Ward B / Floor Covering, Room 1178, Throughout	Vinyl Floor Tiles (white)	Low
Internal / GF / Central Wing, Ward B / Various Throughout, Floor Covering (Mixed in With Blue Tiles)	Vinyl Floor Tiles (White)	Low
Internal / GF / Southeast Wing / Double Door to Room 1213	Fire Door Core	Low
Internal / GF / Southeast Wing / Room 1191, Floor Covering	Vinyl Floor Tiles (Brown)	Low
Internal / GF / Southeast Wing / Rooms 1201, 1202, and 1203, Ceiling	Fibre Cement Sheeting	Low
Internal / GF / Southeast Wing / Southern Sub-Floor Area, Adjacent Entrance, Electrical Board	Bituminous Backing Board	Low
Internal / L1 / Southeast Wing / Ceiling Space, North, Stored On Ledge	Woven Material	Low
Internal / L1 / Southeast Wing / Ceiling Space, South, Old Water Tanks	Moulded Fibre Cement	Low

Internal / L1 / Southeast Wing / Ceiling Space, Waterproofing to Underside of Roof	Bituminous Material	Low
Internal / L1 / Southeast Wing / Central Corridor and Rooms 2002, 2003, 2004, 2005, 2006, 2010, 2011, 2015, 2016, 2017, 2018, 2020, 2023, 2024, 2026 and 2029	Vinyl Floor Tiles (Brown)	Low
Internal / L1 / Southeast Wing / Rooms 2033 and 2034, Below Carpet, Floor Covering	Vinyl Floor Tiles (Brown)	Low
Internal / L2 / Lift Motor Room / Adjacent Motor, Wire Insulation	Woven Material	Low
Internal / L2 / Lift Motor Room / Central Electrical Cabinet, Flash Arrestors	Fibre Cement Sheeting	Low
Internal / L2 / Lift Motor Room / Electrical Cabinet	Bituminous Backing Board	Low
Internal / L2 / Lift Motor Room / Electrical Cabinet, Wire Insulation	Woven Material	Low
Internal / L2 / Lift Motor Room / Lift Motor	Friction Pads	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
External / GF / Southeast Wing / Door & Frames, Various Throughout	Purple (Light) Paint	Low
External / GF / Central Wing / Central Courtyard, Windows & Frames, Throughout	White Paint	Low
External / GF and L1 / Southeast Wing / Throughout, Timber Window Frames	White Paint	Low
Internal / GF / Central Wing, North Section / Plant Room 1060, Walls	Cream Paint	Low
Internal / GF / Central Wing, Ward A & B / Ceiling Space, Brickwork Lining	White Paint	Low
Internal / GF / Southeast Wing / All Areas, Walls	Light Purple Paint	Low
Internal / L1 / Southeast Wing / All Areas, Walls	Cream Paint	Low
Internal / L2 / Lift Motor Room / Lift Motor	Green Paint	Low
External / GF / Central Wing / Northern Courtyard, Ductwork, Throughout	Grey (Light) Paint	Very Low
External / GF / Central Wing / Northern Courtyard, Timber Window Frames	White Paint	Very Low
Internal / GF / All Areas / Various Throughout, Walls	Light Purple Paint	Very Low

2.1.3. Lead Containing Dust

Location	Material Description	Risk Rating
Internal / GF / Central Wing, North Section / Plant Room 1060, Throughout	Dust	High
Internal / GF and L1 / Southeast Wing / Ceiling Space, All surfaces, Throughout	Dust	Medium
Internal / L2 / Lift Motor Room / On Floor	Dust	Medium
Internal / GF / Central Wing, Day Surgery/Recovery / Plant Room, Throughout	Dust	Low
Internal / GF / Central Wing, North Section / Ceiling Space, Throughout	Dust	Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Throughout	Dust	Low
Internal / GF / Central Wing, North Section / Plant Room 1119, Ceiling Space	Dust	Low
Internal / GF / Central Wing, Ward A & B / Ceiling Space, All surfaces, Throughout	Dust	Low
Internal / GF / ED Wing / Ceiling Space, On top of Ceiling, Throughout	Dust	Low
Internal / GF / Southeast Wing / Southern Sub-Floor Area, Throughout	Dust	Low

2.1.4. Synthetic Mineral Fibres

Location	Material Description	Risk Rating
Internal / GF / Central Wing, Day Surgery/Recovery / Plant Room, Pipework Debris	Insulation Material	Low
External / GF / Central Wing / Central Alleyway, Pipework debris	Insulation Material	Low
External / GF / Central Wing / Central Courtyard, Boilers and Associated Pipework	Insulation Material	Very Low
External / GF / Central Wing / Northern Boiler Area, Boilers	Insulation Material	Very Low
Internal / GF / All Areas / Ceiling Space, Ductwork	Insulation Material	Very Low
Internal / GF / All Areas / Ceiling Space, Pipework	Insulation Material	Very Low
Internal / GF / All Areas / Ceiling Space, Throughout	Sarking Insulation	Very Low

Internal / GF / All Areas / Staff Rooms and Kitchens, Water Heaters	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Plant Room 1073, Pipework Above Boilers	Insulation Material	Very Low
Internal / GF / Southeast Wing / Central Corridor, Central	Compressed Ceiling Tiles	Very Low
Internal / GF / Southeast Wing / Room 1191, Water Heater	Insulation Material	Very Low
Internal / L1 / Southeast Wing / Ceiling Space, North, Old Metal Water Tank	Insulation Material	Very Low
External / GF / Central Wing / Central Courtyard, Pipework, Central	Insulation Material	Very Low
Internal / GF / Central Wing, Day Surgery/Recovery / Plant Room, Boilers	Insulation Material	Very Low
Internal / GF / Central Wing, Day Surgery/Recovery / Plant Room, Pipework	Insulation Material	Very Low
Internal / GF / Central Wing, Day Surgery/Recovery / Plant Room, Water Heater	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Ceiling Space, Ductwork, Throughout	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Ceiling Space, Flexible Ductwork, Throughout	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Ceiling Space, Sarking, Roof Lining	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Ductwork	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Insulation Batts	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Plant Room 1119, Ductwork	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Plant Room 1119, Pipework	Insulation Material	Very Low
Internal / GF / Central Wing, North Section / Sub-Floor Area, Pipework	Insulation Material	Very Low
Internal / GF / Central Wing, Ward A & B / Ceiling Space, Ductwork	Insulation Material	Very Low
Internal / GF / Central Wing, Ward A & B / Ceiling Space, Flexible ductwork	Insulation Material	Very Low
Internal / GF / Central Wing, Ward A & B / Ceiling Space, Pillow insulation, Penetrations adjacent ladder	Insulation Material	Very Low

Internal / GF / ED Wing / Ceiling Space, Ductwork, Various Throughout	Insulation Batts	Very Low
Internal / GF / ED Wing / Ceiling Space, Insulation Batts, Throughout	Insulation Material	Very Low
Internal / GF / ED Wing / Ceiling Space, Sarking, Roof Lining	Insulation Material	Very Low

2.1.5. Polychlorinated Biphenyls

Location	Material Description	Risk Rating
Internal / GF / Southeast Wing / Southern Sub-Floor Area, Light Fittings	Capacitor(s)	Very Low

2.1.6. Ozone Depleting Substances

Location	Material Description	Risk Rating
External / GF / Central Wing / Northern Boiler Area, Chillers	Unknown Refrigerant	Very Low
External / GF / Central Wing / South Side	Unknown Refrigerant	Very Low
Internal / GF / Central Wing, North Section / Pharmacy 1075, AC Unit	Unknown Refrigerant	Very Low
Internal / GF / Central Wing, Ward A / Staff Room 1118, AC Unit	Unknown Refrigerant	Very Low

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout.
- Areas outside the scope of assessment.
- External, L1, Radio Transmitter Tower – RFR Hazard.
- Internal GF Sub Floor Areas – Limited access and labelled as confined space.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Internal, Ceiling Spaces – Limited access in occupied areas. Some labelled as confined spaces;
- Wall and ceiling voids;
- Below floors;
- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;
- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.
- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.

- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.
- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.
- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.
- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Lead Based Paint

- Any works that are likely to disturb lead based paint surface should be undertaken in accordance with the Australian Standard (AS4361.2:2017), Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings.
- Prior to any disturbance of lead based paint a comprehensive risk assessment is to be conducted.
- Any loose and peeling lead based paint should be stabilised (using hand-held scrapers, drop cloths and wet misting where appropriate) and the paint chips disposed of as hazardous waste.
- Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor).

3.3. Lead Containing Dust

- Any work processes involving lead containing dust must be undertaken in a manner to ensure that no worker is exposed to lead at concentrations above the workplace exposure standard (WES) of 0.05mg/m³ over an eight-hour day.
- Prior to any disturbance of lead containing dust a comprehensive risk assessment is to be conducted.
- Lead containing dust removal works should include the use of high efficiency particulate air (HEPA) filtered vacuum cleaners and wet wiping techniques by a licensed contractor under controlled lead-containing dust conditions in conjunction with air monitoring and clearances by a competent hygienist.

3.4. Synthetic Mineral Fibres

- SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].

3.5. Polychlorinated Biphenyls

- It may not be considered feasible to inspect every light fitting within a premise as information available in the public domain on the identification of PCB-containing capacitors is limited. However, all metal capacitors should be treated as containing PCB unless determined otherwise
- All capacitors containing or suspected as PCB or the fluorescent light fittings likely to be disturbed during future works should be removed prior to any future demolition, partial demolition, renovation or refurbishment in accordance with Department of Occupational Health, Safety and Welfare, *Safe Handling of PCB in Fluorescent Light Capacitors* – 1993 and with the *Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*.

3.6. Ozone Depleting Substances

- Removal of refrigerants should be undertaken prior to any future demolition, partial demolition, renovation or refurbishment, where ODS's are likely to be disturbed. A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of in accordance with Association of Fluorocarbon Consumers and Manufacturers, The Australian Refrigeration and Air Conditioning Code of Good Practice – 1992 and the Australian Commonwealth Government Ozone Protection Act – 1989.

3.7. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;
- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/ refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

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Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Central Wing / Central Courtyard, Timber Window Frames	Window Caulking	Asbestos	A10673	No Asbestos Detected	-	10 Units	-	-	-	Including associated debris below windows	1
External	GF / Central Wing / Central Courtyard, Wall Lining, Entry	Fibre Cement Sheeting	Asbestos	A10672	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	20 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	2
External	GF / Central Wing / North Side, Eaves	Fibre Cement Sheeting	Asbestos	A10661	No Asbestos Detected	-	30 m²	-	-	-	-	3
External	GF / Central Wing / North Side, Entrance Awning Adjacent Room 1048	Fibre Cement Sheeting	Asbestos	A10659	No Asbestos Detected	-	12 m²	-	-	-	-	4
External	GF / Central Wing / North Side, Infill Panels Above Windows	Fibre Cement Sheeting	Asbestos	Previously Sampled MB03.1	Chrysotile Asbestos Detected	Non-Friable	2 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	5

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Central Wing / Northern Boiler Area, Ductwork Flange Joints	Mastic Sealant	Asbestos	A10657	No Asbestos Detected	-	20 m	-	-	-	-	6
External	GF / Central Wing / Northern Boiler Area, Infill Panel Above Oxygen Storage	Fibre Cement Sheeting	Asbestos	A10658	No Asbestos Detected	-	1 m²	-	-	-	-	7
External	GF / Central Wing / Northern Boiler Area, Metal Encased Pipework	Lagging	Asbestos	754-NTLEN347071-1Main Building339A2	Suspected Asbestos	Friable	20 m	Stable	Low	Prior to refurbishment or demolition	Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	8
External	GF / Central Wing / Northern Boiler Area, Residue to Pipework	Lagging	Asbestos	A10654	No Asbestos Detected	-	2 m	-	-	-	-	9
External	GF / Central Wing / Northern Generator Awning	Fibre Cement Sheeting	Asbestos	A10661.1	No Asbestos Detected	-	12 m²	-	-	-	-	10
External	GF / Central Wing / South Side, Infill Panels Above Windows	Fibre Cement Sheeting	Asbestos	Previously Sampled MB03	Chrysotile Asbestos Detected	Non-Friable	20 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant	11

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
External	GF / Central Wing / South Side, Metal Window Frames	Window Caulking	Asbestos	A10645	Chrysotile Asbestos Detected	Non-Friable	50 Units	Fair	Low	Prior to refurbishment or demolition	Remove windows whole without direct disturbance to caulking under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor. If scraping out of caulking is undertaken as the removal method (i.e. material is being crumbled, pulverized, rendered to a powder), this should be done under friable asbestos removal conditions by a Class A (friable) licensed asbestos removal contractor.	12
External	GF / Central Wing / Southeast Side, Plant Room, Entrance Door	Fire Door Core	Asbestos	754-NTLEN347071-1Main Building493A1	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Tagged Wormald Building Products 1998. Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	13
External	GF / ED Wing / Eaves, Throughout	Fibre Cement Sheeting	Asbestos	A10653	Chrysotile Asbestos Detected	Non-Friable	30 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	14

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / ED Wing / Emergency Entrance, Wall lining, Southwest	Compressed Cement Sheeting	Asbestos	A10651	No Asbestos Detected	-	30 m ²	-	-	-	-	15
External	GF / ED Wing / Main Entrance	Construction Joint Mastic	Asbestos	A10650	No Asbestos Detected	-	3 m ²	-	-	-	-	16
External	GF / ED Wing / Main Entrance, Awning	Fibre Cement Sheeting	Asbestos	Previously Sampled MB13	No Asbestos Detected	-	80 m ²	-	-	-	-	17
External	GF / ED Wing / Northern Entrance, Wall Lining, Southwest	Compressed Cement Sheeting	Asbestos	A10651.1	No Asbestos Detected	-	10 m ²	-	-	-	-	18
External	GF / ED Wing / Roof, East and West Sides, Infill Panels Below Roof Gable	Fibre Cement Sheeting	Asbestos	A10653.1	Chrysotile Asbestos Detected	Non-Friable	40 m ²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	19
External	GF / ED Wing / Roof, Gable Verge Lining, East & West	Fibre Cement Sheeting	Asbestos	A10652	No Asbestos Detected	-	60 m	-	-	-	-	20

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / West Wing / Eastern Entrance Awning, Adjacent Room 1171	Fibre Cement Sheeting	Asbestos	Previously Sampled MB02	Chrysotile & Amosite Asbestos Detected	Non-Friable	6 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	21
External	GF / West Wing / North Section, Eaves	Fibre Cement Sheeting	Asbestos	A10662.1	Chrysotile Asbestos Detected	Non-Friable	40 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	22
External	GF / West Wing / North Section, Infill Panels Above Windows	Fibre Cement Sheeting	Asbestos	Previously Sampled MB06	No Asbestos Detected	-	20 m²	-	-	-	-	23
External	GF / West Wing / South Side, Eaves	Fibre Cement Sheeting	Asbestos	A10662.2	Chrysotile Asbestos Detected	Non-Friable	6 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	24
External	GF / West Wing / Western Covered Area Adjacent Kitchen, Awning and Infill Panels	Fibre Cement Sheeting	Asbestos	A10662	Chrysotile Asbestos Detected	Non-Friable	20 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant	25

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
External	GF / West Wing / Western Entrance Awning	Fibre Cement Sheeting	Asbestos	A10663	No Asbestos Detected	-	20 m²	-	-	-	-	26
External	L1 / Southeast Wing / Throughout, Eaves	Fibre Cement Sheeting	Asbestos	A10665	Chrysotile Asbestos Detected	Non-Friable	60 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	27
External	Roof / Central Wing, North Section / Central Area, Ductwork Flange Joints	Mastic Sealant	Asbestos	A10670	No Asbestos Detected	-	4 m	-	-	-	-	28
External	Roof / Central Wing, North Section / Central Area, Infill Panels Below Roof Gable	Fibre Cement Sheeting	Asbestos	A10672.1	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	12 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	29

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	Roof / Central Wing, North Section / Infill Panel, Adjacent Ladder Access	Fibre Cement Sheeting	Asbestos	A10669	No Asbestos Detected	-	4 m²	-	-	-	-	30
External	Roof / Central Wing, South Section / Eaves	Fibre Cement Sheeting	Asbestos	A10666	No Asbestos Detected	-	60 m²	-	-	-	-	31
External	Roof / Central Wing, South Section / North Side, Infill Panel	Fibre Cement Sheeting	Asbestos	754-NTLEN347071-1Main Building339A5	None Suspected	-	1 m²	-	-	-	Suspected negative due to age and appearance.	32
External	Roof / ED Wing / Eaves, Throughout	Fibre Cement Sheeting	Asbestos	A10668	No Asbestos Detected	-	25 m²	-	-	-	-	33
External	Roof / ED Wing / West Side, Infill Panels	Fibre Cement Sheeting	Asbestos	754-NTLEN347071-1Main Building339A4	None Suspected	-	4 m²	-	-	-	Suspected negative due to age and appearance.	34
External	Roof / Southeast Wing / Northwest Lower Roof Section, Waterproofing	Bituminous Membrane	Asbestos	A10664	Chrysotile Asbestos Detected	Non-Friable	12 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant	35

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	GF / All Areas / Ceiling Space, Various Throughout, Heater Banks to AC Ducting, Internal Lining	Millboard Insulation	Asbestos	754-NTLEN347071-1Main Building339A32	Suspected Asbestos	Friable	30 Units	Stable	Low	Prior to refurbishment or demolition	Live plant hazard. Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	36
Internal	GF / All Areas / Various Throughout, Doors	Fire Door Core	Asbestos	754-NTLEN347071-1Main Building339A12	None Suspected	-	20 Units	-	-	-	Pacific Doors and Protection Engineers. Manufactured post 2004. Suspected negative due to age and appearance.	37
Internal	GF / Central Wing, Day Surgery/Recovery / Ceiling Space Above Reception Area, Pipework	Gasket Material	Asbestos	A10689	Chrysotile Asbestos Detected	Non-Friable	4 Units	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	38
Internal	GF / Central Wing, Day Surgery/Recovery / Ceiling Space Ladder Access Point Adjacent Reception, Floor Covering	Vinyl Floor Tiles	Asbestos	Previously Sampled MB11.2	Chrysotile Asbestos Detected	Non-Friable	3 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	39

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, Day Surgery/Recovery / Floor covering, Throughout	Vinyl Floor Tiles (white with grey specks)	Asbestos	Previously Sampled MB11.1	Chrysotile Asbestos Detected	Non-Friable	200 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	40
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Penetration, Pipework	Lagging	Asbestos	Previously Sampled MB14	Amosite Asbestos Detected	Friable	1 m	Fair	Medium	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	41
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Throughout	Dust	Asbestos	A10646	No Asbestos Detected	-	15 m²	-	-	-	-	42
Internal	GF / Central Wing, North Section / Ceiling Space Above Plant Room 1073, Pipework	Lagging	Asbestos	Previously Sampled MB14.5	Amosite Asbestos Detected	Friable	5 m	Fair	Medium	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	43
Internal	GF / Central Wing, North Section / Ceiling Space, South and East Sides, Walls	Fibre Cement Sheeting	Asbestos	754-NTLEN347071-	Suspected Asbestos	Non-Friable	150 m²	Stable	Low	Prior to refurbishment or demolition	Height restriction. Confirm status and remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos	44

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
				1Main Building339A32							removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	GF / Central Wing, North Section / Ceiling Space, Throughout	Dust	Asbestos	A10679	No Asbestos Detected	-	400 m²	-	-	-	-	45
Internal	GF / Central Wing, North Section / Ceiling Space, Throughout, Debris	Fibre Cement Sheeting	Asbestos	A10678	No Asbestos Detected	-	5 m²	-	-	-	-	46
Internal	GF / Central Wing, North Section / Corridor 1031, Floor Covering	Fibrous Backed Vinyl Sheet	Asbestos	A10671	No Asbestos Detected	-	30 m²	-	-	-	-	47
Internal	GF / Central Wing, North Section / Pharmacy 1075 and 1076, Ceiling Space	Lagging	Asbestos	Previously Sampled MB14.3	Amosite Asbestos Detected	Friable	20 m	Unknown	Low	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	48
Internal	GF / Central Wing, North Section / Pharmacy 1075, Sink Pad	Bituminous Material	Asbestos	A10683.1	Chrysotile Asbestos Detected	Non-Friable	0.5 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	49

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Plant Room 1060, Infill Panels	Fibre Cement Sheeting	Asbestos	A10684	No Asbestos Detected	-	6 m²	-	-	-	-	50
Internal	GF / Central Wing, North Section / Plant Room 1073, Boiler, Large Gasket	Gasket Material	Asbestos	A10676	Chrysotile Asbestos Detected	Non-Friable	2 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	51
Internal	GF / Central Wing, North Section / Plant Room 1073, Boilers	Insulation	Asbestos	754-NTLEN347071-1Main Building339A8	Suspected Asbestos	Friable	2 Units	Stable	Low	Prior to refurbishment or demolition	Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	52
Internal	GF / Central Wing, North Section / Plant Room 1073, Electrical Switch Board	Bituminous Backing Board	Asbestos	754-NTLEN347071-1Main Building339A7	Suspected Asbestos	Non-Friable	1 Unit	Fair	Low	Prior to refurbishment or demolition	Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	53
Internal	GF / Central Wing, North Section / Plant Room 1073, Infill Panels	Fibre Cement Sheeting	Asbestos	A10675	No Asbestos Detected	-	3 m²	-	-	-	-	54

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Plant Room 1073, Packing to Penetration Above Boilers	Fibre Cement Sheeting	Asbestos	A10677	Chrysotile Asbestos Detected	Non-Friable	1 m²	Poor	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	55
Internal	GF / Central Wing, North Section / Plant Room 1073, Pipework	Gasket Material	Asbestos	A10674	Chrysotile Asbestos Detected	Non-Friable	12 Units	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	56
Internal	GF / Central Wing, North Section / Plant Room 1073, Wall Cavity, Penetration	Lagging	Asbestos	Previously Sampled MB14.4	Amosite Asbestos Detected	Friable	0.5 m²	Poor	Medium	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	57
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Ceiling	Fibre Cement Sheeting	Asbestos	A10655	Chrysotile Asbestos Detected	Non-Friable	15 m²	Poor	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	58

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Debris	Fibre Cement Debris	Asbestos	A10655.1	Chrysotile Asbestos Detected	Non-Friable	15 m²	Poor	Medium	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	59
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, on Top of Ceiling	Dust	Asbestos	A10656	No Asbestos Detected	-	120 m²	-	-	-	-	60
Internal	GF / Central Wing, North Section / Room 1033, Floor Covering	Fibrous Backed Viny Sheet	Asbestos	A10671.3	No Asbestos Detected	-	20 m²	-	-	-	-	61
Internal	GF / Central Wing, North Section / Staff Room 1058, Sink Pad	Bituminous Material	Asbestos	A10683	Chrysotile Asbestos Detected	Non-Friable	0.5 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	62
Internal	GF / Central Wing, North Section / Storeroom 1062	Fibrous Backed Viny Sheet	Asbestos	A10671.1	No Asbestos Detected	-	8 m²	Stable	-	-	-	63

