

Office of Sport

Asbestos and Hazardous Materials Reinspection Assessment

Broken Bay Sport and Recreation Centre Broken Bay Hawkesbury River NSW 2777 25/01/2023



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Asbestos and Hazardous Materials Reinspection Assessment

Prepared for

Office of Sport

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Executive Summary

Tetra Tech Coffey Pty Ltd (TTC) was commissioned by Office of Sport to conduct an asbestos and hazardous materials (hazmat) reinspection assessment of Broken Bay Sport and Recreation Centre located at Broken Bay, Hawkesbury River NSW 2777 (the site).

The purpose of the hazmat assessment was to assess and document the health risks posed by hazmat, including asbestos containing materials (ACM) which are considered accessible during normal occupation 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 the registers be used by and made available to property owners, employers, workers, persons intending business at the premises and Health and Safety Representatives, as part of an overall hazardous materials 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					
Broken Bay Sport and Recreation Centre	~	~	✓	-	✓	-	✓

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.

The survey inspection conducted was not a destructive pre demolition/ refurbishment survey. A destructive hazardous building material survey must be carried out prior to any demolition or refurbishment works.

1. Introduction

Tetra Tech Coffey Pty Ltd (TTC) was commissioned by Office of Sport to conduct an asbestos and hazardous materials (hazmat) reinspection assessment of Broken Bay Sport and Recreation Centre located at Broken Bay, Hawkesbury River NSW 2777 (the Site). Mona Izzeldin of TTC conducted the assessment on the 17/01/2023.

The survey inspection conducted was not a destructive pre demolition/ refurbishment survey. A destructive hazardous building material survey must be carried out prior to any demolition or refurbishment works.

As the previous NATA laboratory sample results could not be located, re-sampling of materials were undertaken during this re-inspection survey to confirm results via a NATA-accredited laboratory sample analysis report.

1.1. Site Information

The asbestos and hazardous materials reinspection assessment was undertaken of Broken Bay Sport and Recreation Centre located at Broken Bay, Hawkesbury River NSW 2777 (the site).

Table 1: Site Information						
Site:	Broken Bay Sport and Recreation Centre, Broken Bay, Hawkesbury River NSW 2777					
Age (Circa):	1940's					
Site Description:	Multiple stand-alone buildings within complex					

1.2. Objective and Scope of Works

The objectives/scope of the asbestos and hazardous materials reinspection 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;
- Assess the risks associated with identified hazmat;
- 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 Office of Sport.

2. Findings

The results of the asbestos and hazardous materials reinspection assessment are provided in a register format which is designed to provide readily available information about the presence of hazmat in the workplace.

2.1. Assessment Findings

The findings of this assessment are presented in tabulated format, including building materials that have been photographed and 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 / Rotunda Canopy / Ground Floor / Debris to Soil Adjacent Rotunda Canopy	Moulded Fibre Cement Debris	Medium
External / Office Building / Ground Floor / Rope Lining to Baler	Woven Material	Low
External / Office Building / Ground Floor / Switchboard Room, Wall Lining	Fibre Cement Sheeting	Low
External / Office Building / Ground Floor / Within Office, Main Switchboard and Redundant Fuses	HRC Fuses	Low
External / Private Residence / Ground Level / Eaves	Fibre Cement Sheeting	Low
External / Private Residence / Ground Level / Subfloor, Debris Throughout	Fibre Cement Sheet	Low
External / Private Residence / Ground Level / Within Subfloor, Packing Material Under Stairwell	Fibre Cement Sheet	Low
External / Recreation Hall / Ground Floor / Eaves	Fibre Cement Sheeting	Low
External / Stone Lodge / Ground Floor / Eaves to Western Building	Fibre Cement Sheeting	Low
External / Visiting Teachers Residence / Ground Floor / Eaves	Fibre Cement Sheeting	Low
Internal / Accommodation Lodges / Ground Floor / Within Wall Mounted Switchboard Cupboards	HRC Fuses	Low
Internal / Dining Hall / Ground Floor / Laundry Room, Wall Lining	Fibre Cement Sheeting	Low
Internal / Office Building / Ground Floor / First Aid Room, Rope Insulation to Safe	Woven Material	Low

Internal / Office Building / Ground Floor / Plant Room, Wall Lining	Fibre Cement Sheeting	Low
Internal / Pool Area / Ground Floor / Male and Female Bathrooms, Ceiling Lining	Fibre Cement Sheeting	Low
Internal / Private Residence / Ground Floor / Bathroom, Behind Ceramic Tiles	Fibre Cement Sheeting	Low
Internal / Private Residence / Ground Floor / Laundry, Wall Lining	Fibre Cement Sheeting	Low
Internal / Recreation Hall / Ground Floor / Main Switchboard Cupboard	HRC Fuses	Low