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Sub-Floor Area, Central North, Adjacent Hatch	Fibre Cement Sheeting	Asbestos	A10688	Chrysotile Asbestos Detected	Non-Friable	4 m²	Poor	Low	Prior to refurbishment or demolition	Full extent unknown. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	64
Internal	GF / Central Wing, Ward A / Room 1092, Floor Covering	Vinyl Floor Tiles (Brown)	Asbestos	A10685.1	Chrysotile Asbestos Detected	Non-Friable	12 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	65
Internal	GF / Central Wing, Ward A / Room 1096, Wall Cavities, Pipework	Lagging	Asbestos	Previously Sampled MB14.7	Amosite Asbestos Detected	Friable	10 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	66
Internal	GF / Central Wing, Ward A / Room 1097, Within Wall Cavity, Pipework	Lagging	Asbestos	Previously Sampled MB14.8	Amosite Asbestos Detected	Friable	5 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	67

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, Ward A / Room 1104, Wall Cavity Adjacent Toilet, Pipework	Lagging	Asbestos	Previously Sampled MB14.6	Amosite Asbestos Detected	Friable	8 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	68
Internal	GF / Central Wing, Ward A / Rooms 1104, 1105, 1107, 1108 and 1110	Vinyl Floor Tiles (Brown)	Asbestos	Previously Sampled MB07	Chrysotile Asbestos Detected	Non-Friable	220 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	69
Internal	GF / Central Wing, Ward A / Staff Room 1118, Floor Covering	Fibrous Backed Viny Sheet	Asbestos	A10671.2	No Asbestos Detected	-	30 m²	-	-	-	-	70
Internal	GF / Central Wing, Ward A & B / Ceiling Space, All surfaces, Throughout	Dust	Asbestos	A10680	No Asbestos Detected	-	200 m²	-	-	-	-	71
Internal	GF / Central Wing, Ward A & B / Ceiling Space, Door	Fire Door Core	Asbestos	754- NTLEN347071- 1Main Building339A11	None Suspected	-	1 Unit	-	-	-	Manufactured in 2008. Suspected negative due to age and appearance.	72

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, Ward B / Floor Covering, Room 1178, Throughout	Vinyl Floor Tiles (white)	Asbestos	A10681	Chrysotile Asbestos Detected	Non-Friable	12 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	73
Internal	GF / Central Wing, Ward B / Floor covering, Various Throughout	Vinyl Floor Tiles (blue)	Asbestos	Previously Sampled MB10	Chrysotile Asbestos Detected	Non-Friable	300 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	74
Internal	GF / Central Wing, Ward B / Floor Covering, Various Throughout	New Style Sheet Vinyl (black with white specs)	Asbestos	754-NTLEN347071-1Main Building493A2	None Suspected	-	100 m²	-	-	-	Suspected negative due to age and appearance.	75
Internal	GF / Central Wing, Ward B / Floor Covering, Various Throughout	New Style Sheet Vinyl (Cream)	Asbestos	754-NTLEN347071-1Main Building493A3	None Suspected	-	60 m²	-	-	-	Suspected negative due to age and appearance.	76
Internal	GF / Central Wing, Ward B / Room 1164, Distribution Boards	Electrical Components	Asbestos	754-NTLEN347071-	None Suspected	-	2 Units	-	-	-	Suspected negative due to age and appearance.	77

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
				1Main Building339A13								
Internal	GF / Central Wing, Ward B / Rooms 1174, 1176 & 1177, Floor Covering	Vinyl Floor Tiles (white with grey specks)	Asbestos	Previously Sampled MB11	Chrysotile Asbestos Detected	Non-Friable	200 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	78
Internal	GF / Central Wing, Ward B / Various Throughout, Floor Covering (Mixed in With Blue Tiles)	Vinyl Floor Tiles (White)	Asbestos	A10682	Chrysotile Asbestos Detected	Non-Friable	20 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	79
Internal	GF / Southeast Wing / Ceiling Space, Throughout	Lagging	Asbestos	Previously Sampled MB14.1	Amosite Asbestos Detected	Friable	100 m	Fair	Medium	Prior to refurbishment or demolition	Restrict access and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	80
Internal	GF / Southeast Wing / Double Door to Room 1213	Fire Door Core	Asbestos	754- NTLEN347071- 1Main Building339A31	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Manufactured in 1997. Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal	81

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	GF / Southeast Wing / Reception Room 1237 and Drug Room 1238, Wall Cavities, Pipework	Lagging	Asbestos	Previously Sampled MB14.12	Amosite Asbestos Detected	Friable	12 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	82
Internal	GF / Southeast Wing / Room 1191, Floor Covering	Vinyl Floor Tiles (Brown)	Asbestos	A10685	Chrysotile Asbestos Detected	Non-Friable	18 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	83
Internal	GF / Southeast Wing / Room 1195, Wall Cavity, Pipework	Lagging	Asbestos	Previously Sampled MB14.11	Amosite Asbestos Detected	Friable	5 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	84
Internal	GF / Southeast Wing / Room 1202, Ceiling Space, Pipework	Lagging	Asbestos	Previously Sampled MB14.13	Amosite Asbestos Detected	Friable	10 m	Fair	Medium	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State	85

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	GF / Southeast Wing / Rooms 1201, 1202, and 1203, Ceiling	Fibre Cement Sheeting	Asbestos	Previously Sampled MB09	Chrysotile Asbestos Detected	Non-Friable	25 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	86
Internal	GF / Southeast Wing / Southern Sub-Floor Area, Adjacent Entrance, Electrical Board	Bituminous Backing Board	Asbestos	754-NTLEN347071-1Main Building339A6	Suspected Asbestos	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Painted. Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	87
Internal	GF / Southeast Wing / Southern Sub-Floor Area, Central, Debris	Woven Material	Asbestos	A10648	No Asbestos Detected	-	2 m²	-	-	-	-	88
Internal	GF / Southeast Wing / Southern Sub-Floor Area, Central, Pipework	Gasket Material	Asbestos	A10647	No Asbestos Detected	-	1 Unit	-	-	-	-	89
Internal	GF / Southeast Wing / Southern Sub-Floor Area, Throughout	Dust	Asbestos	A10649	No Asbestos Detected	-	400 m²	-	-	-	-	90

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	L1 / Southeast Wing / Ceiling Space, All surfaces, Throughout	Dust	Asbestos	A10687	No Asbestos Detected	-	800 m²	-	-	-	-	91
Internal	L1 / Southeast Wing / Ceiling Space, Central, Pipework	Lagging	Asbestos	Previously Sampled MB14.2	Amosite Asbestos Detected	Friable	50 m	Fair	Medium	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	92
Internal	L1 / Southeast Wing / Ceiling Space, North, Stored on Ledge	Woven Material	Asbestos	754-NTLEN347071-1Main Building339A28	Suspected Asbestos	Friable	2 m²	Fair	Low	Prior to refurbishment or demolition	Unknown material sighted from access hatch. Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	93
Internal	L1 / Southeast Wing / Ceiling Space, South, Old Water Tanks	Moulded Fibre Cement	Asbestos	754-NTLEN347071-1Main Building339A29	Suspected Asbestos	Non-Friable	2 Units	Stable	Low	Prior to refurbishment or demolition	Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	94
Internal	L1 / Southeast Wing / Ceiling Space, Waterproofing to Underside of Roof	Bituminous Material	Asbestos	754-NTLEN347071-	Suspected Asbestos	Non-Friable	800 m²	Fair	Low	Prior to refurbishment or demolition	Height restriction. Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos	95

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
				1Main Building339A30							removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	L1 / Southeast Wing / Central Corridor and Rooms 2002, 2003, 2004, 2005, 2006, 2010, 2011, 2015, 2016, 2017, 2018, 2020, 2023, 2024, 2026 and 2029	Vinyl Floor Tiles (Brown)	Asbestos	Previously Sampled MB07.1	Chrysotile Asbestos Detected	Non-Friable	400 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	96
Internal	L1 / Southeast Wing / Room 2006, Wall Cavity, Pipework	Lagging	Asbestos	Previously Sampled MB14.10	Amosite Asbestos Detected	Friable	5 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	97
Internal	L1 / Southeast Wing / Room 2014, Wall Cavity, Pipework	Lagging	Asbestos	Previously Sampled MB14.9	Amosite Asbestos Detected	Friable	5 m	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	98
Internal	L1 / Southeast Wing / Rooms 2033 and 2034, Below Carpet, Floor Covering	Vinyl Floor Tiles (Brown)	Asbestos	Previously Sampled MB07.2	Chrysotile Asbestos Detected	Non-Friable	90 m²	Unknown	Low	Prior to refurbishment or demolition	Not accessible. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in	99

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	L2 / Lift Motor Room / Adjacent Motor, Wire Insulation	Woven Material	Asbestos	754-NTLEN347071-1Main Building339A26	Suspected Asbestos	Friable	2 m	Fair	Low	Prior to refurbishment or demolition	Live electrical hazard. Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	100
Internal	L2 / Lift Motor Room / Central Electrical Cabinet, Flash Arrestors	Fibre Cement Sheeting	Asbestos	754-NTLEN347071-1Main Building339A27	Suspected Asbestos	Non-Friable	1 m ²	Stable	Low	Prior to refurbishment or demolition	Live electrical hazard. Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	101
Internal	L2 / Lift Motor Room / Electrical Cabinet	Bituminous Backing Board	Asbestos	754-NTLEN347071-1Main Building339A25	Suspected Asbestos	Non-Friable	1 m ²	Poor	Low	Prior to refurbishment or demolition	Live electrical hazard. Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	102
Internal	L2 / Lift Motor Room / Electrical Cabinet	Dust	Asbestos	A10686	Chrysotile Asbestos Detected	Friable	0.5 m ²	Poor	High	Prior to refurbishment or demolition	Restrict access and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant	103

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	L2 / Lift Motor Room / Electrical Cabinet, Wire Insulation	Woven Material	Asbestos	754-NTLEN347071-1Main Building339A23	Suspected Asbestos	Friable	1 m	Fair	Low	Prior to refurbishment or demolition	Live electrical hazard. Confirm status. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	104
Internal	L2 / Lift Motor Room / Lift Motor	Friction Pads	Asbestos	754-NTLEN347071-1Main Building339A24	Suspected Asbestos	Non-Friable	2 Units	Stable	Low	Prior to refurbishment or demolition	Live plant hazard. Confirm status. Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	105
External	GF / Central Wing / Central Courtyard, Windows & Frames, Throughout	White Paint	Lead Paint	L18543.1	Lead Detected (1.8% w/w)	-	20 m	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	106
External	GF / Central Wing / Northern Courtyard, Ductwork, Throughout	Grey (Light) Paint	Lead Paint	L18544	Lead Detected (0.22% w/w)	-	10 m²	Stable	Very Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct	107

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											a risk assessment to determine the level of remediation controls required.	
External	GF / Central Wing / Northern Courtyard, Timber Window Frames	White Paint	Lead Paint	L18543	Lead Detected (1.8% w/w)	-	10 m	Stable	Very Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	108
External	GF / Southeast Wing / Door & Frames, Various Throughout	Pink (Light) Paint	Lead Paint	L18552	Lead Detected (0.02% w/w)	-	25 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	109
External	GF / Southeast Wing / Door & Frames, Various Throughout	Purple (Light) Paint	Lead Paint	L18548	Lead Detected (0.15% w/w)	-	40 m²	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	110
External	GF and L1 / Southeast Wing / Throughout, Timber Window Frames	White Paint	Lead Paint	L18550	Lead Detected (4.7% w/w)	-	50 Units	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct	111

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											a risk assessment to determine the level of remediation controls required.	
Internal	GF / All Areas / Various Throughout, Walls	Light Purple Paint	Lead Paint	L18530.1	Lead Detected (1.2 % w/w)	-	2000 m²	Stable	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	112
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Walls	White Paint	Lead Paint	L18551	Lead Detected (0.099% w/w)	-	20 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	113
Internal	GF / Central Wing, North Section / Plant Room 1073, Floor	Cream Paint	Lead Paint	L18540	Lead Detected (0.03% w/w)	-	30 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	114
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Walls	White Paint	Lead Paint	L18546	Lead Detected (0.02% w/w)	-	20 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	115

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Plant Doom 1060 / Walls	Cream Paint	Lead Paint	L18536	Lead Detected (8.7% w/w)	-	30 m²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	116
Internal	GF / Central Wing, Ward A & B / Ceiling Space, Brickwork Lining	White Paint	Lead Paint	L18538	Lead Detected (4.1% w/w)	-	50 m²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	117
Internal	GF / Southeast Wing / All Areas, Walls	Light Purple Paint	Lead Paint	L18530	Lead Detected (1.2 % w/w)	-	1000 m²	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	118
Internal	L1 / Southeast Wing / All Areas, Walls	Cream Paint	Lead Paint	L18534	Lead Detected (0.30% w/w)	-	1000 m²	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct	119

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											a risk assessment to determine the level of remediation controls required.	
Internal	L2 / Lift Motor Room / Lift Motor	Green Paint	Lead Paint	L18532	Lead Detected (2.1 % w/w)	-	5 m²	Fair	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	120
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Throughout	Dust	Lead Dust	L18549	Lead Detected (970mg/kg)	-	15 m²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	121
Internal	GF / Central Wing, North Section / Ceiling Space, Throughout	Dust	Lead Dust	L18541	Lead Detected (49mg/kg)	-	400 m²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	122

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Plant Doom 1060, Throughout	Dust	Lead Dust	L18535	Lead Detected (52,000 mg/kg)	-	20 m ²	Poor	High	-	>1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Implement intermediate control measures. Conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust. Restrict access in the interim.	123
Internal	GF / Central Wing, North Section / Plant Room 1073, Throughout	Dust	Lead Dust	L18539	Lead Detected (550 mg/kg)	-	30 m ²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	124
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space	Dust	Lead Dust	L18545	Lead Detected (340mg/kg)	-	120 m ²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	125
Internal	GF / Central Wing, Ward A & B / Ceiling Space, All surfaces, Throughout	Dust	Lead Dust	L18537	Lead Detected (900mg/kg)	-	200 m ²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any	126

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											activities including refurbishment or demolition that may disturb the dust.	
Internal	GF / ED Wing / Ceiling Space, On top of Ceiling, Throughout	Dust	Lead Dust	L18542	Lead Detected (52 mg/kg)	-	160 m²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	127
Internal	GF / Southeast Wing / Southern Sub-Floor Area, Throughout	Dust	Lead Dust	L18547	Lead Detected (740mg/kg)	-	400 m²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	128
Internal	GF and L1 / Southeast Wing / Ceiling Space, All surfaces, Throughout	Dust	Lead Dust	L18424	Lead Detected (1,800 mg/kg)	-	1,500 m²	Poor	Medium	-	>1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Implement intermediate control measures. Conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	129

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	L2 / Lift Motor Room / On Floor	Dust	Lead Dust	L18533	Lead Detected (3,300 mg/kg)	-	30 m²	Poor	Medium	-	>1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Implement intermediate control measures. Conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	130
External	GF / Central Wing / Central Alleyway, Pipework debris	Insulation Material	SMF	754-NTLEN347071-1Main Building493S13	Suspected SMF	-	10 m²	-	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)]. High damage or delamination of materials. Visible debris.	131
External	GF / Central Wing / Central Courtyard, Boilers and Associated Pipework	Insulation Material	SMF	754-NTLEN347071-1Main Building339S2	Suspected SMF	-	2 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	132
External	GF / Central Wing / Central Courtyard, Pipework, Central	Insulation Material	SMF	754-NTLEN347071-1Main Building493S14	Suspected SMF	-	10 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	133
External	GF / Central Wing / Northern Boiler Area, Boilers	Insulation Material	SMF	754-NTLEN347071-	Suspected SMF	-	2 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	134

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
				1Main Building339S1								
Internal	GF / All Areas / Ceiling Space, Ductwork	Insulation Material	SMF	754- NTLEN347071- 1Main Building339S12	Suspected SMF	-	1000 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	135
Internal	GF / All Areas / Ceiling Space, Pipework	Insulation Material	SMF	754- NTLEN347071- 1Main Building339S13	Suspected SMF	-	1000 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	136
Internal	GF / All Areas / Ceiling Space, Throughout	Sarking Insulation	SMF	754- NTLEN347071- 1Main Building339S14	Suspected SMF	-	4000 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	137
Internal	GF / All Areas / Staff Rooms and Kitchens, Water Heaters	Insulation Material	SMF	754- NTLEN347071- 1Main Building339S9	Suspected SMF	-	20 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	138

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Boilers	Insulation Material	SMF	754-NTLEN347071-1Main Building493S1	Suspected SMF	-	2 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	139
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Pipework	Insulation Material	SMF	754-NTLEN347071-1Main Building493S3	Suspected SMF	-	20 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	140
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Pipework Debris	Insulation Material	SMF	754-NTLEN347071-1Main Building493S4	Suspected SMF	-	10 m²	-	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)]. High damage or delamination of materials. Visible debris.	141
Internal	GF / Central Wing, Day Surgery/Recovery / Plant Room, Water Heater	Insulation Material	SMF	754-NTLEN347071-1Main Building493S2	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	142
Internal	GF / Central Wing, North Section / Ceiling Space, Ductwork, Throughout	Insulation Material	SMF	754-NTLEN347071-1Main Building493S22	Suspected SMF	-	60 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	143

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Ceiling Space, Flexible Ductwork, Throughout	Insulation Material	SMF	754-NTLEN347071-1Main Building493S20	Suspected SMF	-	100 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	144
Internal	GF / Central Wing, North Section / Ceiling Space, Sarking, Roof Lining	Insulation Material	SMF	754-NTLEN347071-1Main Building493S21	Suspected SMF	-	600 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	145
Internal	GF / Central Wing, North Section / Plant Room 1073, Pipework Above Boilers	Insulation Material	SMF	754-NTLEN347071-1Main Building339S3	Suspected SMF	-	20 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	146
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Ductwork	Insulation Material	SMF	754-NTLEN347071-1Main Building493S7	Suspected SMF	-	50 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	147
Internal	GF / Central Wing, North Section / Plant Room 1119, Ceiling Space, Insulation Batts	Insulation Material	SMF	754-NTLEN347071-1Main Building493S8	Suspected SMF	-	50 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	148

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, North Section / Plant Room 1119, Ductwork	Insulation Material	SMF	754-NTLEN347071-1Main Building493S6	Suspected SMF	-	10 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	149
Internal	GF / Central Wing, North Section / Plant Room 1119, Pipework	Insulation Material	SMF	754-NTLEN347071-1Main Building493S5	Suspected SMF	-	20 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	150
Internal	GF / Central Wing, North Section / Sub-Floor Area, Pipework	Insulation Material	SMF	754-NTLEN347071-1Main Building493S9	Suspected SMF	-	60 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	151
Internal	GF / Central Wing, Ward A & B / Ceiling Space, Ductwork	Insulation Material	SMF	754-NTLEN347071-1Main Building493S16	Suspected SMF	-	40 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	152
Internal	GF / Central Wing, Ward A & B / Ceiling Space, Flexible ductwork	Insulation Material	SMF	754-NTLEN347071-1Main Building493S15	Suspected SMF	-	60 m	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	153

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Central Wing, Ward A & B / Ceiling Space, Pillow insulation, Penetrations adjacent ladder	Insulation Material	SMF	754-NTLEN347071-1Main Building493S19	Suspected SMF	-	2 Units	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	154
Internal	GF / ED Wing / Ceiling Space, Ductwork, Various Throughout	Insulation Batts	SMF	754-NTLEN347071-1Main Building493S11	Suspected SMF	-	40 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	155
Internal	GF / ED Wing / Ceiling Space, Insulation Batts, Throughout	Insulation Material	SMF	754-NTLEN347071-1Main Building493S10	Suspected SMF	-	120 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	156
Internal	GF / ED Wing / Ceiling Space, Sarking, Roof Lining	Insulation Material	SMF	754-NTLEN347071-1Main Building493S12	Suspected SMF	-	150 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)]. Low Damage.	157
Internal	GF / Southeast Wing / Central Corridor, Central	Compressed Ceiling Tiles	SMF	754-NTLEN347071-1Main Building339S8	Suspected SMF	-	40 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	158

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Southeast Wing / Room 1191, Water Heater	Insulation Material	SMF	754-NTLEN347071-1Main Building339S7	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	159
Internal	L1 / Southeast Wing / Ceiling Space, North, Old Metal Water Tank	Insulation Material	SMF	754-NTLEN347071-1Main Building339S10	Suspected SMF	-	1 Unit	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	160
Internal	GF / Southeast Wing / Southern Sub-Floor Area, Light Fittings	Capacitor(s)	PCB	754-NTLEN347071-1Main Building339P1	Suspected PCB	-	10 Units	-	Very Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.	161
External	GF / Central Wing / Central Courtyard, AC Unit	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1Main Building339O11	Non ODS Refrigerant	-	1 Unit	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	162
External	GF / Central Wing / North Side, Northern Courtyard and South Side, AC Units	R410A and R32 Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1Main Building339O9	Non ODS Refrigerant	-	18 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	163

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Central Wing / Northern Boiler Area, Chillers	Unknown Refrigerant	ODS	754-NTLEN347071-1Main Building339O10	Suspected ODS	-	2 Units	-	Very Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment and ensure they are appropriately decanted and disposed of by a licensed contractor prior to refurbishment or demolition in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	164
External	GF / Central Wing / South Side	Unknown Refrigerant	ODS	754-NTLEN347071-1Main Building339O4	Suspected ODS	-	2 Units	-	Very Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment and ensure they are appropriately decanted and disposed of by a licensed contractor prior to refurbishment or demolition in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	165
External	GF / Central Wing / South Side, AC Unit	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1Main Building339O3	Non ODS Refrigerant	-	1 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	166
External	GF / ED Wing / North Side, AC Unit	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1Main Building339O7	Non ODS Refrigerant	-	3 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	167

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / West Wing / South Side	R32 Refrigerant	ODS	754-NTLEN347071-1Main Building339O2	Non ODS Refrigerant	-	1 Unit	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	168
External	GF / West Wing / South, East and West Sides	R410A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1Main Building339O1	Non ODS Refrigerant	-	9 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	169
External	GF and L1 / Southeast Wing / East and West Sides, AC Units	R410A and R32 Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-1Main Building339O6	Non ODS Refrigerant	-	12 Units	-	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	170
Internal	GF / Central Wing, North Section / Pharmacy 1075, AC Unit	Unknown Refrigerant	ODS	754-NTLEN347071-1Main Building339O13	Suspected ODS	-	1 Unit	-	Very Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment and ensure they are appropriately decanted and disposed of by a licensed contractor prior to refurbishment or demolition in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	171
Internal	GF / Central Wing, North Section / Plant Room 1119, Chiller	R404A Hydrofluorocarbon (HFC)	ODS	754-NTLEN347071-	Non ODS Refrigerant	-	1 Unit	-	-	-	Suspected negative due to age and appearance.	172

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
				1Main Building493O1								
Internal	GF / Central Wing, Ward A / Staff Room 1118, AC Unit	Unknown Refrigerant	ODS	754- NTLEN347071- 1Main Building339O12	Suspected ODS	-	1 Unit	-	Very Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment and ensure they are appropriately decanted and disposed of by a licensed contractor prior to refurbishment or demolition in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	173
External	L1 / Radio Transmitter Tower	-	No Access	-	-	-	-	-	-	-	RFR hazard. No or limited access potential hazardous materials present within inaccessible areas	174
Internal	GF / Sub-Floor Areas	-	No Access	-	-	-	-	-	-	-	Limited access and labelled as confined space. No or limited access potential hazardous materials present within inaccessible areas	175

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital Main Building 16072024

Client: NSW Health Infrastructure

Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma

E-mail: Les.Palma@turntown.com

Date Sampled: 11-07-2024

Date Analysed: 17-07-2024

Date Authorised: 29-07-2024

Sampled By: Ben McCann

Site: Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
Accreditation No:2220
Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Asbestos in Bulk Samples and Non-homogenous Material

Test Method: Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 43

Approved Identifier
Panika Wongchanda

Approved Signatory
Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A10645	External, GF, Central Wing, South Side, Metal Window Frames, Window Caulking - Grey hardened mastic material	26 x 7 x 5 mm	Chrysotile (white asbestos) detected
A10646	Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Throughout, Dust - Brown non-homogenous fibrous dust & debris	12.0 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10647	Internal, GF, Southeast Wing, Southern Sub-Floor Area, Central, Pipework, Gasket Material - Black rubbery gasket material	18 x 5 x 4 mm	No asbestos fibres detected Organic fibres detected
A10648	Internal, GF, Southeast Wing, Southern Sub-Floor Area, Central, Debris, Woven Material - White painted brown fibrous woven sheet material	100 x 16 x 2 mm	No asbestos fibres detected Organic fibres detected
A10649	Internal, GF, Southeast Wing, Southern Sub-Floor Area, Throughout, Dust - Brown non-homogenous fibrous dust & debris	6.5 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10650	External, GF, ED Wing, Main Entrance, Construction Joint Mastic - Brown rubbery mastic material & red cement material	21 x 10 x 3 mm	No asbestos fibres detected
A10651	External, GF, ED Wing, Emergency entrance, Wall lining, Southwest, Compressed Cement Sheeting - Blue painted beige fibre cement sheet material	20 x 7 x 2 mm	No asbestos fibres detected Organic fibres detected

Sample No.	Location & Description	Sample Size (~)	Results
A10652	External, GF, ED Wing, Roof, Gable verge lining, East & West, Fibre Cement Sheeting - Brown painted beige layered fibre cement sheet material	42 x 18 x 4 mm	No asbestos fibres detected Organic fibres detected
A10653	External, GF, ED Wing, Eave, Throughout, Fibre Cement Sheeting - Beige fibrous organic mica sheet material	25 x 15 x 5 mm	No asbestos fibres detected Organic fibres detected
A10654	External, GF, Central Wing, Northern Boiler Area, Residue to Pipework, Lagging - Brown vitreous fibrous insulation material	25 x 10 x 1 mm	No asbestos fibres detected Synthetic mineral fibres detected
A10655	Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Ceiling, Fibre Cement Sheeting - Grey compressed fibre cement sheet material	60 x 53 x 5 mm	Chrysotile (white asbestos) detected
A10656	Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, On top of ceiling, Dust - Brown non-homogenous fibrous dust & debris	7.5 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10657	External, GF, Central Wing, Northern Boiler Area, Ductwork Flange Joints, Mastic Sealant - Blue rubbery mastic material	33 x 8 x 2 mm	No asbestos fibres detected
A10658	External, GF, Central Wing, Northern Boiler Area, Infill Panel Above Oxygen Storage, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	17 x 7 x 4 mm	No asbestos fibres detected Organic fibres detected
A10659	External, GF, Central Wing, North Side, Entrance Awning Adjacent Room 1048, Fibre Cement Sheeting - White painted beige fibre cement sheet material	25 x 10 x 2 mm	No asbestos fibres detected Organic fibres detected
A10661	External, GF, Central Wing, North Side, Eaves, Fibre Cement Sheeting - Beige layered fibre cement sheet material	14 x 8 x 3 mm	No asbestos fibres detected Organic fibres detected
A10662	External, GF, West Wing, Western Covered Area Adjacent Kitchen, Awning and Infill Panels, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	31 x 12 x 5 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10663	External, GF, West Wing, Western Entrance Awning, Fibre Cement Sheeting - White painted peach fibre cement sheet material	15 x 10 x 2 mm	No asbestos fibres detected Organic fibres detected
A10664	External, ROOF, Southeast Wing, Northwest Lower Roof Section, Waterproofing, Bituminous Membrane - Black bituminous material	30 x 20 x 3 mm	Chrysotile (white asbestos) detected
A10665	External, L1 , Southeast Wing, Throughout, Eaves, Fibre Cement Sheeting - Grey compressed fibre cement sheet material	31 x 12 x 2 mm	Chrysotile (white asbestos) detected
A10666	External, ROOF, Central Wing, South Section, Eaves, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	27 x 12 x 3 mm	No asbestos fibres detected Organic fibres detected
A10668	External, ROOF, ED Wing, Eaves, Throughout, Fibre Cement Sheeting - Beige layered fibre cement sheet material	45 x 18 x 2 mm	No asbestos fibres detected Organic fibres detected
A10669	External, ROOF, Central Wing, North Section, Infill panel, Adjacent ladder access, Fibre Cement Sheeting - Beige fibre cement sheet material	25 x 10 x 2 mm	No asbestos fibres detected Organic fibres detected
A10670	External, ROOF, Central Wing, North Section, Central Area, Ductwork Flange Joints, Mastic Sealant - Grey rubbery mastic material	28 x 18 x 4 mm	No asbestos fibres detected
A10671	Internal, GF, Central Wing, North Section, Corridor 1031, Fibrous Backed Vinyl Sheet - Brown vinyl sheet, fibrous backing material & amber adhesive	57 x 37 x 3 mm	No asbestos fibres detected Organic fibres detected Synthetic mineral fibres detected
A10672	External, GF, Central Wing, Central Courtyard, Wall lining, Entry, Fibre Cement Sheeting - Grey compressed fibre cement sheet material	32 x 13 x 5 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Crocidolite (blue asbestos) detected
A10673	External, GF, Central Wing, Central Courtyard, Timber Window Frames, Window Caulking - Beige hardened mastic material	45 x 10 x 8 mm	No asbestos fibres detected
A10674	Internal, GF, Central Wing, North Section, Plant Room 1073, Pipework, Gasket Material - White painted beige fibrous gasket material	30 x 12 x 4 mm	Chrysotile (white asbestos) detected
A10675	Internal, GF, Central Wing, North Section, Plant Room 1073, Infill Panels, Fibre Cement Sheeting - Beige layered fibre cement sheet material	27 x 16 x 5 mm	No asbestos fibres detected Organic fibres detected

Sample No.	Location & Description	Sample Size (~)	Results
A10676	Internal, GF, Central Wing, North Section, Plant Room 1073, Boiler, Large Gasket, Gasket Material - Beige fibrous gasket material	20 x 14 x 4 mm	Chrysotile (white asbestos) detected
A10677	Internal, GF, Central Wing, North Section, Plant Room 1073, Packing to Penetration Above Boilers, Fibre Cement Sheeting - Beige layered fibre cement sheet material	30 x 18 x 5 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10678	Internal, GF, Central Wing, North Section, Ceiling Space, Throughout, Debris, Fibre Cement Sheeting - Beige layered fibre cement sheet material	82 x 50 x 5 mm	No asbestos fibres detected Organic fibres detected
A10679	Internal, GF, Central Wing, North Section, Ceiling Space, Throughout, Dust - Brown/white non-homogenous fibrous dust & debris	3.4 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10680	Internal, GF, Central Wing, Ward A & B, Ceiling Space, All surfaces, Throughout, Dust - Brown non-homogenous fibrous dust & debris	3.2 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10681	Internal, GF, Central Wing, Ward B, Floor covering, Room 1178, Throughout, Vinyl Floor Tiles (white) A. White vinyl tile B. Amber adhesive	26 x 45 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10682	Internal, GF, Central Wing, Ward B, Various Throughout, Floor Covering (Mixed in With Blue Tiles), Vinyl Floor Tiles (White) A. White vinyl tile B. Amber adhesive	52 x 28 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected
A10683	Internal, GF, Central Wing, North Section, Staff Room 1058, Sink Pad, Bituminous Material - Black bituminous material	35 x 15 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected
A10684	Internal, GF, Central Wing, North Section, Plant Room 1060, Infill Panels, Fibre Cement Sheeting - Beige layered fibre cement sheet material	37 x 35 x 4 mm	No asbestos fibres detected Organic fibres detected
A10686	Internal, L2 , Lift Motor Room, Electrical Cabinet, Dust - Brown non-homogenous fibrous dust & debris Black bituminous material containing Chrysotile (white asbestos) found within the sample raw weight: ~ 0.1486 g	5.2 g	Chrysotile (white asbestos) detected Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10687	Internal, L1 , Southeast Wing, Ceiling Space, All surfaces, Throughout, Dust - Brown non-homogenous fibrous dust & debris	2.1 g	No asbestos detected above the reporting limit of 0.1 g/kg Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A10688	Internal, GF, Central Wing, North Section, Sub-Floor Area, Central North, Adjacent Hatch, Fibre Cement Sheeting - Grey compressed fibre cement sheet material	35 x 30 x 2 mm	Chrysotile (white asbestos) detected
A10689	Internal, GF, Central Wing, Day Surgery/Recovery, Ceiling Space Above Reception Area, Pipework, Gasket Material - Brown fibrous gasket material	25 x 17 x 2 mm	Chrysotile (white asbestos) detected
A10685	Internal, GF, Southeast Wing, Room 1191, Floor Covering, Vinyl Floor Tiles (Brown) - Brown vinyl tile & amber adhesive A. Green vinyl tile B. Amber adhesive	64 x 32 x 3 mm	A. Chrysotile (white asbestos) detected B. No asbestos fibres detected

CERTIFICATE OF ANALYSIS 356688

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN34707-1, Cessnock Hospital Survey</u>
Number of Samples	10 Dust, 13 Paint
Date samples received	16/07/2024
Date completed instructions received	16/07/2024

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 solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/07/2024
Date of Issue	23/07/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager
 Loren Bardwell, Development Chemist

Authorised By

Nancy Zhang, Laboratory Manager

Lead in Paint						
Our Reference	UNITS	356688-2	356688-3	356688-5	356688-7	356688-9
Your Reference		L18530	L18532	L18534	L18536	L18538
Date Sampled		11/07/2024	11/07/2024	11/07/2024	11/07/2024	11/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024	18/07/2024	18/07/2024
Lead in paint	%w/w	1.2	2.1	0.30	8.7	4.1

Lead in Paint						
Our Reference	UNITS	356688-11	356688-14	356688-15	356688-17	356688-19
Your Reference		L18540	L18543	L18544	L18546	L18548
Date Sampled		11/07/2024	11/07/2024	11/07/2024	11/07/2024	11/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024	18/07/2024	18/07/2024
Lead in paint	%w/w	0.03	1.8	0.22	0.02	0.15

Lead in Paint				
Our Reference	UNITS	356688-21	356688-22	356688-23
Your Reference		L18550	L18551	L18552
Date Sampled		11/07/2024	11/07/2024	11/07/2024
Type of sample		Paint	Paint	Paint
Date prepared	-	17/07/2024	17/07/2024	17/07/2024
Date analysed	-	18/07/2024	18/07/2024	18/07/2024
Lead in paint	%w/w	4.7	0.099	0.02

Lead (dust)						
Our Reference	UNITS	356688-1	356688-4	356688-6	356688-8	356688-10
Your Reference		L18424	L18533	L18535	L18537	L18539
Date Sampled		11/07/2024	11/07/2024	11/07/2024	11/07/2024	11/07/2024
Type of sample		Dust	Dust	Dust	Dust	Dust
Date prepared	-	23/07/2024	23/07/2024	23/07/2024	23/07/2024	23/07/2024
Date analysed	-	23/07/2024	23/07/2024	23/07/2024	23/07/2024	23/07/2024
Lead	mg/kg	1,800	3,300	52,000	900	550

Lead (dust)						
Our Reference	UNITS	356688-12	356688-13	356688-16	356688-18	356688-20
Your Reference		L18541	L18542	L18545	L18547	L18549
Date Sampled		11/07/2024	11/07/2024	11/07/2024	11/07/2024	11/07/2024
Type of sample		Dust	Dust	Dust	Dust	Dust
Date prepared	-	23/07/2024	23/07/2024	23/07/2024	23/07/2024	23/07/2024
Date analysed	-	23/07/2024	23/07/2024	23/07/2024	23/07/2024	23/07/2024
Lead	mg/kg	49	52	340	740	970

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES.
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 754-NTLEN34707-1, Cessnock Hospital Survey

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			17/07/2024	9	17/07/2024	17/07/2024		17/07/2024	[NT]
Date analysed	-			18/07/2024	9	18/07/2024	18/07/2024		18/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	9	4.1	5.4	27	102	[NT]

Client Reference: 754-NTLEN34707-1, Cessnock Hospital Survey

QUALITY CONTROL: Lead (dust)						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/07/2024	4	23/07/2024	23/07/2024		23/07/2024	[NT]
Date analysed	-			23/07/2024	4	23/07/2024	23/07/2024		23/07/2024	[NT]
Lead	mg/kg	1	Metals-020	<1	4	3300	3200	3	98	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

**AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD**

ABN 36 088 095 112

Our ref: ASET64810/ 67990 / 1 - 15
Your ref: 17.1624 - Cessnock Hospital - Main Building
NATA Accreditation No: 14484

29 May 2018

Practical Environmental Solutions
PO Box 167
Mayfield NSW 2304

Attn: Mr Tony Milligan



Accredited for compliance with ISO/IEC 17025.

Dear Tony

Asbestos Identification

This report presents the results of fifteen samples, forwarded by Practical Environmental Solutions on 29 May 2018, for analysis for asbestos.

1 Introduction: Fifteen samples forwarded were examined and analysed for the presence of asbestos.

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).

3. Results : Sample No. 1. ASET64810/ 67990 / 1. MB01 - Window mastic.
Approx dimensions 1.0 cm x 0.5 cm x 0.3 cm
The sample consisted of a fragment of a rubberised mastic material.
No asbestos detected.

Sample No. 2. ASET64810/ 67990 / 2. MB02 - Soffit lining outside Room 1171.
Approx dimensions 1.0 cm x 1.0 cm x 0.5 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
Chrysotile asbestos and Amosite asbestos detected.

Sample No. 3. ASET64810/ 67990 / 3. MB03 - Infill panel outside Room 1171.
Approx dimensions 0.4 cm x 0.3 cm x 0.2 cm
The sample consisted of a fragment of a fibro plaster like material.
Chrysotile asbestos detected.

Sample No. 4. ASET64810/ 67990 / 4. MB04 - FFCS eave soffit lining off Room 1012.
Approx dimensions 4.0 cm x 3.0 cm x 0.5 cm
The sample consisted of fragments of a soft plaster material containing mica like material.
No asbestos detected.

Sample No. 5. ASET64810/ 67990 / 5. MB05 - Asbestos rope to generator.
Approx dimensions 5.0 cm x 0.6 cm x 0.3 cm
The sample consisted of a piece of a fibrous rope of synthetic mineral fibres.
No asbestos detected.

Sample No. 6. ASET64810/ 67990 / 6. MB06 - FFCS infill panels off Room 1102.
Approx dimensions 2.0 cm x 1.0 cm x 0.35 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
No asbestos detected.



Sample No. 7. ASET64810 / 67990 / 7. MB07 - Brown VFTs to level 1.
Approx dimensions 10.0 cm x 6.0 cm x 0.3 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 8. ASET64810 / 67990 / 8. MB08 - Window mastic to ground floor.
Approx dimensions 2.0 cm x 1.0 cm x 0.25 cm
The sample consisted of a fragment of a soft mastic material.
No asbestos detected.

Sample No. 9. ASET64810 / 67990 / 9. MB09 - FFCS ceiling lining.
Approx dimensions 0.5 cm x 0.5 cm x 0.2 cm
The sample consisted of a fragment of fibro plaster cement like material.
Chrysotile asbestos detected.

Sample No. 10. ASET64810 / 67990 / 10. MB10 - Blue VFTs.
Approx dimensions 15.0 cm x 10.0 cm x 0.3 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 11. ASET64810 / 67990 / 11. MB11 - White/Grey VFTs.
Approx dimensions 20.0 cm x 15.0 cm x 0.3 cm
The sample consisted of a fragment of a hard floor tile.
Chrysotile asbestos detected.

Sample No. 12. ASET64810 / 67990 / 12. MB12 - FFCS ceiling lining.
Approx dimensions 5.0 cm x 3.0 cm x 0.5 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
No asbestos detected.

Sample No. 13. ASET64810 / 67990 / 13. MB13 - Awning soffit (emergency entrance).
Approx dimensions 1.0 cm x 1.0 cm x 0.45 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
No asbestos detected.

Sample No. 14. ASET64810 / 67990 / 14. MB14 - Paint room lagging.
Approx dimensions 1.5 cm x 1.2 cm x 0.3 cm
The sample consisted of a soft fibrous material.
Amosite asbestos detected.

Sample No. 15. ASET64810 / 67990 / 15. MB15 - Eave soffit.
Approx dimensions 2.0 cm x 2.0 cm x 0.25 cm
The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.
No asbestos detected.

Analysed and reported by,

Nisansala Maddage. BSc(Hons), Grad Dip (Occ Hyg)
Occupational Hygienist/Approved Identifier
Approved Signatory



Accredited for compliance with ISO/IEC 17025.

Appendix C: Photographs

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Line ID 1: External, GF, Central Wing, Central Courtyard, Timber Window Frames, Window Caulking - No Asbestos Detected



Line ID 2: External, GF, Central Wing, Central Courtyard, Wall Lining, Entry, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



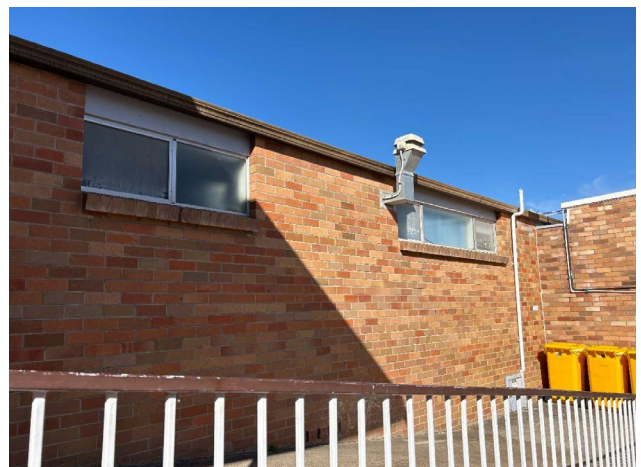
Line ID 2.1: External, GF, Central Wing, Central Courtyard, Wall Lining, Entry, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 3: External, GF, Central Wing, North Side, Eaves, Fibre Cement Sheeting - No Asbestos Detected



Line ID 4: External, GF, Central Wing, North Side, Entrance Awning Adjacent Room 1048, Fibre Cement Sheeting - No Asbestos Detected



Line ID 5: External, GF, Central Wing, North Side, Infill Panels Above Windows, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 6: External, GF, Central Wing, Northern Boiler Area, Ductwork Flange Joints, Mastic Sealant - No Asbestos Detected



Line ID 7: External, GF, Central Wing, Northern Boiler Area, Infill Panel Above Oxygen Storage, Fibre Cement Sheetting - No Asbestos Detected



Line ID 8: External, GF, Central Wing, Northern Boiler Area, Metal Encased Pipework, Lagging - Suspected Asbestos



Line ID 9: External, GF, Central Wing, Northern Boiler Area, Residue to Pipework, Lagging - No Asbestos Detected



Line ID 10: External, GF, Central Wing, Northern Generator Awning, Fibre Cement Sheetting - No Asbestos Detected



Line ID 11: External, GF, Central Wing, South Side, Infill Panels Above Windows, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 12: External, GF, Central Wing, South Side, Metal Window Frames, Window Caulking - Chrysotile Asbestos Detected



Line ID 13: External, GF, Central Wing, Southeast Side, Plant Room, Entrance Door, Fire Door Core - Suspected Asbestos



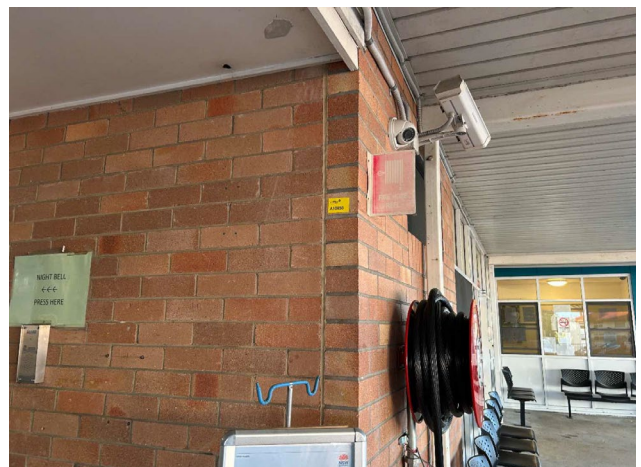
Line ID 13.1: External, GF, Central Wing, Southeast Side, Plant Room, Entrance Door, Fire Door Core - Suspected Asbestos



Line ID 14: External, GF, ED Wing, Eaves, Throughout, Fibre Cement Sheeting - Chrysotile Asbestos Detected



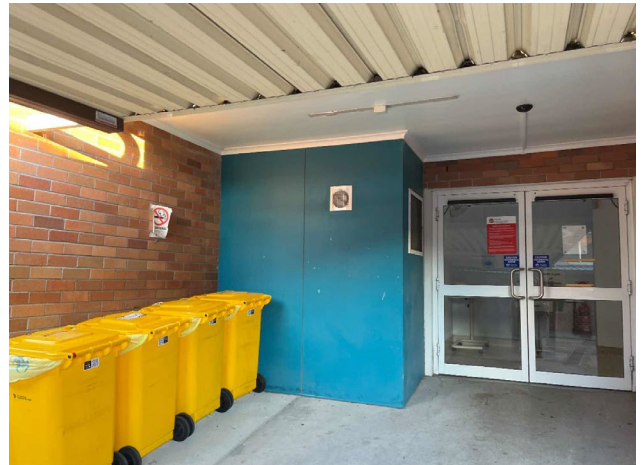
Line ID 15: External, GF, ED Wing, Emergency Entrance, Wall lining, Southwest, Compressed Cement Sheeting - No Asbestos Detected



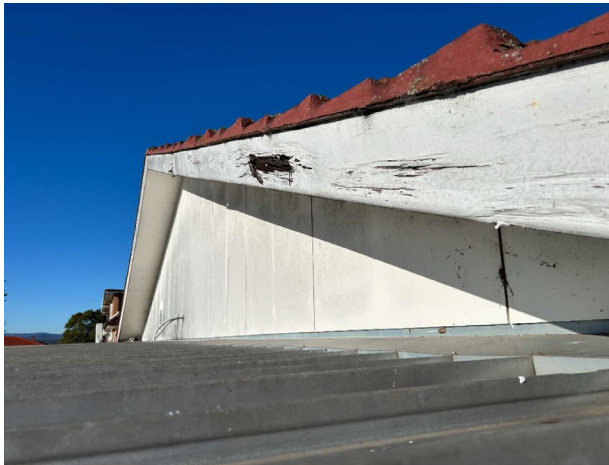
Line ID 16: External, GF, ED Wing, Main Entrance, Construction Joint Mastic - No Asbestos Detected



Line ID 17: External, GF, ED Wing, Main Entrance, Awning, Fibre Cement Sheeting - No Asbestos Detected