2.1.2. Lead Based Paint

Location	Material Description	Risk Rating
External / Office Building / Ground Floor / Baler	Green 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 / Manager on Call House / Ground Floor / Ensuite Bathroom, Behind Wall Lining	Insulation Material	Low
External / Private Residence / Ground Level / North Elevation of Building, Hot Water Heater	Internal Insulation	Very Low
External / Stone Lodge / Ground Floor / Eastern Building, Hot Water Unit	Internal Insulation	Very Low
External / Stone Lodge / Ground Floor / Eastern Building, Underside of Roof	Sarking Insulation	Very Low
Internal / Accommodation Lodges / Ground Floor / Lodges, Hot Water Unit	Internal Insulation	Very Low
Internal / Dining Hall / Ground Floor / Dining Room, Below Sink, Zip Hydrotap	Internal Insulation	Very Low
Internal / Pool Area / Ground Floor / Adjacent Pool, Hot Water Unit	Internal Insulation	Very Low
Internal / Recreation Hall / Ground Floor / Tap Room, Hot Water Heater	Internal Insulation	Very Low

Internal / Recreation Hall / Ground Floor / Underside of Roof	Sarking Insulation	Very Low
Internal / Recreation Hall / Ground Floor / Within Kitchen/Storeroom, Zip HydroTap	Internal Insulation	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

Location	Material Description	Risk Rating
External / Office Building / Ground Floor / West of Building, Air Conditioning Unit	R22 Hydrochlorofluorocarbon (HCFC)	Very Low
Internal / Accommodation Lodges / Ground Floor / Lodges, Air Conditioning Unit	Unknown Refrigerant	Very Low

2.1.7. 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 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.

2.1.8. 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

2.1.9. 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

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- Formwork to concrete slabs
- 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 qualities 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.

- A destructive hazardous building material survey must be carried out prior to any demolition or refurbishment works. All asbestos and hazardous materials identified and likely to be disturbed by those 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. 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.

3.5. 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;

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- 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, TTC should be contacted immediately so that a WHS consultant can confirm the status of the suspect material/s.

TTC 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	Risk Rating	Reinspect Date	Recommendations	Line ID
External	Chemicals Storage Shed / Ground Floor / Eaves to Entrance Side of Shed	Compressed Cement Sheeting	Asbestos	Al07348.1	No Asbestos Detected	-	3 m²	-	-	-	1
External	Chemicals Storage Shed / Ground Floor / Walls, Weatherboard Cladding	Compressed Cement Sheeting	Asbestos	AI07348	No Asbestos Detected	-	40 m²	-	-	-	2
External	Holiday Units 1-4 / Ground Floor / Fascia Panels	Fibre Cement Sheeting	Asbestos	A24253	No Asbestos Detected	-	500 m²	-	-	-	3
External	Office Building / Ground Floor / Rope Lining to Baler	Woven Material	Asbestos	754- SYDEN311850 230A6	Suspected Asbestos	Friable	2 m	Low	5 Yearly Reinspection	No access without significant damage. Confirm status and maintain in current condition if to remain in-situ in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes. 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.	4
External	Office Building / Ground Floor / Switchboard Room, Wall Lining	Fibre Cement Sheeting	Asbestos	A24254	Chrysotile Asbestos Detected	Non-Friable	20 m²	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ. 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	5

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
										Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
External	Office Building / Ground Floor / Within Office, Main Switchboard and Redundant Fuses	HRC Fuses	Asbestos	754- SYDEN311850 230A5	Suspected Asbestos	Friable	20 Units	Low	5 Yearly Reinspection	Not sampled due to live equipment. 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.	6
External	Private Residence / Ground Level / Eaves	Fibre Cement Sheeting	Asbestos	Al07353	Chrysotile and Amosite Asbestos Detected	Non-Friable	50 m²	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ. 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	Private Residence / Ground Level / Subfloor, Debris Throughout	Fibre Cement Sheet	Asbestos	A24251.1	Chrysotile Asbestos Detected	Non-Friable	2 m²	Low	As soon as reasonably practicable	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.	8
External	Private Residence / Ground Level / Subfloor, Layered on Concrete	Hessian Backed Paper Material	Asbestos	A24255	No Asbestos Detected	-	30 m²	-	-	-	9