Line ID 18: External, GF, ED Wing, Northern Entrance, Wall Lining, Southwest, Compressed Cement Sheeting - No Asbestos Detected



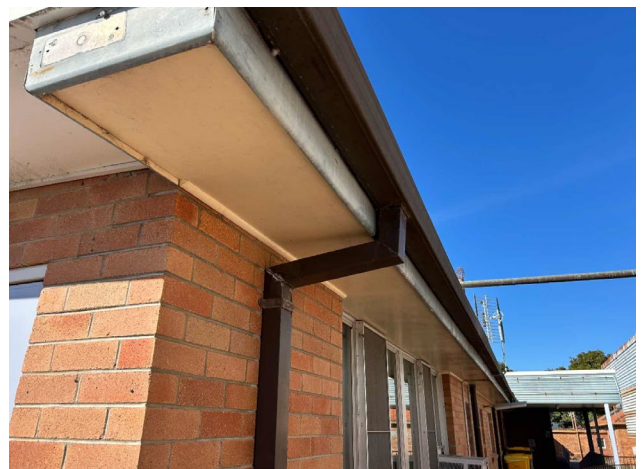
Line ID 19: External, GF, ED Wing, Roof, East and West Sides, Infill Panels Below Roof Gable, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 20: External, GF, ED Wing, Roof, Gable Verge Lining, East & West, Fibre Cement Sheeting - No Asbestos Detected



Line ID 21: External, GF, West Wing, Eastern Entrance Awning, Adjacent Room 1171, Fibre Cement Sheeting - Chrysotile & Amosite Asbestos Detected



Line ID 22: External, GF, West Wing, North Section, Eaves, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 23: External, GF, West Wing, North Section, Infill Panels Above Windows, Fibre Cement Sheetting - No Asbestos Detected



Line ID 23.1: External, GF, West Wing, North Section, Infill Panels Above Eaves, Fibre Cement Sheetting - No Asbestos Detected



Line ID 24: External, GF, West Wing, South Side, Eaves, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 25: External, GF, West Wing, Western Covered Area Adjacent Kitchen, Awning and Infill Panels, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 25.1: External, GF, West Wing, Western Covered Area Adjacent Kitchen, Awning and Infill Panels, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 26: External, GF, West Wing, Western Entrance Awning, Fibre Cement Sheetting - No Asbestos Detected



Line ID 27: External, L1, Southeast Wing, Throughout, Eaves, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 27.1: External, L1, Southeast Wing, Throughout, Eaves, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 28: External, Roof, Central Wing, North Section, Central Area, Ductwork Flange Joints, Mastic Sealant - No Asbestos Detected



Line ID 29: External, Roof, Central Wing, North Section, Central Area, Infill Panels Below Roof Gable, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 30: External, Roof, Central Wing, North Section, Infill Panel, Adjacent Ladder Access, Fibre Cement Sheeting - No Asbestos Detected



Line ID 31: External, Roof, Central Wing, South Section, Eaves, Fibre Cement Sheeting - No Asbestos Detected



Line ID 32: External, Roof, Central Wing, South Section, North Side, Infill Panel, Fibre Cement Sheeting - None Suspected



Line ID 33: External, Roof, ED Wing, Eaves, Throughout, Fibre Cement Sheeting - No Asbestos Detected



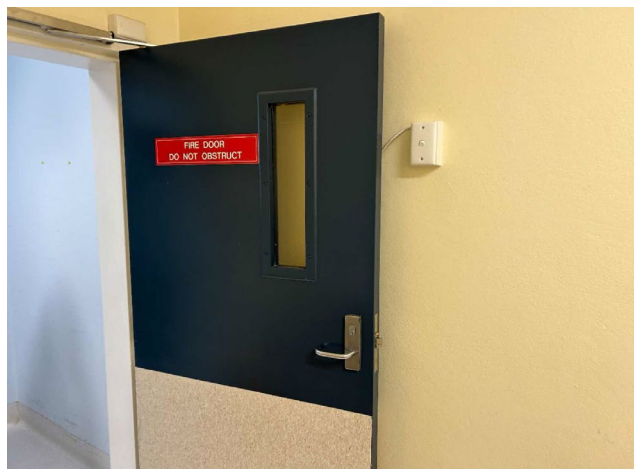
Line ID 34: External, Roof, ED Wing, West Side, Infill Panels, Fibre Cement Sheeting - None Suspected



Line ID 35: External, Roof, Southeast Wing, Northwest Lower Roof Section, Waterproofing, Bituminous Membrane - Chrysotile Asbestos Detected



Line ID 36: Internal, GF, All Areas, Ceiling Space, Various Throughout, Heater Banks to AC Ducting, Internal Lining, Millboard Insulation - Suspected Asbestos



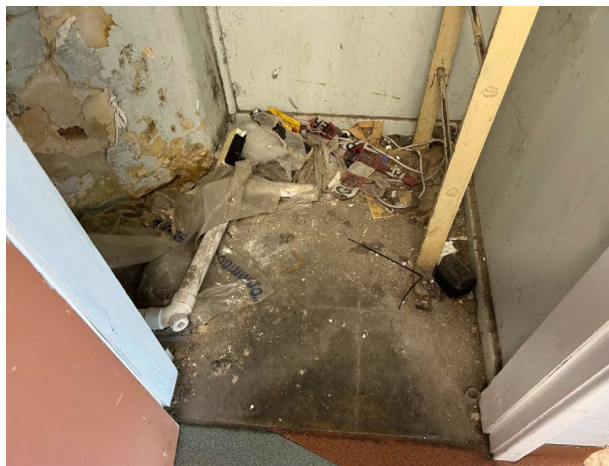
Line ID 37: Internal, GF, All Areas, Various Throughout, Doors, Fire Door Core - None Suspected



Line ID 37.1: Internal, GF, All Areas, Various Throughout, Doors, Fire Door Core - None Suspected



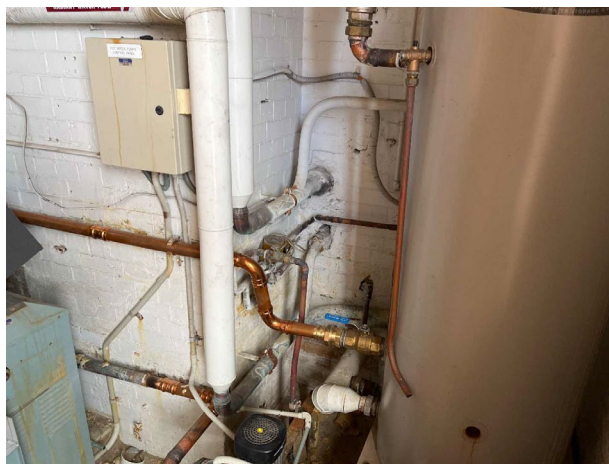
Line ID 38: Internal, GF, Central Wing, Day Surgery/Recovery, Ceiling Space Above Reception Area, Pipework, Gasket Material - Chrysotile Asbestos Detected



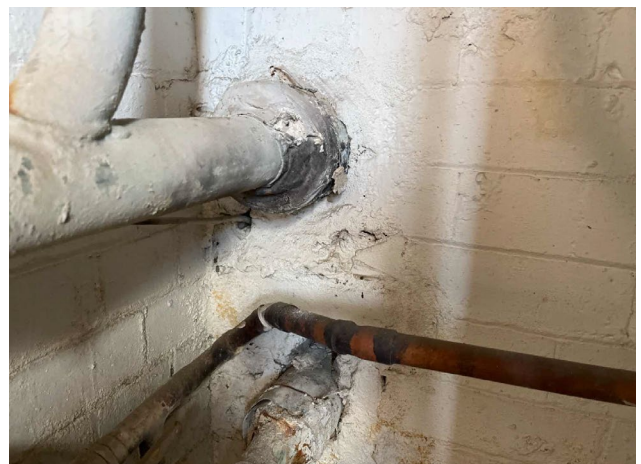
Line ID 39: Internal, GF, Central Wing, Day Surgery/Recovery, Ceiling Space Ladder Access Point Adjacent Reception, Floor Covering, Vinyl Floor Tiles - Chrysotile Asbestos Detected



Line ID 40: Internal, GF, Central Wing, Day Surgery/Recovery, Floor covering, Throughout, Vinyl Floor Tiles (white with grey specks) - Chrysotile Asbestos Detected



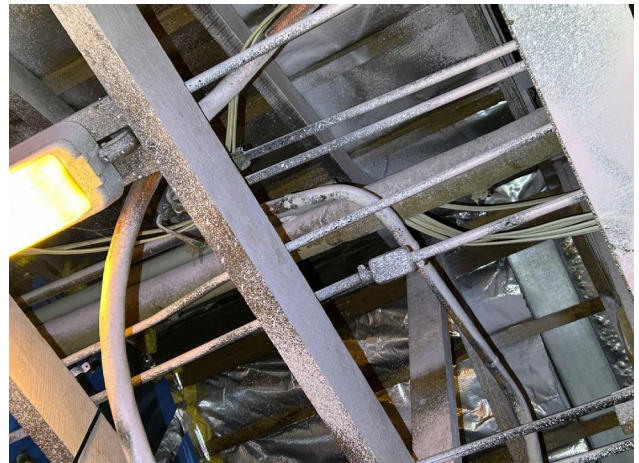
Line ID 41: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Penetration, Pipework, Lagging - Amosite Asbestos Detected



Line ID 41.1: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Penetration, Pipework, Lagging - Amosite Asbestos Detected



Line ID 42: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Throughout, Dust - No Asbestos Detected



Line ID 43: Internal, GF, Central Wing, North Section, Ceiling Space Above Plant Room 1073, Pipework, Lagging - Amosite Asbestos Detected



Line ID 44: Internal, GF, Central Wing, North Section, Ceiling Space, South and East Sides, Walls, Fibre Cement Sheeting – Suspected Asbestos



Line ID 45: Internal, GF, Central Wing, North Section, Ceiling Space, Throughout, Dust - No Asbestos Detected



Line ID 47: Internal, GF, Central Wing, North Section, Corridor 1031, Floor Covering, Fibrous Backed Vinyl Sheet - No Asbestos Detected



Line ID 48: Internal, GF, Central Wing, North Section, Pharmacy 1075 and 1076, Ceiling Space, Lagging - Amosite Asbestos Detected



Line ID 49: Internal, GF, Central Wing, North Section, Pharmacy 1075, Sink Pad, Bituminous Material - Chrysotile Asbestos Detected



Line ID 50: Internal, GF, Central Wing, North Section, Plant Room 1060, Infill Panels, Fibre Cement Sheetting - No Asbestos Detected



Line ID 51: Internal, GF, Central Wing, North Section, Plant Room 1073, Boiler, Large Gasket, Gasket Material - Chrysotile Asbestos Detected



Line ID 51.1: Internal, GF, Central Wing, North Section, Plant Room 1073, Boiler, Large Gasket, Gasket Material - Chrysotile Asbestos Detected



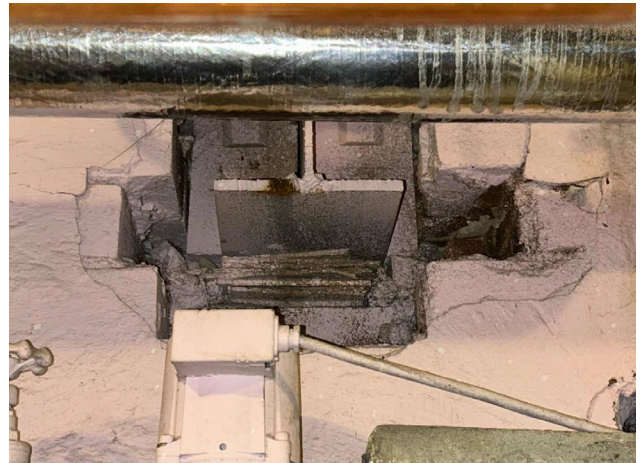
Line ID 52: Internal, GF, Central Wing, North Section, Plant Room 1073, Boilers, Insulation - Suspected Asbestos



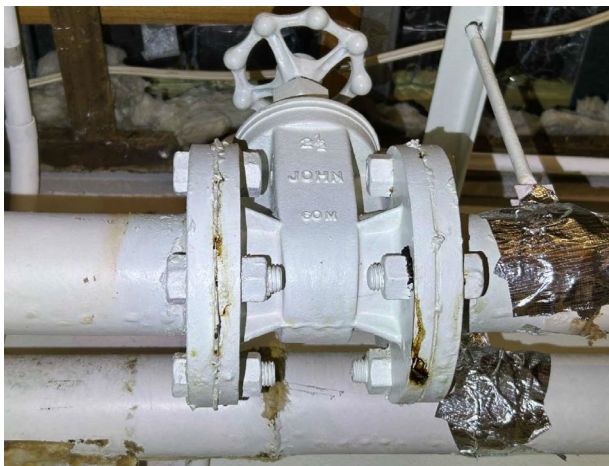
Line ID 53: Internal, GF, Central Wing, North Section, Plant Room 1073, Electrical Switch Board, Bituminous Backing Board - Suspected Asbestos



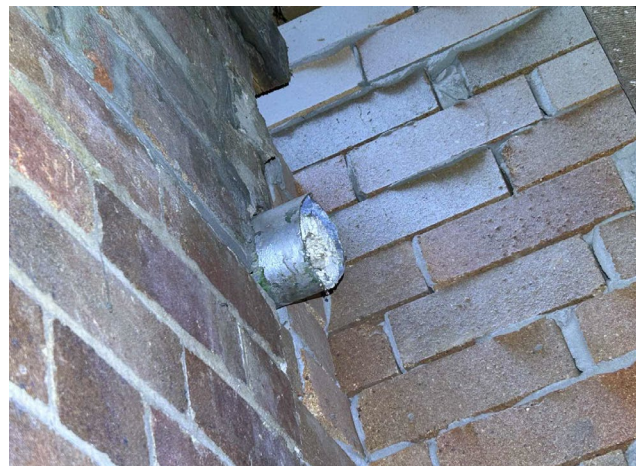
Line ID 54: Internal, GF, Central Wing, North Section, Plant Room 1073, Infill Panels, Fibre Cement Sheeting - No Asbestos Detected



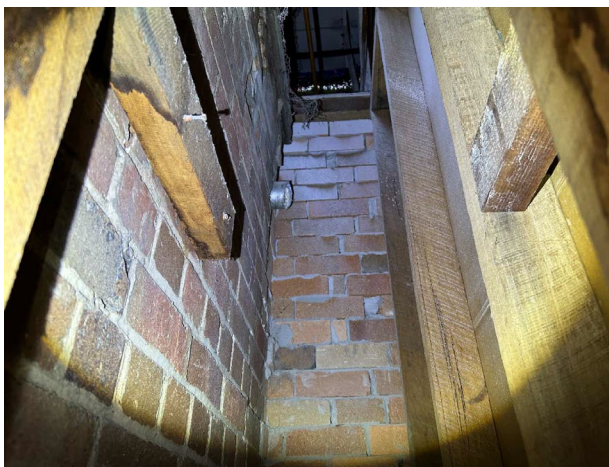
Line ID 55: Internal, GF, Central Wing, North Section, Plant Room 1073, Packing to Penetration Above Boilers, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 56: Internal, GF, Central Wing, North Section, Plant Room 1073, Pipework, Gasket Material - Chrysotile Asbestos Detected



Line ID 57: Internal, GF, Central Wing, North Section, Plant Room 1073, Wall Cavity, Penetration, Lagging - Amosite Asbestos Detected



Line ID 57.1: Internal, GF, Central Wing, North Section, Plant Room 1073, Wall Cavity, Penetration, Lagging - Amosite Asbestos Detected



Line ID 58: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Ceiling, Fibre Cement Sheeting - Chrysotile Asbestos Detected



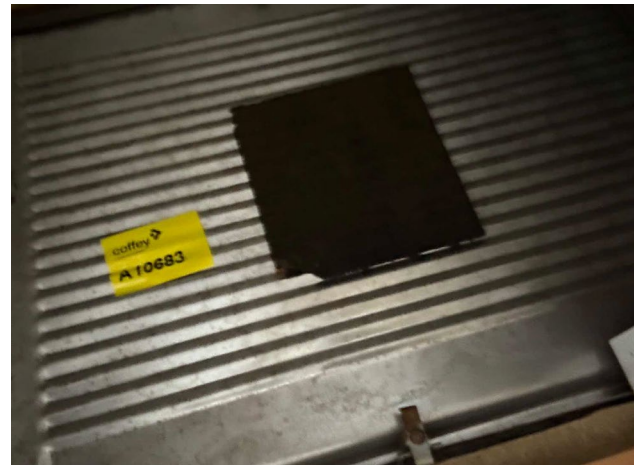
Line ID 59: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Debris, Fibre Cement Debris - Chrysotile Asbestos Detected



Line ID 60: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, on Top of Ceiling, Dust - No Asbestos Detected



Line ID 61: Internal, GF, Central Wing, North Section, Room 1033, Floor Covering, Fibrous Backed Vinyl Sheet - No Asbestos Detected



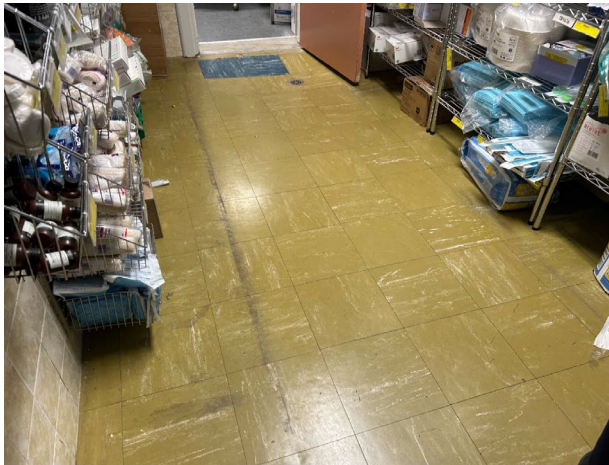
Line ID 62: Internal, GF, Central Wing, North Section, Staff Room 1058, Sink Pad, Bituminous Material - Chrysotile Asbestos Detected



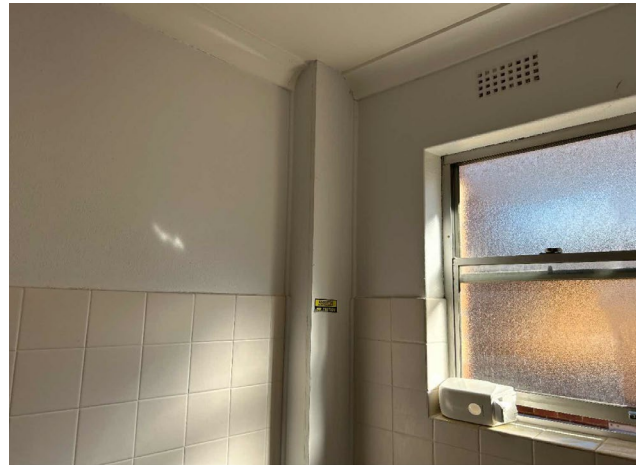
Line ID 63: Internal, GF, Central Wing, North Section, Storeroom 1062, Fibrous Backed Vinyl Sheet - No Asbestos Detected



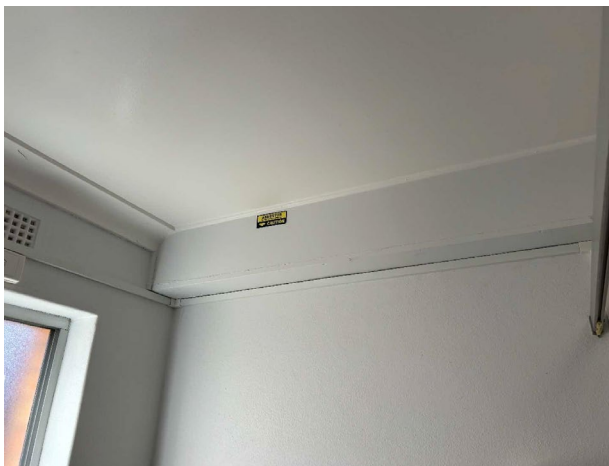
Line ID 64: Internal, GF, Central Wing, North Section, Sub-Floor Area, Central North, Adjacent Hatch, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 65: Internal, GF, Central Wing, Ward A, Room 1092, Floor Covering, Vinyl Floor Tiles (Brown) - Chrysotile Asbestos Detected



Line ID 66: Internal, GF, Central Wing, Ward A, Room 1096, Wall Cavities, Pipework, Lagging - Amosite Asbestos Detected



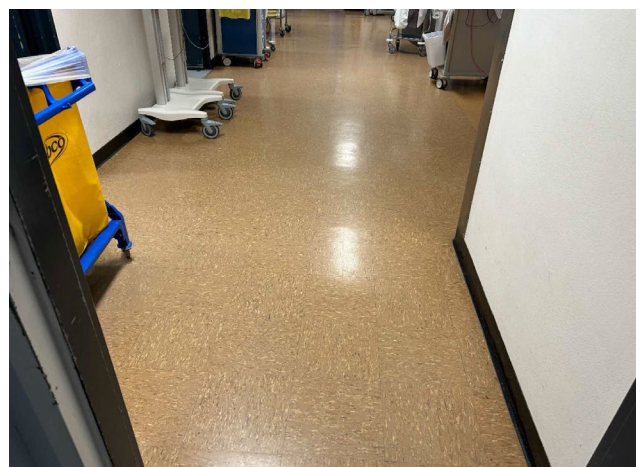
Line ID 66.1: Internal, GF, Central Wing, Ward A, Room 1096, Wall Cavities, Pipework, Lagging - Amosite Asbestos Detected



Line ID 67: Internal, GF, Central Wing, Ward A, Room 1097, Within Wall Cavity, Pipework, Lagging - Amosite Asbestos Detected



Line ID 68: Internal, GF, Central Wing, Ward A, Room 1104, Wall Cavity Adjacent Toilet, Pipework, Lagging - Amosite Asbestos Detected



Line ID 69: Internal, GF, Central Wing, Ward A, Rooms 1104, 1105, 1107, 1108 and 1110, Vinyl Floor Tiles (Brown) - Chrysotile Asbestos Detected



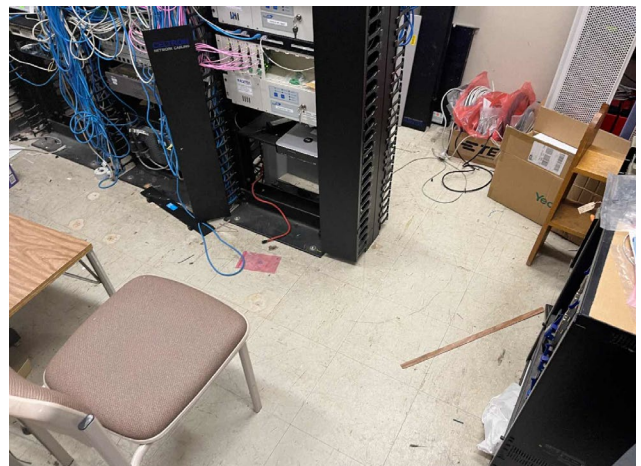
Line ID 70: Internal, GF, Central Wing, Ward A, Staff Room 1118, Floor Covering, Fibrous Backed Vinyl Sheet - No Asbestos Detected