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
External	Private Residence / Ground Level / Within Subfloor, Packing Material Under Stairwell	Fibre Cement Sheet	Asbestos	A24251	Chrysotile Asbestos Detected	Non-Friable	0.5 m²	Low	5 Yearly Reinspection	Encapsulate exposed sections, label as containing asbestos and maintain in a good condition if to remain in-situ. 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	Recreation Hall / Ground Floor / Eaves	Fibre Cement Sheeting	Asbestos	754- SYDEN311850 230A1	Suspected Asbestos	Non-Friable	100 m²	Low	5 Yearly Reinspection	Not sampled due to height restrictions. Confirm status and maintain in current condition if to remain in-situ. 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	Recreation Hall / Ground Floor / Walls, Weatherboard Cladding	Compressed Cement Sheeting	Asbestos	AI07349	No Asbestos Detected	-	200 m²	-	-	-	12
External	Rotunda Canopy / Ground Floor / Debris to Soil Adjacent Rotunda Canopy	Moulded Fibre Cement Debris	Asbestos	A24272	Chrysotile Asbestos Detected	-	1 m²	Medium	As soon as reasonably practicable	Remove under controlled non-friable asbestos removal conditions 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
External	Rotunda Canopy / Ground Floor / Walls Within Canopy Area	Compressed Cement Sheeting	Asbestos	A107348.2	No Asbestos Detected	-	2 m²	-	-	_	14

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
External	Stone Lodge / Ground Floor / Eaves to Western Building	Fibre Cement Sheeting	Asbestos	754- SYDEN311850 230A9	Suspected Asbestos	Non-Friable	40 m²	Low	5 Yearly Reinspection	Not sampled due to height restrictions. Encapsulate exposed sections, label as containing asbestos and maintain in a good condition if to remain in-situ. 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
External	Visiting Teachers Residence / Ground Floor / Eaves	Fibre Cement Sheeting	Asbestos	754- SYDEN311850 230A10	Suspected Asbestos	Non-Friable	40 m²	Low	5 Yearly Reinspection	Not sampled due to height restrictions. Confirm status and maintain in current condition if to remain in-situ. 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.	16
Internal	Accommodation Lodges / Ground Floor / Within Wall Mounted Switchboard Cupboards	HRC Fuses	Asbestos	754- SYDEN311850 230A8	Suspected Asbestos	Friable	50 Units	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes. 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.	17
Internal	Dining Hall / Ground Floor / Laundry Room, Wall Lining	Fibre Cement Sheeting	Asbestos	A24254.2	Chrysotile Asbestos Detected	Non-Friable	10 m²	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ. 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	18

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
										Regulations, Compliance Codes, Codes of Practice and Guidance Notes.	
Internal	Maintenance Shed / Ground Floor / Dividing Wall	Fibre Cement Sheet	Asbestos	A107346	No Asbestos Detected	-	20 m²	-	-	-	19
Internal	Manager on Call House / Ground Floor / Ensuite Bathroom, Behind Ceramic Tiles	Compressed	Asbestos	A24256	No Asbestos Detected	-	10 m²	-	-	-	20
Internal	Manager on Call House / Ground Floor / Northern Room, Wall and Ceiling Lining	Fibre Cement Sheeting	Asbestos	A24252	No Asbestos Detected	-	30 m²	-	-	-	21
Internal	Manager on Call House / Ground Floor / South-East Subfloor, Wall Lining	Fibre Cement Sheeting	Asbestos	A24247	No Asbestos Detected	-	40 m²	-	-	-	22
Internal	Manager on Call House / Level One / Bathroom and Toilet, Wall Lining and Behind Ceramic Wall Tiles	Fibre Cement Sheeting	Asbestos	A24248	No Asbestos Detected	-	10 m²	-	-		23

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Meeting Room / Ground Floor / Aboriginal Museum, Wall Lining	Fibre Cement Sheeting	Asbestos	A24271	No Asbestos Detected	-	50 m²	-	-	-	24
Internal	Office Building / Ground Floor / First Aid Room, Rope Insulation to Safe	Woven Material	Asbestos	754- SYDEN311850 230A7	Suspected Asbestos	Friable	2 m	Low	5 Yearly Reinspection	No access without significant damage. Confirm status and maintain in current condition if to remain in-situ in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes. 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.	25
Internal	Office Building / Ground Floor / Plant Room, Wall Lining	Fibre Cement Sheeting	Asbestos	A24254.1	Chrysotile Asbestos Detected	Non-Friable	5 m²	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ. 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	Pool Area / Ground Floor / Female and Male Bathrooms, Wall Lining and Cubicle Partitions	Compressed Cement Sheeting	Asbestos	A24270	No Asbestos Detected	-	70 m²	_	-	_	27