Line ID 71: Internal, GF, Central Wing, Ward A & B, Ceiling Space, All surfaces, Throughout, Dust - No Asbestos Detected



Line ID 72: Internal, GF, Central Wing, Ward A & B, Ceiling Space, Door, Fire Door Core - None Suspected



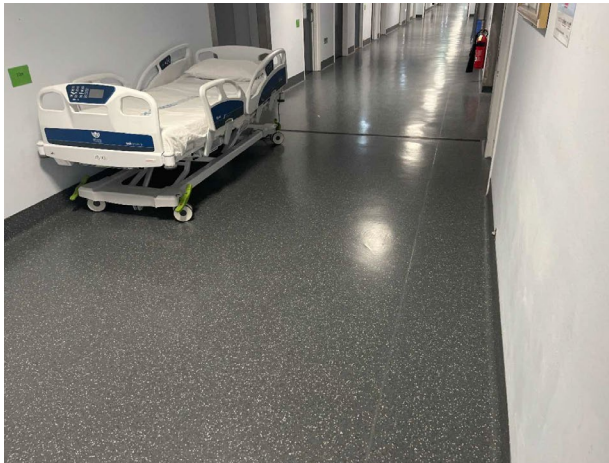
Line ID 73: Internal, GF, Central Wing, Ward B, Floor Covering, Room 1178, Throughout, Vinyl Floor Tiles (white) - Chrysotile Asbestos Detected



Line ID 73.1: Internal, GF, Central Wing, Ward B, Floor Covering, Room 1178, Throughout, Vinyl Floor Tiles (white) - Chrysotile Asbestos Detected



Line ID 74: Internal, GF, Central Wing, Ward B, Floor covering, Various Throughout, Vinyl Floor Tiles (blue) - Chrysotile Asbestos Detected



Line ID 75: Internal, GF, Central Wing, Ward B, Floor Covering, Various Throughout, New Style Sheet Vinyl (black with white specs) - None Suspected



Line ID 76: Internal, GF, Central Wing, Ward B, Floor Covering, Various Throughout, New Style Sheet Vinyl (Cream) - None Suspected



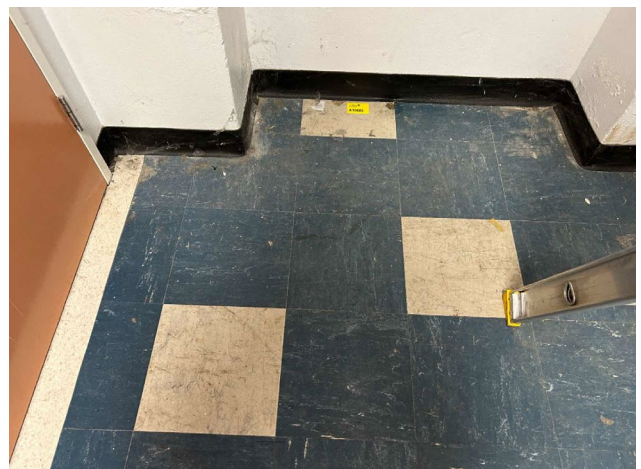
Line ID 77: Internal, GF, Central Wing, Ward B, Room 1164, Distribution Boards, Electrical Components - None Suspected



Line ID 78: Internal, GF, Central Wing, Ward B, Rooms 1174, 1176 & 1177, Floor Covering, Vinyl Floor Tiles (white with grey specks) - Chrysotile Asbestos Detected



Line ID 78.1: Internal, GF, Central Wing, Ward B, Rooms 1174, 1176 & 1177, Floor Covering, Vinyl Floor Tiles (white with grey specks) - Chrysotile Asbestos Detected



Line ID 79: Internal, GF, Central Wing, Ward B, Various Throughout, Floor Covering (Mixed in With Blue Tiles), Vinyl Floor Tiles (White) - Chrysotile Asbestos Detected



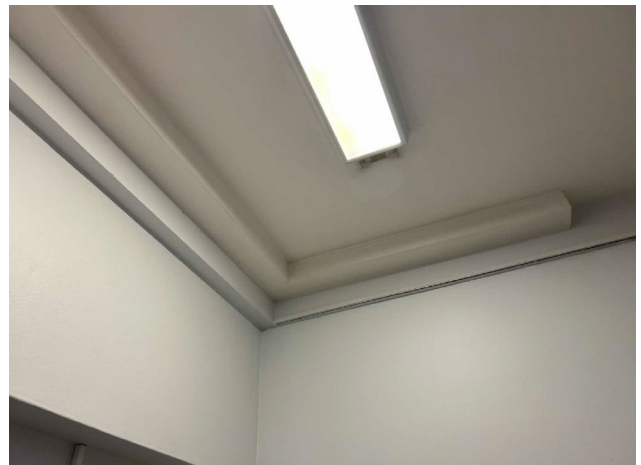
Line ID 80: Internal, GF, Southeast Wing, Ceiling Space, Throughout, Lagging - Amosite Asbestos Detected



Line ID 80.1: Internal, GF, Southeast Wing, Ceiling Space, Throughout, Lagging - Amosite Asbestos Detected



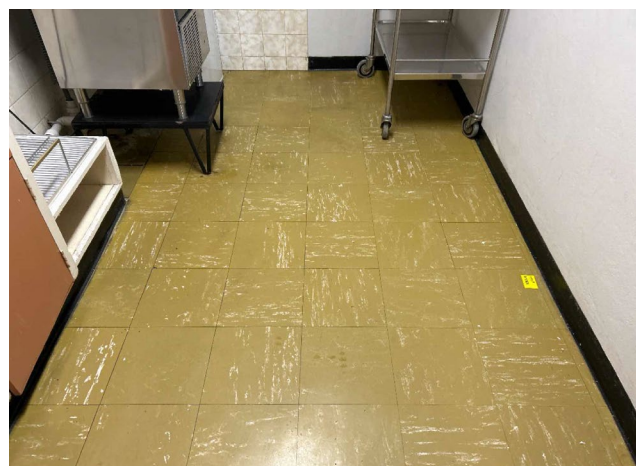
Line ID 81: Internal, GF, Southeast Wing, Double Door to Room 1213, Fire Door Core - Suspected Asbestos



Line ID 82: Internal, GF, Southeast Wing, Reception Room 1237 and Drug Room 1238, Wall Cavities, Pipework, Lagging - Amosite Asbestos Detected



Line ID 82.1: Internal, GF, Southeast Wing, Reception Room 1237 and Drug Room 1238, Wall Cavities, Lagging - Amosite Asbestos Detected



Line ID 83: Internal, GF, Southeast Wing, Room 1191, Floor Covering, Vinyl Floor Tiles (Brown) - Chrysotile Asbestos Detected



Line ID 84: Internal, GF, Southeast Wing, Room 1195, Wall Cavity, Pipework, Lagging - Amosite Asbestos Detected



Line ID 85: Internal, GF, Southeast Wing, Room 1202, Ceiling Space, Pipework, Lagging - Amosite Asbestos Detected



Line ID 86: Internal, GF, Southeast Wing, Rooms 1201, 1202, and 1203, Ceiling, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 86.1: Internal, GF, Southeast Wing, Rooms 1201, 1202, and 1203, Ceiling, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 87: Internal, GF, Southeast Wing, Southern Sub-Floor Area, Adjacent Entrance, Electrical Board, Bituminous Backing Board - Suspected Asbestos



Line ID 88: Internal, GF, Southeast Wing, Southern Sub-Floor Area, Central, Debris, Woven Material - No Asbestos Detected



Line ID 89: Internal, GF, Southeast Wing, Southern Sub-Floor Area, Central, Pipework, Gasket Material - No Asbestos Detected



Line ID 90: Internal, GF, Southeast Wing, Southern Sub-Floor Area, Throughout, Dust - No Asbestos Detected



Line ID 91: Internal, L1, Southeast Wing, Ceiling Space, All surfaces, Throughout, Dust - No Asbestos Detected



Line ID 92: Internal, L1, Southeast Wing, Ceiling Space, Central, Pipework, Lagging - Amosite Asbestos Detected



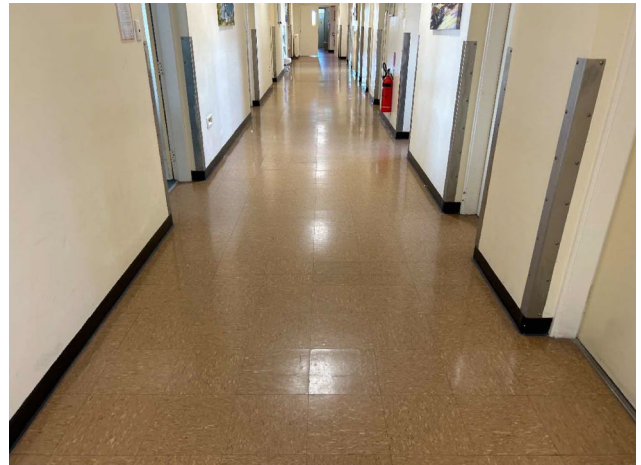
Line ID 93: Internal, L1, Southeast Wing, Ceiling Space, North, Stored On Ledge, Woven Material - Suspected Asbestos



Line ID 94: Internal, L1, Southeast Wing, Ceiling Space, South, Old Water Tanks, Moulded Fibre Cement - Suspected Asbestos



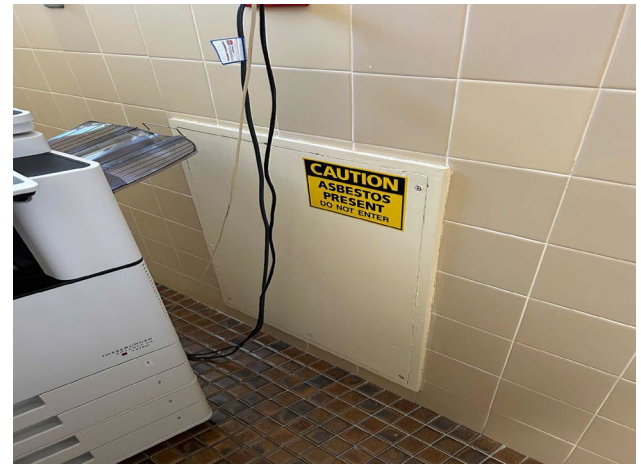
Line ID 95: Internal, L1, Southeast Wing, Ceiling Space, Waterproofing to Underside of Roof, Bituminous Material - Suspected Asbestos



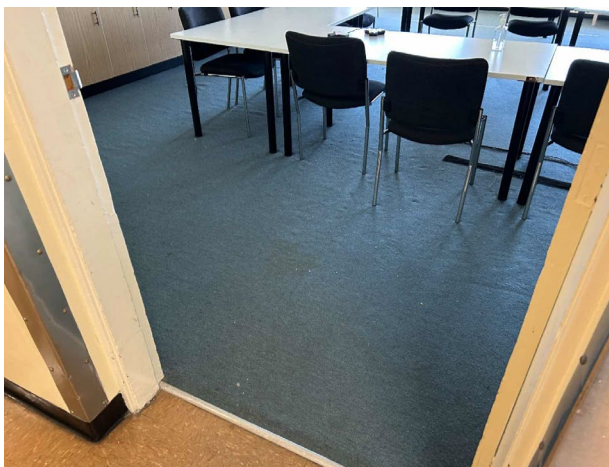
Line ID 96: Internal, L1, Southeast Wing, Central Corridor and Rooms 2002, 2003, 2004, 2005, 2006, 2010, 2011, 2015, 2016, 2017, 2018, 2020, 2023, 2024, 2026 and 2029, Vinyl Floor Tiles (Brown) - Chrysotile Asbestos Detected



Line ID 97: Internal, L1, Southeast Wing, Room 2006, Wall Cavity, Lagging - Amosite Asbestos Detected



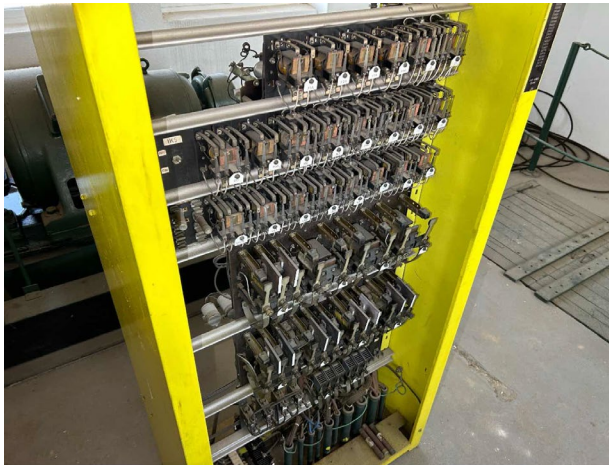
Line ID 98: Internal, L1, Southeast Wing, Room 2014, Wall Cavity, Lagging - Amosite Asbestos Detected



Line ID 99: Internal, L1, Southeast Wing, Rooms 2033 and 2034, Below Carpet, Floor Covering, Vinyl Floor Tiles (Brown) - Chrysotile Asbestos Detected



Line ID 100: Internal, L2, Lift Motor Room, Adjacent Motor, Wire Insulation, Woven Material - Suspected Asbestos



Line ID 101: Internal, L2, Lift Motor Room, Central Electrical Cabinet, Flash Arrestors, Fibre Cement Sheeting - Suspected Asbestos



Line ID 102: Internal, L2, Lift Motor Room, Electrical Cabinet, Bituminous Backing Board - Suspected Asbestos



Line ID 103: Internal, L2, Lift Motor Room, Electrical Cabinet, Dust - Chrysotile Asbestos Detected



Line ID 104: Internal, L2, Lift Motor Room, Electrical Cabinet, Wire Insulation, Woven Material - Suspected Asbestos



Line ID 105: Internal, L2, Lift Motor Room, Lift Motor, Friction Pads - Suspected Asbestos



Line ID 106: External, GF, Central Wing, Central Courtyard, Windows & Frames, Throughout, White Paint - Lead Detected (1.8% w/w)



Line ID 107: External, GF, Central Wing, Northern Courtyard, Ductwork, Throughout, Grey (Light) Paint - Lead Detected (0.22% w/w)



Line ID 108: External, GF, Central Wing, Northern Courtyard, Timber Window Frames, White Paint - Lead Detected (1.8% w/w)



Line ID 108.1: External, GF, Central Wing, Northern Courtyard, Timber Window Frames, White Paint - Lead Detected (1.8% w/w)



Line ID 109: External, GF, Southeast Wing, Door & Frames, Various Throughout, Pink (Light) Paint - Lead Detected (0.02% w/w)



Line ID 109.1: External, GF, Southeast Wing, Door & Frames, Various Throughout, Pink (Light) Paint - Lead Detected (0.02% w/w)



Line ID 110: External, GF, Southeast Wing, Door & Frames, Various Throughout, Purple (Light) Paint - Lead Detected (0.15% w/w)



Line ID 111: External, GF and L1, Southeast Wing, Throughout, Timber Window Frames, White Paint - Lead Detected (4.7% w/w)



Line ID 112: Internal, GF, All Areas, Various Throughout, Walls, Light Purple Paint - Lead Detected (1.2 % w/w)



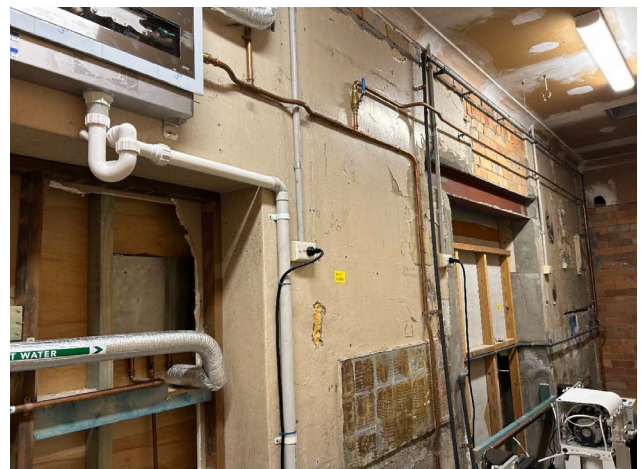
Line ID 113: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Walls, White Paint - Lead Detected (0.099% w/w)



Line ID 114: Internal, GF, Central Wing, North Section, Plant Room 1073, Floor, Cream Paint - Lead Detected (0.03% w/w)



Line ID 115: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Walls, White Paint - Lead Detected (0.02% w/w)



Line ID 116: Internal, GF, Central Wing, North Section, Plant Room 1060, Walls, Cream Paint - Lead Detected (8.7% w/w)



Line ID 117: Internal, GF, Central Wing, Ward A & B, Ceiling Space, Brickwork Lining, White Paint - Lead Detected (4.1% w/w)



Line ID 117.1: Internal, GF, Central Wing, Ward A & B, Ceiling Space, Brickwork Lining, White Paint - Lead Detected (4.1% w/w)



Line ID 118: Internal, GF, Southeast Wing, All Areas, Walls, Light Purple Paint - Lead Detected (1.2 % w/w)



Line ID 119: Internal, L1, Southeast Wing, All Areas, Walls, Cream Paint - Lead Detected (0.30% w/w)



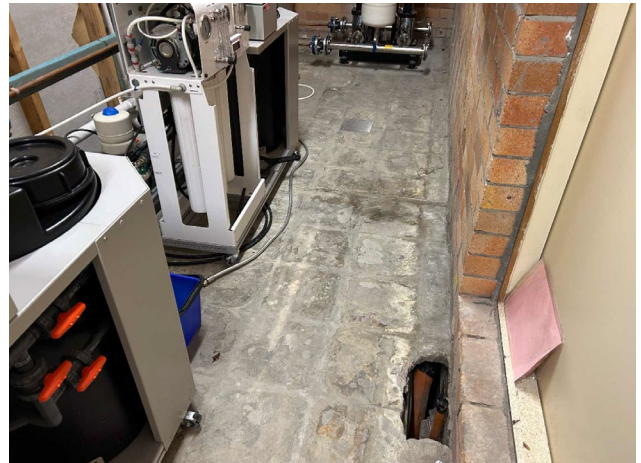
Line ID 120: Internal, L2, Lift Motor Room, Lift Motor, Green Paint - Lead Detected (2.1 % w/w)



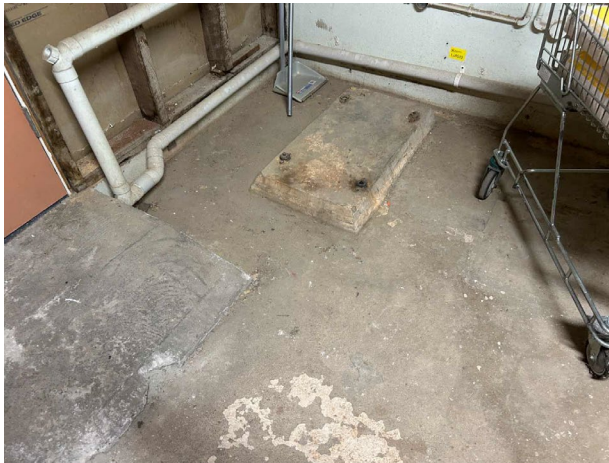
Line ID 121: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Throughout, Dust - Lead Detected (970mg/kg)



Line ID 122: Internal, GF, Central Wing, North Section, Ceiling Space, Throughout, Dust - Lead Detected (49mg/kg)



Line ID 123: Internal, GF, Central Wing, North Section, Plant Doom 1060, Throughout, Dust - Lead Detected (52,000mg/kg)



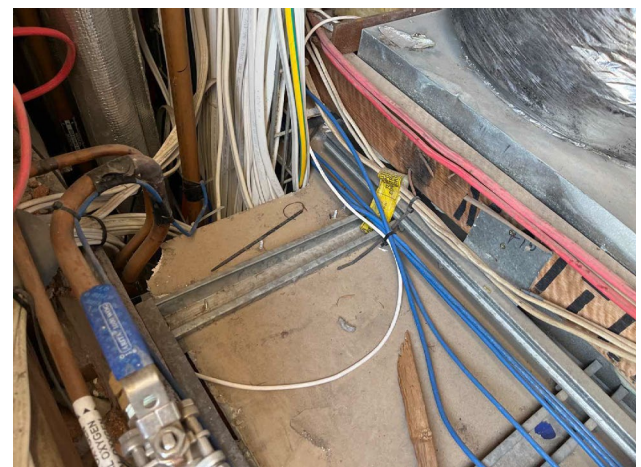
Line ID 124: Internal, GF, Central Wing, North Section, Plant Room 1073, Throughout, Dust - Lead Detected (550 mg/kg)



Line ID 125: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Dust - Lead Detected (340mg/kg)



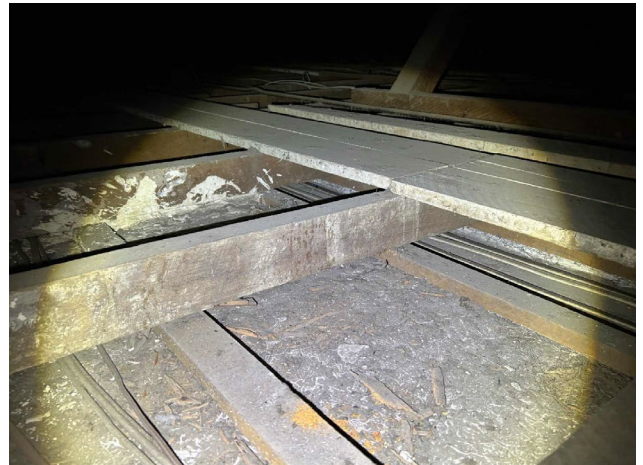
Line ID 126: Internal, GF, Central Wing, Ward A & B, Ceiling Space, All surfaces, Throughout, Dust - Lead Detected (900mg/kg)



Line ID 127: Internal, GF, ED Wing, Ceiling Space, On top of Ceiling, Throughout, Dust - Lead Detected (52 mg/kg)



Line ID 128: Internal, GF, Southeast Wing, Southern Sub-Floor Area, Throughout, Dust - Lead Detected (740mg/kg)



Line ID 129: Internal, GF and L1, Southeast Wing, Ceiling Space, All surfaces, Throughout, Dust - Lead Detected (1,800 mg/kg)



Line ID 130: Internal, L2, Lift Motor Room, On Floor, Dust - Lead Detected (3,300 mg/kg)



Line ID 131: External, GF, Central Wing, Central Alleyway, Pipework debris, Insulation Material - Suspected SMF



Line ID 132: External, GF, Central Wing, Central Courtyard, Boilers and Associated Pipework, Insulation Material - Suspected SMF



Line ID 133: External, GF, Central Wing, Central Courtyard, Pipework, Central, Insulation Material - Suspected SMF



Line ID 134: External, GF, Central Wing, Northern Boiler Area, Boilers, Insulation Material - Suspected SMF



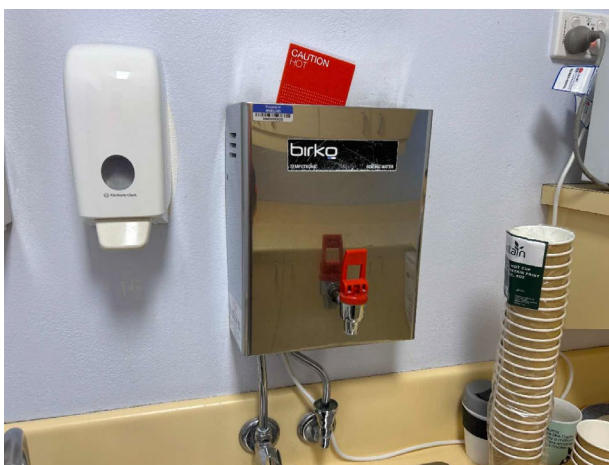
Line ID 135: Internal, GF, All Areas, Ceiling Space, Ductwork, Insulation Material - Suspected SMF