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Pool Area / Ground Floor / Male and Female Bathrooms, Ceiling Lining	Fibre Cement Sheeting	Asbestos	754- SYDEN311850 230A11	Suspected Asbestos	Non-Friable	40 m²	Low	5 Yearly Reinspection	Not sampled due to height restrictions. Confirm status and maintain in current condition if to remain in-situ. 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	Private Residence / Ground Floor / Bathroom, Behind Ceramic Tiles	Fibre Cement Sheeting	Asbestos	754- SYDEN311850 230A3	Suspected Asbestos	Non-Friable	25 m²	Low	5 Yearly	No access without significant damage. Confirm status and maintain in current condition if to remain in-situ. 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
Internal	Private Residence / Ground Floor / Laundry Room, Under Sink, Sink Pad	Bituminous Membrane	Asbestos	AI07352	No Asbestos Detected	-	0.5 m²	-	-	-	30
Internal	Private Residence / Ground Floor / Laundry, Wall Lining	Fibre Cement Sheeting	Asbestos	Al07351	Chrysotile Asbestos Detected	Non-Friable	25 m²	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ. 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.	31

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Private Residence / Ground Floor / Within Kitchen, Under Sink, Sink Pad	Bituminous Membrane	Asbestos	A107350	No Asbestos Detected	-	0.5 m²	-	-	-	32
Internal	Recreation Hall / Ground Floor / Main Switchboard Cupboard	HRC Fuses	Asbestos	754- SYDEN311850 230A2	Suspected Asbestos	Friable	10 Units	Low	5 Yearly Reinspection	Maintain in current condition if to remain in-situ in accordance with relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes. 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.	33
External	Office Building / Ground Floor / Baler	Green Paint	Lead Paint	L19825	Lead Detected (0.46% w/w)	-	2 m²	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.	34
External	Private Residence / Ground Level / North Elevation of Building, Hot Water Heater	Internal Insulation	SMF	754- SYDEN311850 230S4	Suspected SMF	-	2 Units	Very Low		Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	35

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
External	Stone Lodge / Ground Floor / Eastern Building, Hot Water Unit	Internal Insulation	SMF	754- SYDEN311850 230S8	Suspected SMF	-	1 Unit	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	36
External	Stone Lodge / Ground Floor / Eastern Building, Underside of Roof	Sarking Insulation	SMF	754- SYDEN311850 230S9	Suspected SMF	-	150 m²	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	37
Internal	Accommodation Lodges / Ground Floor / Lodges, Hot Water Unit	Internal Insulation	SMF	754- SYDEN311850 230S7	Suspected SMF	-	4 Units	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	38
Internal	Dining Hall / Ground Floor / Dining Room, Below Sink, Zip Hydrotap	Internal Insulation	SMF	754- SYDEN311850 230S6	Suspected SMF	-	1 Unit	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	39
Internal	Manager on Call House / Ground Floor / Ensuite Bathroom, Behind Wall Lining	Insulation Material	SMF	754- SYDEN311850 230S5	Suspected SMF	-	20 m²	Low	-	Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	40
Internal	Pool Area / Ground Floor / Adjacent Pool, Hot Water Unit	Internal Insulation	SMF	754- SYDEN311850 230S10	Suspected SMF	-	2 Units	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	41

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
Internal	Recreation Hall / Ground Floor / Tap Room, Hot Water Heater	Internal Insulation	SMF	754- SYDEN311850 230S1	Suspected SMF	-	1 Unit	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	42
Internal	Recreation Hall / Ground Floor / Underside of Roof	Sarking Insulation	SMF	754- SYDEN311850 230S2	Suspected SMF	-	200 m²	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	43
Internal	Recreation Hall / Ground Floor / Within Kitchen/Storeroom, Zip Hydrotap	Internal Insulation	SMF	754- SYDEN311850 230S3	Suspected SMF	-	1 Unit	Very Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)].	44
External	Holiday Units 1-4 / Ground Floor / Throughout, Wall Mounted Air Conditioning Unit	R410A Hydrofluorocarbon (HFC)	ODS	754- SYDEN311850 230O8	Non ODS Refrigerant	-	4 Units	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	45
External	Office Building / Ground Floor / Plant Room, Compressors	R404A Refrigerannt	ODS	754- SYDEN311850 230O5	Non ODS Refrigerant	-	1 Unit	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	46
External	Office Building / Ground Floor / South of Building, Air Conditioning Unit	R410A Hydrofluorocarbon (HFC)	ODS	754- SYDEN311850 230O4	Non ODS Refrigerant	-	4 Units	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	47

Area	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
External	Office Building / Ground Floor / West of Building, Air Conditioning Unit	R22 Hydrochlorofluoroca rbon (HCFC)	ODS	754- SYDEN311850 230O3	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.	48
External	Private Residence / Ground Level / East Elevation of Building, Air Conditioning Unit	R410A Hydrofluorocarbon (HFC)	ODS	754- SYDEN311850 230O1	Non ODS Refrigerant	-	1 Unit	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	49
External	Visiting Teachers Residence / Ground Floor / South Elevation of Building, Air Conditioning Unit	R410A Hydrofluorocarbon (HFC)	ODS	754- SYDEN311850 23007	Non ODS Refrigerant	-	1 Unit	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	50
Internal	Accommodation Lodges / Ground Floor / Lodges, Air Conditioning Unit	Unknown Refrigerant	ODS	754- SYDEN311850 230O6	Suspected ODS	-	8 Units	Very Low	-	No data was visible at the time of the assessment. Confirm status of suspected ozone depleting substances identified in the assessment.	51
Internal	Manager on Call House / Ground Floor / Within Various Rooms, Air Conditioning Unit	R410A Hydrofluorocarbon (HFC)	ODS	754- SYDEN311850 230O2	Non ODS Refrigerant	-	3 Units	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	52

A	rea	Location	Material Description	Hazard	Reference No.	Result	Friable	Quantity	Risk Rating	Reinspect Date	Recommendations	Line ID
Inte	ernal	Meeting Room / Ground Floor / South Elevation, Air Conditioning Unit	R410A Hydrofluorocarbon (HFC)	ODS	754- SYDEN311850 230O9	Non ODS Refrigerant	-	1 Unit	-	-	Hydrofluorocarbon (HFC) non ozone depleting substances.	53

Appendix B: Laboratory Analysis Certificate

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Bulk Identification Report

Job No:	754-SYDEN311850 Bulk ID Report Office of Sport Broken Bay Sport & Recrea	ation Centre 19012023	
Client:	Office of Sport		A
Client Address:	Level 3, 6B Figtree Drive, Sydney Olympic Park NSW 2127		
Contact:	Matt Brown		
E-mail:	matt.brown@sport.nsw.gov.au		\mathbf{V}
Date Sampled:	17-01-23	Accredited for co	mpliance with ISO/IEC 17025 - Testing
Date Analysed:	18-01-23		Accreditation No:2220
Date Authorised:	19-01-23	C	orporate Site No:16909
Sampled By:	Mona Izzeldin		
Site:	Broken Bay Sport & Recreation Centre, Hawkesbury River NSW		
	Please note: Where you have provided the samples for analysis, Tetra Tech C the such samples. This report relates exclusively to the samples analysed by T submitted or collected for analysis have been considered in presenting these representative of the site, product or source material as a whole. Tetra Tech C relation to the site, product or source material as a whole. If you suspect any n and activities at the site or in respect of the materials and engage Tetra Tech C sample, assess or re-assess (as the case may be) the material suspected to c	Fetra Tech Coffey Pty Ltd results. The data and resu coffey Pty Ltd (TTC) does naterial to contain asbest Coffey Pty Ltd (TTC) or a	(TTC) and as such only the samples ults contained in this report are not not make any warranty or representation in os, then you must immediately stop the works
Test Method:	Asbestos in Bulk Samples and Non-homogenous Material Tetra Tech Coffey Pty Ltd (TTC) analyses bulk samples for asbestos using po accordance with Coffey SOP WILAB1, and Australian Standard (AS) 4964 – 2 samples (AS 4964). The detection limit for the test method as per AS 4964 is 0 adopted for the test method and is taken into account when reporting the resul WILAB1 sample retention periods are set at 1 month for all samples from the 0	004, Method for the quali 0.1 g/kg. For non-homoge lts. As per Tetra Tech Co	tative identification of asbestos in bulk enous samples a semi-quantitative aspect is
Analysed At:	Tetra Tech Coffey Pty Ltd (TTC) Laboratory, Level 20, Tower B, Citadel Tower	rs 799 Pacific Highway C	hatswood NSW 2067.
Total Samples:	18		
Approved Identifie Panika Wongchand		Approved Signatory Matthew Tang	
Sample No.	Location & Description	Sample Size (~)	Results
Sample No. A24247	Location & Description Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material	Sample Size (~) 30 x 17 x 4 mm	Results No asbestos fibres detected Organic fibres detected
	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre		No asbestos fibres detected
A24247	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige	30 x 17 x 4 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected
A24247 A24248	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under	30 x 17 x 4 mm 20 x 15 x 3 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected Chrysotile (white asbestos) detected
A24247 A24248 A24251	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining,	30 x 17 x 4 mm 20 x 15 x 3 mm 18 x 10 x 4 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected Chrysotile (white asbestos) detected Organic fibres detected No asbestos fibres detected
A24247 A24248 A24251 A24252	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material	30 x 17 x 4 mm 20 x 15 x 3 mm 18 x 10 x 4 mm 25 x 12 x 3 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected Chrysotile (white asbestos) detected Organic fibres detected Organic fibres detected No asbestos fibres detected
A24247 A24248 A24251 A24252 A24253	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Holiday Units 1-4, Fascia Panels, Fibre Cement Sheeting - Red painted beige layered fibre cement sheet material External, Office Building, Switchboard Room Wall Lining, Fibre Cement	30 x 17 x 4 mm 20 x 15 x 3 mm 18 x 10 x 4 mm 25 x 12 x 3 mm 10 x 5 x 3 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected Chrysotile (white asbestos) detected Organic fibres detected No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected
A24247 A24248 A24251 A24252 A24253 A24254	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Holiday Units 1-4, Fascia Panels, Fibre Cement Sheeting - Red painted beige layered fibre cement sheet material External, Office Building, Switchboard Room Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Office Building, Switchboard Room Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Private Residence, Throughout, Layered On Concrete, Hessian	30 x 17 x 4 mm 20 x 15 x 3 mm 18 x 10 x 4 mm 25 x 12 x 3 mm 10 x 5 x 3 mm 15 x 12 x 3 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected Chrysotile (white asbestos) detected Organic fibres detected No asbestos fibres detected Organic fibres detected
A24247 A24248 A24251 A24252 A24253 A24253 A24254 A24255	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Holiday Units 1-4, Fascia Panels, Fibre Cement Sheeting - Red painted beige layered fibre cement sheet material External, Office Building, Switchboard Room Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Private Residence, Throughout, Layered On Concrete, Hessian Backed Paper Material - Brown bituminous vitreous fibrous sheet material Internal, Manager On Call House, Ensuite Bathroom, Behind Ceramic Tiles,	30 x 17 x 4 mm 20 x 15 x 3 mm 18 x 10 x 4 mm 25 x 12 x 3 mm 10 x 5 x 3 mm 15 x 12 x 3 mm 50 x 23 x 2 mm	No asbestos fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected Chrysotile (white asbestos) detected Organic fibres detected No asbestos fibres detected Organic fibres detected No asbestos fibres detected
A24247 A24248 A24251 A24252 A24253 A24254 A24255 A24256	Internal, Manager On Call House, South-East Subfloor, Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Bathroom And Toilet Wall Lining And Behind Ceramic Wall Tiles, Fibre Cement Sheeting - Cream painted beige layered fibre cement sheet material External, Private Residence, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Northern Room, Wall And Ceiling Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Holiday Units 1-4, Fascia Panels, Fibre Cement Sheeting - Red painted beige layered fibre cement sheet material External, Office Building, Switchboard Room Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Office Building, Switchboard Room Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material External, Private Residence, Throughout, Layered On Concrete, Hessian Backed Paper Material - Brown bituminous vitreous fibrous sheet material Internal, Manager On Call House, Ensuite Bathroom, Behind Ceramic Tiles, Compressed Cement Sheeting - Beige layered fibre cement sheet material Internal, Manager On Call House, Ensuite Bathroom, Behind Ceramic Tiles, Compressed Cement Sheeting - Beige layered fibre cement sheet material	30 x 17 x 4 mm 20 x 15 x 3 mm 18 x 10 x 4 mm 25 x 12 x 3 mm 10 x 5 x 3 mm 15 x 12 x 3 mm 50 x 23 x 2 mm 70 x 35 x 4 mm	No asbestos fibres detected Organic fibres detected Organic fibres detected Chrysotile (white asbestos) detected Organic fibres detected Organic fibres detected No asbestos fibres detected Organic fibres detected No asbestos fibres detected Synthetic mineral fibres detected No asbestos fibres detected