Line ID 136: Internal, GF, All Areas, Ceiling Space, Pipework, Insulation Material - Suspected SMF



Line ID 137: Internal, GF, All Areas, Ceiling Space, Throughout, Sarking Insulation - Suspected SMF



Line ID 138: Internal, GF, All Areas, Staff Rooms and Kitchens, Water Heaters, Insulation Material - Suspected SMF



Line ID 139: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Boilers, Insulation Material - Suspected SMF



Line ID 139.1: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Boilers, Insulation Material - Suspected SMF



Line ID 140: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Pipework, Insulation Material - Suspected SMF



Line ID 141: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Pipework Debris, Insulation Material - Suspected SMF



Line ID 142: Internal, GF, Central Wing, Day Surgery/Recovery, Plant Room, Water Heater, Insulation Material - Suspected SMF



Line ID 143: Internal, GF, Central Wing, North Section, Ceiling Space, Ductwork, Throughout, Insulation Material - Suspected SMF



Line ID 144: Internal, GF, Central Wing, North Section, Ceiling Space, Flexible Ductwork, Throughout, Insulation Material - Suspected SMF



Line ID 145: Internal, GF, Central Wing, North Section, Ceiling Space, Sarking, Roof Lining, Insulation Material - Suspected SMF



Line ID 146: Internal, GF, Central Wing, North Section, Plant Room 1073, Pipework Above Boilers, Insulation Material - Suspected SMF



Line ID 147: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Ductwork, Insulation Material - Suspected SMF



Line ID 148: Internal, GF, Central Wing, North Section, Plant Room 1119, Ceiling Space, Insulation Batts, Insulation Material - Suspected SMF



Line ID 149: Internal, GF, Central Wing, North Section, Plant Room 1119, Ductwork, Insulation Material - Suspected SMF



Line ID 150: Internal, GF, Central Wing, North Section, Plant Room 1119, Pipework, Insulation Material - Suspected SMF



Line ID 151: Internal, GF, Central Wing, North Section, Sub-Floor Area, Pipework, Insulation Material - Suspected SMF



Line ID 152: Internal, GF, Central Wing, Ward A & B, Ceiling Space, Ductwork, Insulation Material - Suspected SMF



Line ID 153: Internal, GF, Central Wing, Ward A & B, Ceiling Space, Flexible ductwork, Insulation Material - Suspected SMF



Line ID 154: Internal, GF, Central Wing, Ward A & B, Ceiling Space, Pillow insulation, Penetrations adjacent ladder, Insulation Material - Suspected SMF



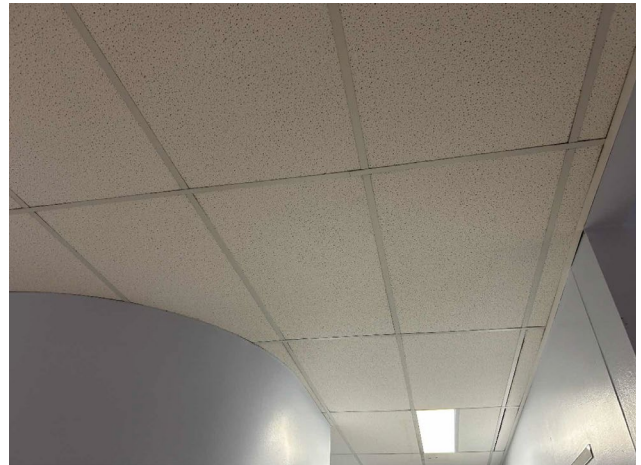
Line ID 155: Internal, GF, ED Wing, Ceiling Space, Ductwork, Various Throughout, Insulation Batts - Suspected SMF



Line ID 156: Internal, GF, ED Wing, Ceiling Space, Insulation Batts, Throughout, Insulation Material - Suspected SMF



Line ID 157: Internal, GF, ED Wing, Ceiling Space, Sarking, Roof Lining, Insulation Material - Suspected SMF



Line ID 158: Internal, GF, Southeast Wing, Central Corridor, Central, Compressed Ceiling Tiles - Suspected SMF



Line ID 159: Internal, GF, Southeast Wing, Room 1191, Water Heater, Insulation Material - Suspected SMF



Line ID 160: Internal, L1, Southeast Wing, Ceiling Space, North, Old Metal Water Tank, Insulation Material - Suspected SMF



Line ID 161: Internal, GF, Southeast Wing, Southern Sub-Floor Area, Light Fittings, Capacitor(s) - Suspected PCB



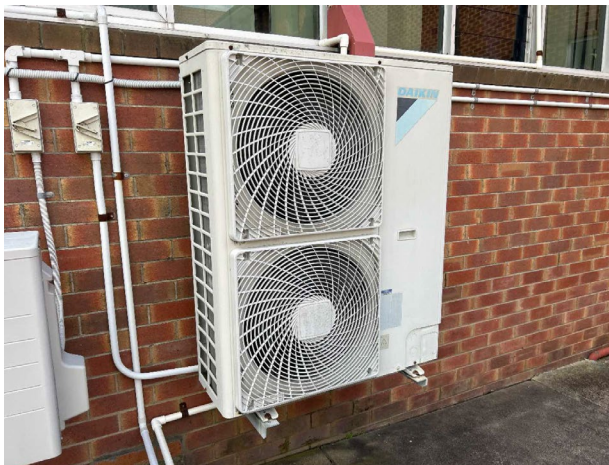
Line ID 162: External, GF, Central Wing, Central Courtyard, AC Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 163: External, GF, Central Wing, North Side, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 164: External, GF, Central Wing, Northern Boiler Area, Chillers, Unknown Refrigerant - Suspected ODS



Line ID 165: External, GF, Central Wing, South Side, Unknown Refrigerant - Suspected ODS



Line ID 165.1: External, GF, Central Wing, South Side, Unknown Refrigerant - Suspected ODS



Line ID 166: External, GF, Central Wing, South Side, AC Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 167: External, GF, ED Wing, North Side, AC Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 168: External, GF, West Wing, South Side, R32 Refrigerant - Non ODS Refrigerant



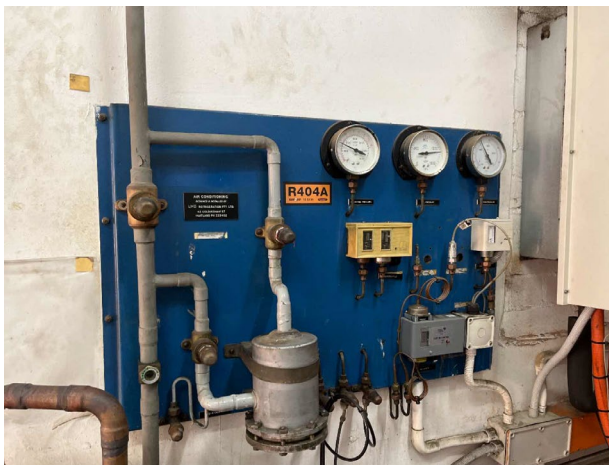
Line ID 169: External, GF, West Wing, South, East and West Sides, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 170: External, GF and L1, Southeast Wing, East and West Sides, AC Units, R410A and R32 Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 171: Internal, GF, Central Wing, North Section, Pharmacy 1075, AC Unit, Unknown Refrigerant - Suspected ODS



Line ID 172: Internal, GF, Central Wing, North Section, Plant Room 1119, Chiller, R404A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 173: Internal, GF, Central Wing, Ward A, Staff Room 1118, AC Unit, Unknown Refrigerant - Suspected ODS



Line ID 174: External, L1, Radio Transmitter Tower – No Access.

Appendix D: Risk Assessment

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Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

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Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC, 1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

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Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

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Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.

NSW Health Infrastructure c/o Turner & Townsend

Asbestos and Hazardous Materials Pre-Demolition Assessment

Workshops, Metal Shed and Old Mortuary

Cessnock Hospital - 24 View Street

Cessnock NSW 2325

23/08/2024



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Asbestos and Hazardous Materials Pre-Demolition Assessment

Prepared for.

NSW Health Infrastructure c/o Turner & Townsend

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Appendices

Appendix A: Asbestos and Hazardous Materials Register

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Executive Summary

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Workshops, Metal Shed and Old Mortuary located at Cessnock Hospital - 24 View Street, Cessnock NSW 2325 (the site).

The purpose of the hazmat pre-demolition assessment was to identify and assess the health risk posed by hazmat, including asbestos containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

State/Territory legislation and industry guidance requires that information in this report is supplied on the understanding that the area surveyed is scheduled for demolition/refurbishment works, and that identified asbestos and other hazmat will be removed prior to, or as part of these works. Asbestos or other hazmat remaining in situ will need to be detailed in the asbestos and hazmat register and site-specific asbestos management plan designed to control the risks of exposure to hazardous materials.

The following hazardous building materials were identified at the time of the assessment:

Property	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Workshops, Metal Shed and Old Mortuary	✓	✓	✓	✓	✓	✓	✓

Full details of the material assessments can be located within **Appendix A: Asbestos and Hazardous Materials Register**.

Areas of No Access or Limited Access were present and are described in Section 2.2. It should be presumed that hazmat are present in these areas until further inspection can confirm or refute their presence.

A number of other recommendations were made in the body of this report which address the ongoing management of hazardous building materials at this site.

This executive summary must be read in conjunction with this entire report and the limitations contained therein.

1. Introduction

Tetra Tech Coffey Pty Ltd (Tetra Tech) was commissioned by NSW Health Infrastructure c/o Turner & Townsend to conduct an asbestos and hazardous materials (hazmat) pre-demolition assessment of the Workshops, Metal Shed and Old Mortuary located at Cessnock Hospital - 24 View Street, Cessnock NSW 2325 (the site). Ben McCann of Tetra Tech conducted the assessment on the 01/07/2024.

Note: The building was occupied at the time of the assessment. As such, destructive/intrusive sampling methods were not able to be used during the survey. A destructive hazardous materials survey must be carried out when the building has been vacated prior to any demolition or refurbishment works.

1.1. Site Information

The asbestos and hazardous materials pre-demolition assessment was undertaken of the Workshops, Metal Shed and Old Mortuary located at Cessnock Hospital - 24 View Street, Cessnock NSW 2325 (the site).

Table 1: Site Information	
Site:	Workshops, Metal Shed and Old Mortuary, Cessnock Hospital - 24 View Street, Cessnock NSW 2325
Age (Circa):	1960s
Site Description:	Single story workshop buildings

1.2. Objective and Scope of Works

The objectives/scope of the hazmat assessment was to:

- Identify the presence of the following confirmed and or suspected hazmat building materials within accessible areas of nominated building(s):
 - Asbestos Containing Materials (ACM);
 - Lead Based Paint (LBP);
 - Lead Containing Dust (LCD);
 - Synthetic Mineral Fibres (SMF);
 - Polychlorinated Biphenyls in fluorescent light capacitors (PCBs); and
 - Ozone Depleting Substances (ODSs).
- Collect samples of suspected ACM and/or LBP and LCD, for analysis by a NATA accredited laboratory;
- Visually determine the presence of SMF, PCB-containing light fittings and ODSs;
- Recommend risk management strategies to mitigate risks associated with ACM and other hazmat for removal and ongoing occupancy;
- Prepare a detailed assessment report in alignment with the requirements of relevant State/Territory Regulations, Compliance Codes, Codes of Practice and Guidance Notes, and
- Provide a copy of the assessment report in electronic (PDF) format to NSW Health Infrastructure.

2. Findings

The results of the asbestos and hazardous materials pre-demolition assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat prior to demolition or refurbishment.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed are depicted in **Appendix A: Asbestos and Hazardous Materials Register**.

The following significant key findings are noted:

2.1.1. Asbestos Containing Materials

Location	Material Description	Risk Rating
Internal / GF / Workshops, Central Section / Ceiling Space	Dust	High
Internal / GF / Workshops, Southern Section / Unit 1008, Floor	Dust	High
External / GF / Workshops, All Areas / Central Section, Subfloor, Pipework	Lagging	Medium
External / GF / Workshops, All Areas / Central Section, Subfloor, Debris	Fibre Cement Debris	Low
External / GF / Workshops, All Areas / Central Section, Subfloor, Packing	Fibre Cement Sheeting	Low
External / GF / Workshops, All Areas / Central and North Sections, Eaves	Fibre Cement Sheeting	Low
External / GF / Workshops, All Areas / Central and North Sections, Roof Gable Panels	Fibre Cement Sheeting	Low
External / GF / Workshops, All Areas / Central and North Sections, Walls	Fibre Cement Sheeting	Low
External / GF / Workshops, All Areas / Central Section, Subfloor, Pipework	Moulded Fibre Cement	Low
External / GF / Workshops, All Areas / Central Section, Subfloor, South Wall	Profiled Cement Sheeting	Low
External / GF / Workshops, All Areas / North and South Sections, Upper Walls	Profiled Cement Sheeting	Low
Internal / GF / Northern Metal Shed / North, Distribution Board	Electrical Components	Low
Internal / GF / Old Mortuary / Various Throughout, Light Switches	Bakelite	Low
Internal / GF / Workshops, Central Section / Ceiling Space, Adjacent Access Hatch	Woven Blanket Material	Low
Internal / GF / Workshops, Central Section / Central Office, Northeast	Bituminous Backing Board	Low

Internal / GF / Workshops, Central Section / Kitchenette, Under Sink, Sink Pad (no access)	Bituminous Material	Low
Internal / GF / Workshops, Central Section / North Store Room, North and South, Walls	Fibre Cement Sheeting	Low
Internal / GF / Workshops, Northern Section / Electrical Distribution Board 19 - Incinerator	Compressed Bituminous Panel	Low
Internal / GF / Workshops, Northern Section / Room 1004, Sink Pad	Bituminous Material	Low
Internal / GF / Workshops, Northern Section / Wall Lining	Fibre Cement Sheeting	Low
Internal / GF / Workshops, Southern Section / Northern Unit, North, Wall	Fibre Cement Sheeting	Low
Internal / GF / Workshops, Southern Section / Unit 1008, North, Lower Infill Panels	Profiled Cement Sheeting	Low
Internal / GF / Workshops, Southern Section / Unit 1010, Stored Item, Underside of Sink	Bituminous Material	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
Internal / GF / Old Mortuary / Central Door and Frame	Blue Paint	Low
Internal / GF / Old Mortuary / Debris on Floor	Cream Paint	Low
Internal / GF / Old Mortuary / Throughout, Ceiling	Blue Paint	Low
Internal / GF / Workshops, Southern Section / Unit 1011, Ceiling	White Paint	Low
Internal / GF / Workshops, Southern Section / Unit 1011, Debris on Surfaces	White Paint	Low
External / GF / Old Mortuary / Walls	White Paint	Low
External / GF / Workshops, All Areas / All Sections, Roof and Metal Work	Brown Paint	Low
Internal / GF / Workshops, Southern Section / Various Timber Walls	White Paint	Low
External / GF / Workshops, All Areas / Central and South Sections, Timber Walls	White Paint	Very Low
External / GF / Workshops, All Areas / Central Section, West, Window Frames	White Paint	Very Low
External / GF / Workshops, All Areas / North and Central Sections, Walls	White Paint	Very Low

External / GF / Workshops, All Areas / North Sections, Northeast, Door Frame	Cream Paint	Very Low
Internal / GF / Old Mortuary / Walls	Cream Paint	Very Low
Internal / GF / Workshops, Central Section / Wall & Ceiling Lining	Blue (Light) Paint	Very Low

2.1.3. Lead Containing Dust

Location	Material Description	Risk Rating
Internal / GF / Workshops, Central Section / Throughout Ceiling Space	Dust	High
Internal / GF / Workshops, Southern Section / Floor	Dust	High
Internal / GF / Old Mortuary / Ceiling Space	Dust	Low

2.1.4. Synthetic Mineral Fibres

Location	Material Description	Risk Rating
Internal / GF / Workshops, Northern Section / Room 1004, Stored Item	Sarking Insulation	Low
Internal / GF / Workshops, Central Section / Ceiling Space	Insulation Batts	Very Low

2.1.5. Polychlorinated Biphenyls

Location	Material Description	Risk Rating
Internal / GF / Northern Metal Shed / Throughout, Light Fittings	Capacitor(s)	Very Low
Internal / GF / Old Mortuary / South Room, Light Fittings	Capacitor(s)	Very Low
Internal / GF / Workshops, Northern Section / Double Tube Fluorescent Light Fitting	Capacitor(s)	Very Low

2.1.6. Ozone Depleting Substances

Location	Material Description	Risk Rating
Internal / GF / Northern Metal Shed / North, AC Unit	Unknown Refrigerant	Very Low
Internal / GF / Workshops, Central Section / Central Office, AC Unit	R22 Hydrochlorofluorocarbon (HCFC)	Very Low

2.2. Access Restrictions

Where no access or limited access areas have been identified it should be presumed that hazmat are present in these areas until further investigation can confirm or refute their presence.

No inspection can be guaranteed to locate all asbestos and hazmat in specific locations. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

2.2.1. No Access Areas

The following areas were not accessible at the time of the assessment:

- Within live electrics, plant and ductwork throughout.
- Areas outside the scope of assessment.
- Internal, GF, Workshops, Southern Section, Subfloor – restricted access.

2.2.2. Limited Access Areas

Access to the following areas was limited at the time of the assessment:

- Ceiling voids;
- Wall voids;
- Below floors;
- Behind ceramic wall tiles;
- Beneath floor coverings;
- Subfloor spaces;
- Risers;
- Occupied areas;
- Formwork to concrete slabs; and
- Roof.

3. Recommendations

The following recommendations are provided with respect to hazmat identified during the assessment of the site. This assessment only covers the parts of the site that have been accessed and been assessed in accordance with the approved scope.

3.1. Asbestos Containing Materials

The preference will always be to eliminate the asbestos hazards from the site and if it is practicable for the occupier to do so then asbestos removal should always be considered. ACM on site, which were found to be in a bonded and stable condition, may be managed in situ and periodically inspected if removal is not practicable.

If managed in situ, all identified or presumed ACM should be appropriately labelled, where possible, and regularly inspected to assess their condition and potential changes to health risk.

Prior to any demolition, partial demolition, renovation or refurbishment, ACM likely to be disturbed by those works should be removed in accordance with relevant codes of practices, compliance codes and legislation.

3.1.1. Asbestos Control Measures

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied, and removal is required as soon as practicable using a licensed contractor.
- If the ACM is friable, accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is non-friable and, in a poor/unstable condition, disturbance should be minimised. Removal or encapsulation may be appropriate controls. ACM which are found in localised areas and identified as damaged, consisting of small quantities of non-friable cement debris may not require the highest removal priority. The removal priority may be lowered due to a low risk of disturbance. Further confirmation can be obtained via asbestos fibre air monitoring where the result is found to be < 0.01 fibre/mL.
- For the instances above and further assessment of the risk, airborne fibre monitoring is recommended and can assist with decisions on the most appropriate, and urgency of, control measures.
- Where ACM is in a good, stable condition, ongoing maintenance and periodic inspection would be appropriate control measures.
- Remaining ACM identified or presumed should be appropriately labelled where possible. Those items should be regularly inspected to ensure they are not deteriorating and resulting in a potential risk to health.
- An asbestos management plan (AMP) should be created and maintained for all ACM that remain at the site to assist the persons conducting a business or undertaking (PCBU) with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibres.
- Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the PCBU can be alerted if any ACM require encapsulation or removal.
- Prior to any demolition or refurbishment works, all asbestos and hazardous materials identified and likely to be disturbed by demolition or refurbishment works should be removed in accordance with the legislative requirements and relevant codes of practice or compliance codes.
- During future demolition works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with statutory requirements, codes of practice, guidelines, material safety data sheets, work instructions or reasonable work practices.

3.2. Lead Based Paint

- Any works that are likely to disturb lead based paint surface should be undertaken in accordance with the Australian Standard (AS4361.2:2017), Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings.
- Prior to any disturbance of lead based paint a comprehensive risk assessment is to be conducted.
- Any loose and peeling lead based paint should be stabilised (using hand-held scrapers, drop cloths and wet misting where appropriate) and the paint chips disposed of as hazardous waste.
- Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor).

3.3. Lead Containing Dust

- Any work processes involving lead containing dust must be undertaken in a manner to ensure that no worker is exposed to lead at concentrations above the workplace exposure standard (WES) of 0.05mg/m³ over an eight-hour day.
- Prior to any disturbance of lead containing dust a comprehensive risk assessment is to be conducted.
- Lead containing dust removal works should include the use of high efficiency particulate air (HEPA) filtered vacuum cleaners and wet wiping techniques by a licensed contractor under controlled lead-containing dust conditions in conjunction with air monitoring and clearances by a competent hygienist.

3.4. Synthetic Mineral Fibres

- SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].

3.5. Polychlorinated Biphenyls

- It may not be considered feasible to inspect every light fitting within a premise as information available in the public domain on the identification of PCB-containing capacitors is limited. However, all metal capacitors should be treated as containing PCB unless determined otherwise
- All capacitors containing or suspected as PCB or the fluorescent light fittings likely to be disturbed during future works should be removed prior to any future demolition, partial demolition, renovation or refurbishment in accordance with Department of Occupational Health, Safety and Welfare, *Safe Handling of PCB in Fluorescent Light Capacitors* – 1993 and with the *Polychlorinated Biphenyls Management Plan, Revised Edition April 2003*.

3.6. Ozone Depleting Substances

- Removal of refrigerants should be undertaken prior to any future demolition, partial demolition, renovation or refurbishment, where ODS's are likely to be disturbed. A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of in accordance with Association of Fluorocarbon Consumers and Manufacturers, The Australian Refrigeration and Air Conditioning Code of Good Practice – 1992 and the Australian Commonwealth Government Ozone Protection Act – 1989.

3.7. Training

Information, instruction and training must be provided to workers, contractors and others who may come into contact with hazardous materials in a workplace, either directly or indirectly.

Depending on the circumstances this hazardous materials awareness training may include:

- The purpose of the training;
- The health risks of hazardous materials;
- The types, uses and likely occurrence of hazardous materials on site, in plant and/or equipment in the workplace;
- The trainee's roles and responsibilities for hazmat management;
- Where the asbestos and hazardous materials register is located and how it can be accessed;
- The timetable for removal of hazmat from the workplace;

- The processes and procedures to be followed to prevent exposure, including exposure from any accidental release of hazmat into the workplace;
- Where applicable, the correct use of maintenance and control measures, protective equipment and work methods to minimise the risks from hazmat, limit the exposure of workers and limit the spread of hazmat outside any work area;
- The National Exposure Standard (NES) and control levels for hazmat; and
- The purpose of any air monitoring or health surveillance that may occur.

Should any further suspect asbestos and/or hazmat become evident during future disturbance/ refurbishment works which have not been addressed in this report, Tetra Tech should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

Tetra Tech is able to assist with all aspects of Risk Management for removal of asbestos and other hazardous materials resulting from these findings

Appendix A: Asbestos and Hazardous Materials Register

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Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Northern Metal Shed / East, to Floor	Construction Joint Mastic	Asbestos	A27835	No Asbestos Detected	-	6 m	-	-	-	-	1
External	GF / Old Mortuary / South and East Windows	Window Caulking	Asbestos	A30964	No Asbestos Detected	-	3 Units	-	-	-	-	2
External	GF / Workshops, All Areas / Central and North Sections, Eaves	Fibre Cement Sheeting	Asbestos	A30957.1	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	100 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	3
External	GF / Workshops, All Areas / Central and North Sections, Roof Gable Panels	Fibre Cement Sheeting	Asbestos	A30957.2	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	30 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	4
External	GF / Workshops, All Areas / Central and North Sections, Walls	Fibre Cement Sheeting	Asbestos	A30957	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	300 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	5

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Workshops, All Areas / Central Section, Subfloor, Debris	Fibre Cement Debris	Asbestos	A30957.3	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	5 m²	Poor	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	6
External	GF / Workshops, All Areas / Central Section, Subfloor, Packing	Fibre Cement Sheeting	Asbestos	A30959	Chrysotile Asbestos Detected	Non-Friable	5 m²	Poor	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	7
External	GF / Workshops, All Areas / Central Section, Subfloor, Pipework	Lagging	Asbestos	A30954	Amosite Asbestos Detected	Friable	10 m	Poor	Medium	As soon as reasonably practicable	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes. Restrict access in the interim.	8
External	GF / Workshops, All Areas / Central Section, Subfloor, Pipework	Moulded Fibre Cement	Asbestos	A30956	Chrysotile and Amosite Asbestos Detected	Non-Friable	5 m	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	9

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Workshops, All Areas / Central Section, Subfloor, South Wall	Profiled Cement Sheeting	Asbestos	A30958.1	Chrysotile Asbestos Detected	Non-Friable	6 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	10
External	GF / Workshops, All Areas / Central Section, West Windows	Thin Window Caulking	Asbestos	A30960	No Asbestos Detected	-	2 Units	-	-	-	-	11
External	GF / Workshops, All Areas / Central Section, West Windows	Thick Window Caulking	Asbestos	A30961	No Asbestos Detected	-	4 Units	-	-	-	-	12
External	GF / Workshops, All Areas / North and South Sections, Upper Walls	Profiled Cement Sheeting	Asbestos	A30958	Chrysotile Asbestos Detected	Non-Friable	50 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	13
Internal	GF / Northern Metal Shed / North, Distribution Board	Electrical Components	Asbestos	754-NTLEN347071-1339A2	Suspected Asbestos	Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Confirm Status and remove under controlled friable asbestos removal conditions as soon as practicable by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	14

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Old Mortuary / North Room, to Redundant Sink	Bituminous Material	Asbestos	A30966	No Asbestos Detected	-	2 m²	-	-	-	-	15
Internal	GF / Old Mortuary / South Room, on Floor	Fibre Cement Sheeting	Asbestos	A30963	No Asbestos Detected	-	0.5 m²	-	-	-	-	16
Internal	GF / Old Mortuary / Various Throughout, Light Switches	Bakelite	Asbestos	754-NTLEN347071-1339A3	Suspected Asbestos	Non-Friable	6 Units	Stable	Low	Prior to refurbishment or demolition	Confirm status and remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	17
Internal	GF / Workshops, Central Section / Ceiling Space	Dust	Asbestos	A27831	Chrysotile Asbestos Detected	Friable	120 m²	Poor	High	As soon as reasonably practicable	Restrict access and isolate area. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	18
Internal	GF / Workshops, Central Section / Ceiling Space, Adjacent Access Hatch	Woven Blanket Material	Asbestos	A27830	Chrysotile Asbestos Detected	Friable	5 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	19

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Workshops, Central Section / Central Office, Northeast	Bituminous Backing Board	Asbestos	754-NTLEN347071-1339A1	Suspected Asbestos	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Confirm status and remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	20
Internal	GF / Workshops, Central Section / Kitchenette, Under Sink, Sink Pad (no access)	Bituminous Material	Asbestos	A27829.1	Chrysotile Asbestos Detected	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	21
Internal	GF / Workshops, Central Section / North Store Room, North and South, Walls	Fibre Cement Sheeting	Asbestos	A30957.5	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	40 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	22
Internal	GF / Workshops, Northern Section / Electrical Distribution Board 19 - Incinerator	Compressed Bituminous Panel	Asbestos	754-NTLEN347071-1493A1	Suspected Asbestos	Non-Friable	1 Unit	Stable	Low	Prior to refurbishment or demolition	Not sampled - live electrical hazard. Confirm status and remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	23

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Workshops, Northern Section / Room 1004, Sink Pad	Bituminous Material	Asbestos	A27829	Chrysotile Asbestos Detected	Non-Friable	1 m²	Stable	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	24
Internal	GF / Workshops, Northern Section / Wall Lining	Fibre Cement Sheeting	Asbestos	A30957.4	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	120 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	25
Internal	GF / Workshops, Southern Section / Northern Unit, North, Wall	Fibre Cement Sheeting	Asbestos	A30957.6	Chrysotile, Amosite and Crocidolite Asbestos Detected	Non-Friable	20 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	26
Internal	GF / Workshops, Southern Section / Unit 1008, Floor	Dust	Asbestos	A27832	Chrysotile Asbestos Detected	Friable	20 m²	Poor	High	As soon as reasonably practicable	Restrict access and isolate area. Remove under controlled friable asbestos removal conditions prior to refurbishment or demolition works by a Class A (friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	27

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Workshops, Southern Section / Unit 1008, North, Lower Infill Panels	Profiled Cement Sheeting	Asbestos	A30958.2	Chrysotile Asbestos Detected	Non-Friable	5 m²	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	28
Internal	GF / Workshops, Southern Section / Unit 1008, Northeast, Stored Sheets	Compressed Cement Sheeting	Asbestos	A27833	No Asbestos Detected	-	3 m²	-	-	-	-	29
Internal	GF / Workshops, Southern Section / Unit 1008, Stored Item on Floor	Fibre Cement Sheet	Asbestos	A27834	No Asbestos Detected	-	8 m²	-	-	-	-	30
Internal	GF / Workshops, Southern Section / Unit 1009, Stored Item on Floor	Fibre Cement Sheeting	Asbestos	A27998	No Asbestos Detected	-	4 m²	-	-	-	-	31
Internal	GF / Workshops, Southern Section / Unit 1010, Stored Item, Underside of Sink	Bituminous Material	Asbestos	A27995	Chrysotile Asbestos Detected	Non-Friable	1 Unit	Fair	Low	Prior to refurbishment or demolition	Remove under controlled non-friable asbestos removal conditions prior to refurbishment or demolition works by a Class B (non-friable) licensed asbestos removal contractor in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	32

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Old Mortuary / Entrance Door	Brown Paint	Lead Paint	L22364	Lead Detected (0.096% w/w)	-	4 m²	-	-	-	<0.1% lead content, not lead-containing paint as described in AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings.	33
External	GF / Old Mortuary / Walls	White Paint	Lead Paint	L22361	Lead Detected (0.30% w/w)	-	100 m²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	34
External	GF / Workshops, All Areas / All Sections, Roof and Metal Work	Brown Paint	Lead Paint	L22317	Lead Detected (0.26% w/w)	-	800 m²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	35
External	GF / Workshops, All Areas / Central and South Sections, Timber Walls	White Paint	Lead Paint	L22318	Lead Detected (0.18% w/w)	-	400 m²	Fair	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	36

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
External	GF / Workshops, All Areas / Central Section, West, Window Frames	White Paint	Lead Paint	L22312	Lead Detected (0.24% w/w)	-	6 Units	Fair	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	37
External	GF / Workshops, All Areas / North and Central Sections, Walls	White Paint	Lead Paint	L22315	Lead Detected (0.18% w/w)	-	300 m ²	Fair	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	38
External	GF / Workshops, All Areas / North Sections, Northeast, Door Frame	Cream Paint	Lead Paint	L22314	Lead Detected (0.12% w/w)	-	1 m ²	Fair	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	39

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Old Mortuary / Central Door and Frame	Blue Paint	Lead Paint	L22370	Lead Detected (12% w/w)	-	4 m²	Fair	Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	40
Internal	GF / Old Mortuary / Debris on Floor	Cream Paint	Lead Paint	L22367.1	Lead Detected (0.86% w/w)	-	50 m²	Poor	Low	-	>0.1% lead content. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	41
Internal	GF / Old Mortuary / Throughout, Ceiling	Blue Paint	Lead Paint	L22370.1	Lead Detected (12% w/w)	-	50 m²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	42
Internal	GF / Old Mortuary / Walls	Cream Paint	Lead Paint	L22367	Lead Detected (0.86% w/w)	-	100 m²	Poor	Very Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct	43

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											a risk assessment to determine the level of remediation controls required.	
Internal	GF / Workshops, Central Section / Wall & Ceiling Lining	Blue (Light) Paint	Lead Paint	L22308	Lead Detected (0.25% w/w)	-	80 m²	Stable	Very Low	-	>0.1% lead content, maintain in current condition, over paint with a lead-free paint as part of ongoing maintenance. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings prior to renovation or demolition works. Conduct a risk assessment to determine the level of remediation controls required.	44
Internal	GF / Workshops, Southern Section / Unit 1011, Ceiling	White Paint	Lead Paint	L22311	Lead Detected (3.1% w/w)	-	20 m²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	45
Internal	GF / Workshops, Southern Section / Unit 1011, Debris on Surfaces	White Paint	Lead Paint	L22311.1	Lead Detected (3.1% w/w)	-	5 m²	Poor	Low	-	>0.1% lead content. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	46

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	GF / Workshops, Southern Section / Various Timber Walls	White Paint	Lead Paint	L22318.1	Lead Detected (0.18% w/w)	-	50 m ²	Poor	Low	-	>0.1% lead content, remove flaking sections and over paint with a lead-free paint. Remove under controlled conditions in accordance with AS 4361.2, Guide to hazardous paint management - 2017 Part 2: Lead paint in residential, public and commercial buildings. Conduct a risk assessment to determine the level of remediation controls required.	47
Internal	GF / Old Mortuary / Ceiling Space	Dust	Lead Dust	L22376	Lead Detected (290 mg/kg)	-	50 m ²	Poor	Low	-	<1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Manage in-situ, conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	48
Internal	GF / Workshops, Central Section / Throughout Ceiling Space	Dust	Lead Dust	L22309	Lead Detected (5,400 mg/kg)	-	100 m ²	Poor	High	-	>1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Implement intermediate control measures. Conduct a risk assessment to determine the level of remediation controls required prior to any activities including refurbishment or demolition that may disturb the dust.	49
Internal	GF / Workshops, Southern Section / Floor	Dust	Lead Dust	L22358	Lead Detected (1,500 mg/kg)	-	100 m ²	Poor	High	-	>1,500 mg/kg for industrial or commercial sites based on the soil contamination criteria of the National Environment Protection Measure 1999. Implement intermediate control measures. Conduct a risk assessment to determine the level of remediation controls	50

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											required prior to any activities including refurbishment or demolition that may disturb the dust.	
Internal	GF / Workshops, Central Section / Ceiling Space	Insulation Batts	SMF	754-NTLEN347071-1339S1	Suspected SMF	-	100 m²	-	Very Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	51
Internal	GF / Workshops, Northern Section / Room 1004, Stored Item	Sarking Insulation	SMF	754-NTLEN347071-1493S1	Suspected SMF	-	40 m²	-	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	52
Internal	GF / Northern Metal Shed / Throughout, Light Fittings	Capacitor(s)	PCB	754-NTLEN347071-1339P1	Suspected PCB	-	6 Units	-	Very Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.	53
Internal	GF / Old Mortuary / South Room, Light Fittings	Capacitor(s)	PCB	754-NTLEN347071-1339P2	Suspected PCB	-	2 Units	-	Very Low	-	PCB-containing capacitors are suspected due to age & appearance of electrical fittings. Remove and dispose of in accordance with the Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.	54
Internal	GF / Workshops, Northern Section / Double Tube Fluorescent Light Fitting	Capacitor(s)	PCB	754-NTLEN347071-1493P1	Suspected PCB	-	2 Units	-	Very Low	-	PCB-containing capacitors are visually confirmed with ANZECC database 1997. Remove and dispose of in accordance with the	55

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Condition	Risk Rating	Reinspect Date	Recommendations	Line ID
											Polychlorinated Biphenyls Management Plan, Revised Edition April 2003 prior to refurbishment or demolition.	
Internal	GF / Northern Metal Shed / North, AC Unit	Unknown Refrigerant	ODS	754-NTLEN347071-1339O2	Suspected ODS	-	1 Unit	-	Very Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment.	56
Internal	GF / Workshops, Central Section / Central Office, AC Unit	R22 Hydrochlorofluorocarbon (HCFC)	ODS	754-NTLEN347071-1339O1	ODS Refrigerant	-	1 Unit	-	Very Low	-	Hydrochlorofluorocarbon (HCFC), ozone depleting substances identified in the assessment that require removal during refurbishment or demolition works should be appropriately decanted and disposed of by a licensed contractor in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Amendment Regulation 2012.	57
Internal	GF / Workshops / Southern Section / Subfloor	-	No Access	754-NTLEN347071-1WorkshopsNA1	-	-	-	-	-	-	Restricted access. Potential hazardous materials may be present within inaccessible areas.	58

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No: 754-NTLEN347071-1 Bulk ID Report Cessnock Hospital - Workshops 05072024
Client: NSW Health Infrastructure
Client Address: 1 Reserve Rd, St Leonards NSW 2065

Contact: Les Palma
E-mail: Les.Palma@turntown.com

Date Sampled: 01-07-2024

Date Analysed: 04-07-2024

Date Authorised: 08-07-2024

Sampled By: Ben McCann

Site: Cessnock Hospital - Workshops, Metal Shed and Old Mortuary:
 Cessnock Hospital, 24 View St, Cessnock, NSW



Accredited for compliance with ISO/IEC 17025 - Testing
 Accreditation No:2220
 Corporate Site No:16909

Please note: Where you have provided the samples for analysis, Tetra Tech Coffey Pty Ltd does not take any responsibility for the quality of such samples. This report relates exclusively to the samples analysed by Tetra Tech Coffey Pty Ltd and as such only the samples submitted or collected for analysis have been considered in presenting these results. The data and results contained in this report are not representative of the site, product or source material as a whole. Tetra Tech Coffey Pty Ltd does not make any warranty or representation in relation to the site, product or source material as a whole. If you suspect any material to contain asbestos, then you must immediately stop the works and activities at the site or in respect of the materials and engage Tetra Tech Coffey Pty Ltd or another suitably trained asbestos hygienist to sample, assess or re-assess (as the case may be) the material suspected to contain asbestos.

Asbestos in Bulk Samples and Non-homogenous Material

Test Method: Tetra Tech Coffey Pty Ltd analyses bulk samples for asbestos using polarising light microscopy and dispersion staining techniques in accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2004, Method for the qualitative identification of asbestos in bulk samples (AS 4964). The detection limit for the test method as per AS 4964 is 0.1 g/kg. For non-homogenous samples a semi-quantitative aspect is adopted for the test method and is taken into account when reporting the results. As per Tetra Tech Coffey Pty Ltd's NATA approved SOP WILAB1 sample retention periods are set at 1 month for all samples from the date of analysis.

Analysed At: Tetra Tech Coffey Pty Ltd Laboratory, Level 20, Tower B, Citadel Towers 799 Pacific Highway Chatswood NSW 2067

Total Samples: 19

Approved Identifier
 Panika Wongchanda

Approved Signatory
 Matthew Tang

Sample No.	Location & Description	Sample Size (~)	Results
A27829	Internal, GF, Workshops, Northern Section, Room 1004 - Sink Pad, Bituminous Material - Black bituminous material	24 x 15 x 3 mm	Chrysotile (white asbestos) detected Organic fibres detected
A27830	Internal, GF, Workshops, Central Section, Workshop, Ceiling Space, Adjacent Access Hatch, Woven Material - Beige fibrous woven rope material	55 x 25 x 2 mm	Chrysotile (white asbestos) detected
A27831	Internal, GF, Workshops, Central Section, Ceiling Space, Throughout, Dust - Brown non-homogenous fibrous dust & debris Matted fibre bundles containing Chrysotile (white asbestos) found within the sample raw weight: ~ 0.0002 g	1.6 g	Chrysotile (white asbestos) detected Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A27832	Internal, GF, Workshops, Southern Section, Unit 1008, On Floor, Dust - Brown non-homogenous fibrous dust & debris Isolate fibre bundle containing Chrysotile (white asbestos) found within the sample measuring: ~ 2 x 0.5 x 0.5 mm	9.1 g	Chrysotile (white asbestos) detected Organic fibres detected Synthetic mineral fibres detected No trace (respirable) asbestos detected as per AS 4964 2004
A27833	Internal, GF, Workshops, Southern Section, Unit 1008, Northeast, Stored Sheets, Compressed Cement Sheeting - Beige layered fibre cement sheet material	42 x 8 x 2 mm	No asbestos fibres detected Organic fibres detected
A27834	Internal, GF, Workshops, Southern Section, Unit 1008, stored item on floor, Fibre Cement Sheet - Beige layered fibre cement sheet material	90 x 50 x 4 mm	No asbestos fibres detected Organic fibres detected
A27835	External, GF, Northern Metal Shed, East, To Floor, Construction Joint Mastic - Grey rubbery mastic material	38 x 20 x 8 mm	No asbestos fibres detected Organic fibres detected
A27995	Internal, GF, Workshops, Southern Section, Unit 1010, Stored item, sink pad - Underside of sink, Bituminous Material - Black fibrous bituminous sheet material	38 x 31 x 2 mm	Chrysotile (white asbestos) detected Organic fibres detected

Sample No.	Location & Description	Sample Size (~)	Results
A27998	Internal, GF, Workshops, Southern Section, Unit 1009, Stored item on floor, Fibre Cement Sheeting - Beige layered fibre cement sheet material	37 x 9 x 3 mm	No asbestos fibres detected Organic fibres detected
A30954	External, GF, Workshops, All Areas, Central Section, Subfloor, Pipework, Lagging - White fibrous insulation material	63 x 22 x 2 mm	Amosite (brown asbestos) detected
A30956	External, GF, Workshops, All Areas, Central Section, Subfloor, Pipework, Moulded Fibre Cement - Grey compressed fibre cement sheet material	22 x 9 x 2 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Organic fibres detected
A30957	External, GF, Workshops, All Areas, Central and North Sections, Walls, Fibre Cement Sheeting - Grey compressed fibre cement sheet material	35 x 20 x 5 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected Crocidolite (blue asbestos) detected
A30958	External, GF, Workshops, All Areas, North and South Sections, Upper Walls, Profiled Cement Sheeting - Grey compressed fibre cement sheet material	36 x 12 x 5 mm	Chrysotile (white asbestos) detected
A30959	External, GF, Workshops, All Areas, Central Section, Subfloor, Packing, Fibre Cement Sheeting - Grey painted beige layered fibre cement sheet material	28 x 13 x 5 mm	Chrysotile (white asbestos) detected Organic fibres detected
A30960	External, GF, Workshops, All Areas, Central Section, West, Thin Caulking, Window Caulking - Grey painted beige hardened mastic material	52 x 11 x 8 mm	No asbestos fibres detected Organic fibres detected
A30961	External, GF, Workshops, All Areas, Central Section, West, Thick Caulking, Window Caulking - Blue painted beige hardened mastic material	66 x 25 x 10 mm	No asbestos fibres detected Organic fibres detected
A30963	Internal, GF, Old Mortuary, South Room, On Floor, Fibre Cement Sheeting - Brown layered fibre cement sheet material	44 x 22 x 5 mm	No asbestos fibres detected Organic fibres detected
A30964	External, GF, Old Mortuary, South and East Windows, Window Caulking - Beige hardened mastic material	27 x 21 x 4 mm	No asbestos fibres detected Organic fibres detected
A30966	Internal, GF, Old Mortuary, North Room, To Redundant Sink, Bituminous Material - Brown soft mastic material	28 x 23 x 3 mm	No asbestos fibres detected Organic fibres detected

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CERTIFICATE OF ANALYSIS 355699

Client Details

Client	Tetra Tech Coffey Pty Ltd
Attention	Ben McCann
Address	Level 20, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details

Your Reference	<u>754-NTLEN347071-1, Cessnock Hospital Survey-Wkshop</u>
Number of Samples	11 Paint, 3 Dust
Date samples received	04/07/2024
Date completed instructions received	04/07/2024

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 solids and on an as received basis for other matrices.

Report Details

Date results requested by	11/07/2024
Date of Issue	11/07/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager

Authorised By

Nancy Zhang, Laboratory Manager

Lead in Paint						
Our Reference	UNITS	355699-1	355699-3	355699-4	355699-5	355699-6
Your Reference		L22308	L22311	L22312	L22314	L22315
Date Sampled		01/07/2024	01/07/2024	01/07/2024	01/07/2024	01/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	09/07/2024	09/07/2024	09/07/2024	09/07/2024	09/07/2024
Date analysed	-	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
Lead in paint	%w/w	0.25	3.1	0.24	0.12	0.18

Lead in Paint						
Our Reference	UNITS	355699-7	355699-8	355699-10	355699-11	355699-12
Your Reference		L22317	L22318	L22361	L22364	L22367
Date Sampled		01/07/2024	01/07/2024	01/07/2024	01/07/2024	01/07/2024
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	09/07/2024	09/07/2024	09/07/2024	09/07/2024	09/07/2024
Date analysed	-	10/07/2024	10/07/2024	10/07/2024	10/07/2024	10/07/2024
Lead in paint	%w/w	0.26	0.18	0.30	0.096	0.86

Lead in Paint		
Our Reference	UNITS	355699-13
Your Reference		L22370
Date Sampled		01/07/2024
Type of sample		Paint
Date prepared	-	09/07/2024
Date analysed	-	10/07/2024
Lead in paint	%w/w	12

Lead (dust)				
Our Reference		355699-2	355699-9	355699-14
Your Reference	UNITS	L22309	L22358	L22376
Date Sampled		01/07/2024	01/07/2024	01/07/2024
Type of sample		Dust	Dust	Dust
Date prepared	-	09/07/2024	09/07/2024	09/07/2024
Date analysed	-	09/07/2024	09/07/2024	09/07/2024
Lead	mg/kg	5,400	1,500	290

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES.
Metals-020/021/022	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

QUALITY CONTROL: Lead in Paint						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			09/07/2024	3	09/07/2024	09/07/2024		09/07/2024	[NT]
Date analysed	-			10/07/2024	3	10/07/2024	10/07/2024		10/07/2024	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	3	3.1	2.7	14	88	[NT]

QUALITY CONTROL: Lead in Paint						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	4	09/07/2024	09/07/2024		[NT]	[NT]
Date analysed	-			[NT]	4	10/07/2024	10/07/2024		[NT]	[NT]
Lead in paint	%w/w	0.005	Metals-020/021/022	[NT]	4	0.24	0.23	4	[NT]	[NT]

QUALITY CONTROL: Lead (dust)					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			09/07/2024	9	09/07/2024	09/07/2024		09/07/2024	[NT]
Date analysed	-			09/07/2024	9	09/07/2024	09/07/2024		09/07/2024	[NT]
Lead	mg/kg	1	Metals-020	<1	9	1500	1100	31	105	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
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.
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.
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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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.