Sample No.	Location & Description	Sample Size (~)	Results
AI07346	Internal, Maintenance Shed, Maintenance Shed Dividing Wall, Fibre Cement Sheet - Green painted beige layered fibre cement sheet material	22 x 18 x 4 mm	No asbestos fibres detected Organic fibres detected
AI07348	External, Chemicals Storage Shed, Weatherboard Cladding To External Walls, Compressed Cement Sheeting - Beige layered fibre cement sheet material	28 x 20 x 3 mm	No asbestos fibres detected Organic fibres detected
AI07349	External, Recreation Hall, Weatherboard Cladding To External Walls, Compressed Cement Sheeting - Brown painted beige layered fibre cement sheet material	45 x 19 x 2 mm	No asbestos fibres detected Organic fibres detected
AI07350	Internal, Private Residence, Within Kitchen, Under Sink, Sink Pad, Bituminous Membrane - Black bituminous membrane material	52 x 22 x 2 mm	No asbestos fibres detected Organic fibres detected Synthetic mineral fibres detected
AI07351	Internal, Private Residence, Laundry Wall Lining, Fibre Cement Sheeting - Beige layered fibre cement sheet material	35 x 8 x 3 mm	Chrysotile (white asbestos) detected Organic fibres detected
AI07352	Internal, Private Residence, Laundry Room, Under Sink, Sink Pad, Bituminous Membrane - Black bituminous membrane material	10 x 4 x 3 mm	No asbestos fibres detected Organic fibres detected
AI07353	External, Private Residence, Eaves, Throughout Building Externals, Fibre Cement Sheeting - White painted beige layered fibre cement sheet material	18 x 11 x 3 mm	Chrysotile (white asbestos) detected Amosite (brown asbestos) detected

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CERTIFICATE OF ANALYSIS 314632

Client Details	
Client	Tetra Tech Coffey Pty Ltd
Attention	Mona Izzeldin
Address	Level 19, Tower B, Citadel Tower, 799 Pacific Hwy, Chatswood, NSW, 2067

Sample Details			
Your Reference	754-SYDEN311850 NSW Sport Broken Bay		
Number of Samples	1 Paint		
Date samples received	17/01/2023		
Date completed instructions received	17/01/2023		

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	18/01/2023		
Date of Issue	18/01/2023		
NATA Accreditation Number 29	01. 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 *			

<u>Results Approved By</u> Hannah Nguyen, Metals Supervisor Authorised By

Nancy Zhang, Laboratory Manager



Lead in Paint		
Our Reference		314632-1
Your Reference	UNITS	L19825
Date Sampled		17/01/2023
Type of sample		Paint
Date prepared	-	18/01/2023
Date analysed	-	18/01/2023
Lead in paint	%w/w	0.46

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-1	[NT]
Date prepared	-			18/01/2023	[NT]	[NT]		[NT]	18/01/2023	
Date analysed	-			18/01/2023	[NT]	[NT]		[NT]	18/01/2023	
Lead in paint	%w/w	0.005	Metals-020/021/022	<0.005	[NT]	[NT]		[NT]	100	

Result Definiti	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.

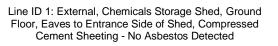
Measurement Uncertainty estimates are available for most tests upon request.

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





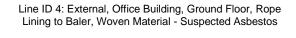


Line ID 2: External, Chemicals Storage Shed, Ground Floor, Walls, Weatherboard Cladding, Compressed Cement Sheeting - No Asbestos Detected





Line ID 3: External, Holiday Units 1-4, Ground Floor, Fascia Panels, Fibre Cement Sheeting - No Asbestos Detected





Line ID 5: External, Office Building, Ground Floor, Switchboard Room, Wall Lining, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 6: External, Office Building, Ground Floor, Within Office, Main Switchboard and Redundant Fuses, HRC Fuses - Suspected Asbestos



Line ID 7: External, Private Residence, Ground Level, Eaves, Fibre Cement Sheeting - Chrysotile and Amosite Asbestos Detected



Line ID 8: External, Private Residence, Ground Level, Subfloor, Debris Throughout, Fibre Cement Sheet -Chrysotile Asbestos Detected





Line ID 9: External, Private Residence, Ground Level, Subfloor, Layered on Concrete, Hessian Backed Paper Material - No Asbestos Detected



Line ID 11: External, Recreation Hall, Ground Floor, Eaves, Fibre Cement Sheeting - Suspected Asbestos

Line ID 10: External, Private Residence, Ground Level, Within Subfloor, Packing Material Under Stairwell, Fibre Cement Sheet - Chrysotile Asbestos Detected



Line ID 12: External, Recreation Hall, Ground Floor, Walls, Weatherboard Cladding, Compressed Cement Sheeting -No Asbestos Detected





Line ID 13: External, Rotunda Canopy, Ground Floor, Debris to Soil Adjacent Rotunda Canopy, Moulded Fibre Cement Debris - Chrysotile Asbestos Detected

Line ID 14: External, Rotunda Canopy, Ground Floor, Walls Within Canopy Area, Compressed Cement Sheeting - No Asbestos Detected



Line ID 15: External, Stone Lodge, Ground Floor, Eaves to Western Building, Fibre Cement Sheeting -Suspected Asbestos



Line ID 16: External, Visiting Teachers Residence, Ground Floor, Eaves, Fibre Cement Sheeting - Suspected Asbestos



Line ID 17: Internal, Accommodation Lodges, Ground Floor, Within Wall Mounted Switchboard Cupboards, HRC Fuses - Suspected Asbestos



Line ID 18: Internal, Dining Hall, Ground Floor, Laundry Room, Wall Lining, Fibre Cement Sheeting - Chrysotile Asbestos Detected



Line ID 19: Internal, Maintenance Shed, Ground Floor, Dividing Wall, Fibre Cement Sheet - No Asbestos Detected



Line ID 20: Internal, Manager on Call House, Ground Floor, Ensuite Bathroom, Behind Ceramic Tiles, Compressed Cement Sheeting - No Asbestos Detected