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 QA/QC tables for details; <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 (not SPOCAS); 60-140% for organics/SPOCAS (+/-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 insufficient in order to satisfy laboratory QA/QC protocols.

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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 and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix C: Photographs

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Line ID 1: External, GF, Northern Metal Shed, East, to Floor, Construction Joint Mastic - No Asbestos Detected



Line ID 2: External, GF, Old Mortuary, South and East Windows, Window Caulking - No Asbestos Detected



Line ID 3: External, GF, Workshops, All Areas, Central and North Sections, Eaves, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 4: External, GF, Workshops, All Areas, Central and North Sections, Roof Gable Panels, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 5: External, GF, Workshops, All Areas, Central and North Sections, Walls, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 5.1: External, GF, Workshops, All Areas, Central and North Sections, Walls, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 6: External, GF, Workshops, All Areas, Central Section, Subfloor, Debris, Fibre Cement Debris - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 7: External, GF, Workshops, All Areas, Central Section, Subfloor, Packing, Fibre Cement Sheetting - Chrysotile Asbestos Detected



Line ID 8: External, GF, Workshops, All Areas, Central Section, Subfloor, Pipework, Lagging - Amosite Asbestos Detected



Line ID 9: External, GF, Workshops, All Areas, Central Section, Subfloor, Pipework, Moulded Fibre Cement - Chrysotile and Amosite Asbestos Detected



Line ID 10: External, GF, Workshops, All Areas, Central Section, Subfloor, South Wall, Profiled Cement Sheetting - Chrysotile Asbestos Detected



Line ID 11: External, GF, Workshops, All Areas, Central Section, West Windows, Thin Window Caulking - No Asbestos Detected



Line ID 12: External, GF, Workshops, All Areas, Central Section, West Windows, Thick Window Caulking - No Asbestos Detected



Line ID 12.1: External, GF, Workshops, All Areas, Central Section, West Windows, Thick Window Caulking - No Asbestos Detected



Line ID 13: External, GF, Workshops, All Areas, North and South Sections, Upper Walls, Profiled Cement Sheetting - Chrysotile Asbestos Detected



Line ID 13.1: External, GF, Workshops, All Areas, North and South Sections, Upper Walls, Profiled Cement Sheetting - Chrysotile Asbestos Detected



Line ID 14: Internal, GF, Northern Metal Shed, North, Distribution Board, Electrical Components - Suspected Asbestos



Line ID 15: Internal, GF, Old Mortuary, North Room, to Redundant Sink, Bituminous Material - No Asbestos Detected



Line ID 16: Internal, GF, Old Mortuary, South Room, on Floor, Fibre Cement Sheetting - No Asbestos Detected



Line ID 17: Internal, GF, Old Mortuary, Various Throughout, Light Switches, Bakelite - Suspected Asbestos



Line ID 18: Internal, GF, Workshops, Central Section, Ceiling Space, Dust - Chrysotile Asbestos Detected



Line ID 19: Internal, GF, Workshops, Central Section, Ceiling Space, Adjacent Access Hatch, Woven Blanket Material - Chrysotile Asbestos Detected



Line ID 20: Internal, GF, Workshops, Central Section, Central Office, Northeast, Bituminous Backing Board - Suspected Asbestos



Line ID 21: Internal, GF, Workshops, Central Section, Kitchenette, Under Sink, Sink Pad (no access), Bituminous Material - Chrysotile Asbestos Detected



Line ID 21.1: Internal, GF, Workshops, Central Section, Kitchenette, Under Sink, Sink Pad (no access), Bituminous Material - Chrysotile Asbestos Detected



Line ID 22: Internal, GF, Workshops, Central Section, North Store Room, North and South, Walls, Fibre Cement Sheetting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 23: Internal, GF, Workshops, Northern Section, Electrical Distribution Board 19 - Incinerator, Compressed Bituminous Panel - Suspected Asbestos



Line ID 23.1: Internal, GF, Workshops, Northern Section, Electrical Distribution Board 19 - Incinerator, Compressed Bituminous Panel - Suspected Asbestos



Line ID 23.2: Internal, GF, Workshops, Northern Section, Electrical Distribution Board 19 - Incinerator, Compressed Bituminous Panel - Suspected Asbestos



Line ID 24: Internal, GF, Workshops, Northern Section, Room 1004, Sink Pad, Bituminous Material - Chrysotile Asbestos Detected



Line ID 24.1: Internal, GF, Workshops, Northern Section, Room 1004, Sink Pad, Bituminous Material - Chrysotile Asbestos Detected



Line ID 25: Internal, GF, Workshops, Northern Section, Wall Lining, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 25.1: Internal, GF, Workshops, Northern Section, Wall Lining, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



Line ID 26: Internal, GF, Workshops, Southern Section, Northern Unit, North, Wall, Fibre Cement Sheeting - Chrysotile, Amosite and Crocidolite Asbestos Detected



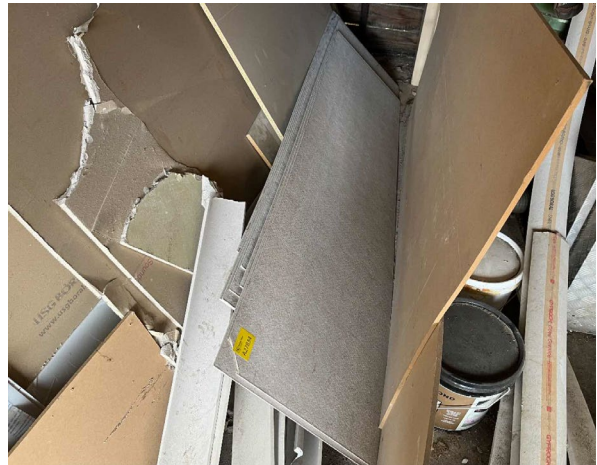
Line ID 27: Internal, GF, Workshops, Southern Section, Unit 1008, Floor, Dust - Chrysotile Asbestos Detected



Line ID 28: Internal, GF, Workshops, Southern Section, Unit 1008, North, Lower Infill Panels, Profiled Cement Sheeting - Chrysotile Asbestos Detected



Line ID 29: Internal, GF, Workshops, Southern Section, Unit 1008, Northeast, Stored Sheets, Compressed Cement Sheeting - No Asbestos Detected



Line ID 30: Internal, GF, Workshops, Southern Section, Unit 1008, Stored Item on Floor, Fibre Cement Sheet - No Asbestos Detected



Line ID 31: Internal, GF, Workshops, Southern Section, Unit 1009, Stored Item on Floor, Fibre Cement Sheeting - No Asbestos Detected



Line ID 32: Internal, GF, Workshops, Southern Section, Unit 1010, Stored Item, Underside of Sink, Bituminous Material - Chrysotile Asbestos Detected



Line ID 33: External, GF, Old Mortuary, Entrance Door, Brown Paint - Lead Detected (0.096% w/w)



Line ID 34: External, GF, Old Mortuary, Walls, White Paint - Lead Detected (0.30% w/w)



Line ID 35: External, GF, Workshops, All Areas, All Sections, Roof and Metal Work, Brown Paint - Lead Detected (0.26% w/w)



Line ID 36: External, GF, Workshops, All Areas, Central and South Sections, Timber Walls, White Paint - Lead Detected (0.18% w/w)



Line ID 37: External, GF, Workshops, All Areas, Central Section, West, Window Frames, White Paint - Lead Detected (0.24% w/w)



Line ID 38: External, GF, Workshops, All Areas, North and Central Sections, Walls, White Paint - Lead Detected (0.18% w/w)



Line ID 39: External, GF, Workshops, All Areas, North Sections, Northeast, Door Frame, Cream Paint - Lead Detected (0.12% w/w)



Line ID 40: Internal, GF, Old Mortuary, Central Door and Frame, Blue Paint - Lead Detected (12% w/w)



Line ID 41: Internal, GF, Old Mortuary, Debris on Floor, Cream Paint - Lead Detected (0.86% w/w)



Line ID 42: Internal, GF, Old Mortuary, Throughout, Ceiling, Blue Paint - Lead Detected (12% w/w)



Line ID 43: Internal, GF, Old Mortuary, Walls, Cream Paint - Lead Detected (0.86% w/w)



Line ID 44: Internal, GF, Workshops, Central Section, Wall & Ceiling Lining, Blue (Light) Paint - Lead Detected (0.25% w/w)



Line ID 44.1: Internal, GF, Workshops, Central Section, Wall & Ceiling Lining, Blue (Light) Paint - Lead Detected (0.25% w/w)



Line ID 45: Internal, GF, Workshops, Southern Section, Unit 1011, Ceiling, White Paint - Lead Detected (3.1% w/w)



Line ID 46: Internal, GF, Workshops, Southern Section, Unit 1011, Debris on Surfaces, White Paint - Lead Detected (3.1% w/w)



Line ID 47: Internal, GF, Workshops, Southern Section, Various Timber Walls, White Paint - Lead Detected (0.18% w/w)



Line ID 48: Internal, GF, Old Mortuary, Ceiling Space, Dust - Lead Detected (290 mg/kg)



Line ID 49: Internal, GF, Workshops, Central Section, Throughout Ceiling Space, Dust - Lead Detected (5,400 mg/kg)



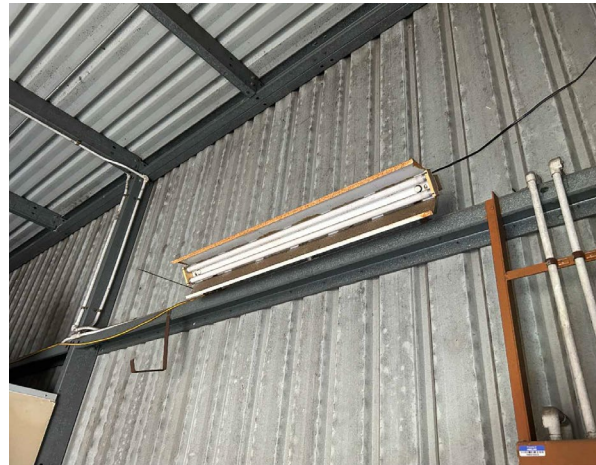
Line ID 50: Internal, GF, Workshops, Southern Section, Floor, Dust - Lead Detected (1,500 mg/kg)



Line ID 51: Internal, GF, Workshops, Central Section, Ceiling Space, Insulation Batts - Suspected SMF



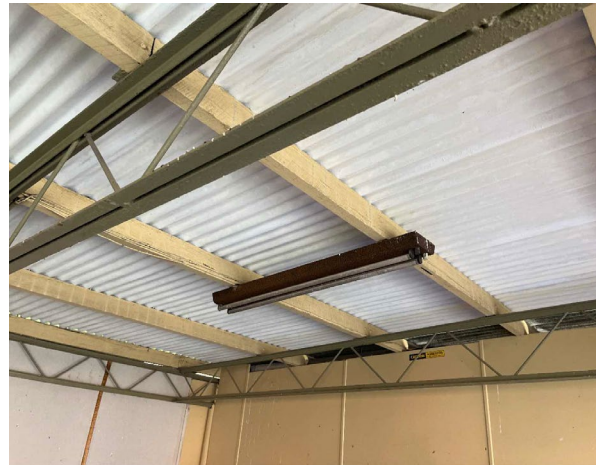
Line ID 52: Internal, GF, Workshops, Northern Section, Room 1004, Sarking Insulation, Stored Item - Suspected SMF



Line ID 53: Internal, GF, Northern Metal Shed, Throughout, Light Fittings, Capacitor(s) - Suspected PCB



Line ID 54: Internal, GF, Old Mortuary, South Room, Light Fittings, Capacitor(s) - Suspected PCB



Line ID 55: Internal, GF, Workshops, Northern Section, Double Tube Fluorescent Light Fitting, Capacitor(s) - Suspected PCB



Line ID 56: Internal, GF, Northern Metal Shed, North, AC Unit, Unknown Refrigerant - Suspected ODS



Line ID 57: Internal, GF, Workshops, Central Section, Central Office, AC Unit, R22 Hydrochlorofluorocarbon (HCFC) - ODS Refrigerant

Appendix D: Risk Assessment

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Risk Assessment

The risk assessment is explained, in the tables below. Our semi-quantitative risk assessment borrows elements from the materials risk assessment documented in HSG264: Asbestos: The survey guide – HSE and the priority risk assessment documented in HSG 227: A comprehensive guide to Managing Asbestos in premises – HSE, providing an element of quantification to the qualitative nature of site risk assessment.

Some of the elements of these well documented risk assessments have been omitted. Most notably the asbestos type from the materials risk assessment, as all types of asbestos are listed by the International Agency for Research on Cancer (IARC) as Type 1 Carcinogens. In addition, we have omitted the maintenance activity from HSG 277. The reason being that human risk factors associated with maintenance activities are often difficult to assess in-situ and require detailed input from the Person in Control of a Business of Undertaking (PCBU).

The risk assessment then takes into account all other Hazardous materials and utilizes similar algorithms to create a risk assessment for those materials.

The asbestos containing material risk score is a quantitative assessment determined by the sum of the scores based on the material assessment and the likelihood of exposure, i.e. Risk score = Material Score + Location Score (out of as possible 18).

An explanation of the material assessment and likelihood of exposure scores can be found in the tables below.

Table 2 - Risk Scores

Overall Risk Assessment Score	Overall Risk Rating
0 – 4	Very Low
5 – 8	Low
9 – 13	Moderate
14 – 18	High

Table 3 – Product Type (or debris)

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc.)	SMF composite products / insulation batts / woven products, Lead paint, Lead Compounds/Alloys/Products, Small PCB containing electrical capacitors	1
Asbestos insulating board, mill boards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	RCF woven/treated products, Lead paint flakes, Industrial PCB containing industrial transformers	2
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	RCF loose fill products, Lead dust, PCB containing oils in bulk storage, or uncontained spills.	3

Table 4 – Extent of Damage or Deterioration

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Good condition: no visible damage	Good condition: no visible damage	0
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	Low damage: a few scratches or surface marks; Peeling paint, Large paint flakes, Redundant PCB container in accessible area out of electrical product	1
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	Medium damage: significant breakage of materials or several small areas where material has been damaged, good condition sprays and insulation, large amounts of fine flaking paint and debris, Leaking PCB containing electrical equipment	2
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	High damage or delamination of materials. Visible debris, Lead dust, Pooling PCB oils, leaking oil bulk containers	3

Table 5 – Surface type and treatment

Examples of Materials – Asbestos	Examples of Materials - Hazmat	Score
Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	SMF/RCF composite products, insulation products sealed behind a non-friable barrier, Lead paints <0.1%w/w, lead, compounds/ alloys/ products <0.1%w/w lead, PCB oils <2mg/kg	0
Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc.	SMF/RCF woven and insulation products, Lead paints ≥0.1%w/w and <0.25%w/w, PCB ≥2mg/kg and <50mg/kg in oil	1
Unsealed asbestos insulating board, or encapsulated lagging and sprays	SMF/RCF heat-treated insulation products, Lead paints ≥0.25%w/w and <1.0%w/w, Lead dusts above recommended clearance indicator based on AS/NZS4361.2. PCB ≥50mg/kg and <10,000mg/kg in oil	2
Unsealed laggings and sprayed asbestos	Lead dusts a multiple of at least 5 times above recommended clearance indicator based on AS/NZS4361.2, Lead paint >1.0%, ≥10,000mg/kg in oil (10%w/w)	3

² Lead and PCB refers specifically to the analysis result

Appendix E: Legislative Requirements

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Legislative Requirements

The assessment, and preparation of this report have been undertaken in accordance with the requirements of State/Territories legislation and standards outlined below.

State/Territories Relevant Legislation

States & Territories	Acts	Legislation
Australian Capital Territory (ACT)	ACT Work Health & Safety Act 2011	ACT Work Health & Safety Regulation 2011
New South Wales (NSW)	NSW Work Health & Safety Act 2011	NSW Work Health & Safety Regulation 2017
Northern Territory (NT)	NT Work Health & Safety Act 2011	NT Work Health & Safety Regulation 2017
Queensland (QLD)	QLD Work Health & Safety Act 2011	QLD Work Health & Safety Regulation 2011
South Australia (SA)	SA Work Health & Safety Act 2012	SA Work Health & Safety Regulation 2012
Tasmania (TAS)	Tasmanian Work Health & Safety Act 2012	Tasmanian Work Health & Safety Regulation 2012
Victoria (VIC)	Victorian Occupational Health and Safety Act 2004	Victorian Occupational Health and Safety Regulation 2017
Western Australia (WA)	Occupational Safety and Health Act 1984	Occupational Safety and Health Regulation 1996

States/Territories Code of Practices & Compliance Codes

States & Territories	Codes of Practices & Compliance Codes	
Australian Capital Territory (ACT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
New South Wales (NSW)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Northern Territory (NT)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Queensland (QLD)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
South Australia (SA)	Code of Practice: How to manage and Control asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Tasmania (TAS)	Code of Practice: How to Manage and Control Asbestos in the Workplace.	Code of Practice: How to Safely Remove Asbestos.
Victoria (VIC)	Compliance Code: Managing Asbestos in Workplaces.	Compliance Code: Removing Asbestos in Workplaces.

Western Australia (WA)	Code of Practice for Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(2005)]
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The Victorian Compliance Codes align with the intent of the SafeWork Australia Model Code of Practice

Hazardous Materials Standard & Guidance Notes

Hazardous Material	Guidance Notes
Lead Based Paint	AS/NZS 4361.2:2017 Guide to hazardous paint management – Part 2: Lead paint in residential, public and commercial buildings
Lead Containing Dust	National Environmental Protection Measure (NEPM) (NEPC, 1999) as updated in 2013.
Synthetic Mineral Fibres	National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres
Polychlorinated Biphenyls	ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors
Ozone Depleting Substances	UNEP (2001) Inventory of Trade Names of Chemical Products containing Ozone Depleting Substances and their Alternatives

Each section is to be read in conjunction with the whole of this report, including the appendices.

Appendix F: Methodology

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Methodology

Hazmat surveys are undertaken considering a risk management approach, in accordance with relevant statutory regulations and relevant Codes of Practice. A risk assessment was conducted based on a number of factors associated with hazmat identified during the survey and prioritised through Risk and Action Classifications.

The assessment involved the onsite investigation for the presence of ACM, SMF, LBP systems, LCD, PCB and ODS including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Information was collected from the site owners/occupiers/tenants where available on relevant issues pertaining to the site. Based on the available data and the status at the time of inspection, where items were identified, visual and/or analytical characterisation (where required) was performed and reported in **Appendix A: Asbestos and Hazardous Materials Register**.

The assessment was conducted on the basis of the condition, type and location of the materials at the time of inspection. The scope of this investigation did not allow intrusive sampling techniques to be undertaken in all locations, and consequently the register may have limitations as a reference document for the purposes of renovation or demolition.

Only 'typical' suspected material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same area is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner by competent persons. Presumptions, based on knowledge and experience, that inaccessible areas contain asbestos materials may also be made and stated within the register.

Samples collected are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Tetra Tech's Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted. LCD thresholds are adopted from lead in soil thresholds found in the National Environment Protection Assessment of Site Contamination (ASC) Measure (1999) as amended in 2013 (NEPM).

The presence of asbestos in bulk samples is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques. Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix D: Risk Assessment**.

The asbestos and hazmat register is made up of relevant information gathered on site plus Tetra Tech's assessment of risk and assignment of action ratings. Reference to photographs, where available, is made in the register along with sample identification and analysis results, where applicable. Sample analysis results from previous assessments may be utilised and referenced in this register.

Appendix G: Statement of Limitations

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Statement of Limitations

Tetra Tech has conducted work concerning the environmental status of the property which is the subject of this report and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Tetra Tech. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client's instruction, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected.

This report has been provided by Tetra Tech for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

The assessment brief is to identify every reasonably accessible hazmat. Reasonably accessible does not extend to searching for concealed hazmat beneath concrete encased structural beams or beneath concrete floors, behind another hazmat, or any other locations which, to access, would cause structural damage that could potentially destabilise the structure or the building. Given the way in which hazmat was used in the construction of buildings, some may only be detected during the course of subsequent demolition.

Any areas within the remit of the assessment but not described within the body of the report or in the hazmat register should be regarded by the client as un-assessed, and suspected as ACM potentially containing amphibole asbestos. A competent person should assess such areas before any work affecting them is carried out.

It must be assumed that materials visually assessed as presumed asbestos contain amphibole asbestos, unless sampled and analysed to prove otherwise. All areas where access was not possible must also be presumed to contain asbestos until proven otherwise.

Asbestos Containing Materials

Tetra Tech assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for potential future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances, only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building. It is advisable to presume that materials similar to those positively identified as asbestos also contain asbestos until proved otherwise. It should not be presumed that materials similar in appearance to those tested and found not to contain asbestos also do not contain asbestos.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore, the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres

present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

Internal building materials should be assumed to contain asbestos until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement, but this could not be assessed. Any subsurface pipes, particularly those constructed of fibre-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Tetra Tech will not update the report and has not taken into account events occurring after the time the assessment was conducted.

The following limitations and restrictions to specific materials, installations and locations are commonly found during assessments of this nature, even if safe access can be provided through consultation with the client this inspection and report may not include the following areas:

- **Risers / Ceiling, Floor or Wall Cavities, and Voids** - may be completely blocked or bricked in. Occasionally may only be detected if shown on building construction plans or during demolition
- **Columns / Structural Elements** - these will not be penetrated if doing so will damage the stability of the building
- **Roofs / External Areas** - these will not be checked if safe access cannot be achieved
- **Confined Spaces** - these will not be checked if safe access cannot be achieved
- **Restricted Access** - areas subject to restricted access will not be checked unless special arrangements have been made through the client within the remit of the assessment
- **Live Plant or Electrical Installations** - live electrical installations including fuse boxes, electrical control cabinets, distribution panels etc. are not routinely checked for safety reasons. Electrical equipment will only be examined if it is locked off and an isolation certificate has been issued. Under exceptional circumstances, when arranged by the client, examination of non-isolated equipment may take place under the supervision of an electrician
- **Live Refrigerators / Cold Rooms / Mechanical Equipment / Heater Units / Kilns** - may contain asbestos internally, which is not visible or accessible until the unit is isolated and dismantled

The Client must not rely on an inspection or report as indicating that a site or a building is “asbestos free”. All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

This report does not comment on, or present information regarding regulatory waste disposal practices and the associated waste disposal legislative requirements for hazardous materials. Prior to the disposal of any hazardous materials from site, clarification from the EPA should be sought by you, the client or the controller of the site (PCBU).

As part of the site inspection, materials may be suspected to be non-hazardous based on age and/or appearance. If any of these materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and sampling of this material, with analytical confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Materials including (but not limited to) e.g. fire retardants, vermiculite, sprayed coatings and insulations cannot be feasibly sampled in their entirety due to the heterogeneous nature of such materials. Sample results provided are only representative of the material sampled, and in that particular sample location. If any such materials are damaged or likely to be disturbed, due to (but not limited to) maintenance activities or building inspections, a risk assessment and targeted area sampling, with analytical

confirmation should be undertaken in conjunction with the processes outlined in the Asbestos Management Plan (AMP) for the site.

Should any other material suspected to contain asbestos or hazmat be found at the site, then works should cease and a suitably trained asbestos hygienist should be engaged to sample or assess the material.