Line ID 21: Internal, Manager on Call House, Ground Floor, Northern Room, Wall and Ceiling Lining, Fibre Cement Sheeting - No Asbestos Detected

Line ID 22: Internal, Manager on Call House, Ground Floor, South-East Subfloor, Wall Lining, Fibre Cement Sheeting -No Asbestos Detected





Line ID 23: Internal, Manager on Call House, Level One, Bathroom and Toilet, Wall Lining and Behind Ceramic Wall Tiles, Fibre Cement Sheeting - No Asbestos Detected

Line ID 24: Internal, Meeting Room, Ground Floor, Aboriginal Museum, Wall Lining, Fibre Cement Sheeting -No Asbestos Detected



Line ID 25: Internal, Office Building, Ground Floor, First Aid Room, Rope Insulation to Safe, Woven Material -Suspected Asbestos



Line ID 26: Internal, Office Building, Ground Floor, Plant Room, Wall Lining, Fibre Cement Sheeting - Chrysotile Asbestos Detected





Line ID 27: Internal, Pool Area, Ground Floor, Female and Male Bathrooms, Wall Lining and Cubicle Partitions, Compressed Cement Sheeting - No Asbestos Detected

Line ID 28: Internal, Pool Area, Ground Floor, Male and Female Bathrooms, Ceiling Lining, Fibre Cement Sheeting -Suspected Asbestos



Line ID 29: Internal, Private Residence, Ground Floor, Bathroom, Behind Ceramic Tiles, Fibre Cement Sheeting - Suspected Asbestos



Line ID 30: Internal, Private Residence, Ground Floor, Laundry Room, Under Sink, Sink Pad, Bituminous Membrane - No Asbestos Detected

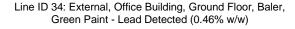


Line ID 31: Internal, Private Residence, Ground Floor, Laundry, Wall Lining, Fibre Cement Sheeting -Chrysotile Asbestos Detected

Line ID 32: Internal, Private Residence, Ground Floor, Within Kitchen, Under Sink, Sink Pad, Bituminous Membrane - No Asbestos Detected



Line ID 33: Internal, Recreation Hall, Ground Floor, Main Switchboard Cupboard, HRC Fuses - Suspected Asbestos

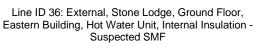


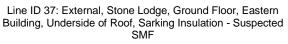


Line ID 35: External, Private Residence, Ground Level, North Elevation of Building, Hot Water Heater, Internal Insulation - Suspected SMF

Line ID 35.1: External, Private Residence, Ground Level, North Elevation of Building, Hot Water Heater, Internal Insulation - Suspected SMF











Line ID 38: Internal, Accommodation Lodges, Ground Floor, Lodges, Hot Water Unit, Internal Insulation -Suspected SMF



Line ID 40: Internal, Manager on Call House, Ground Floor, Ensuite Bathroom, Behind Wall Lining, Insulation Material - Suspected SMF

Line ID 39: Internal, Dining Hall, Ground Floor, Dining Room, Below Sink, Zip Hydrotap, Internal Insulation -Suspected SMF



Line ID 41: Internal, Pool Area, Ground Floor, Adjacent Pool, Hot Water Unit, Internal Insulation - Suspected SMF



Line ID 42: Internal, Recreation Hall, Ground Floor, Tap Room, Hot Water Heater, Internal Insulation -Suspected SMF



Line ID 43: Internal, Recreation Hall, Ground Floor, Underside of Roof, Sarking Insulation - Suspected SMF





Line ID 44: Internal, Recreation Hall, Ground Floor, Within Kitchen/Storeroom, Zip Hydrotap, Internal Insulation - Suspected SMF



Line ID 46: External, Office Building, Ground Floor, Plant Room, Compressors, R404A Refrigerannt - Non ODS Refrigerant

Line ID 45: External, Holiday Units 1-4, Ground Floor, Throughout, Wall Mounted Air Conditioning Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 47: External, Office Building, Ground Floor, South of Building, Air Conditioning Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 48: External, Office Building, Ground Floor, West of Building, Air Conditioning Unit, R22 Hydrochlorofluorocarbon (HCFC) - ODS Refrigerant





Line ID 49: External, Private Residence, Ground Level, East Elevation of Building, Air Conditioning Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant



Line ID 50: External, Visiting Teachers Residence, Ground Floor, South Elevation of Building, Air Conditioning Unit, R410A Hydrofluorocarbon (HFC) -Non ODS Refrigerant

Line ID 51: Internal, Accommodation Lodges, Ground Floor, Lodges, Air Conditioning Unit, Unknown Refrigerant -Suspected ODS



Line ID 52: Internal, Manager on Call House, Ground Floor, Within Various Rooms, Air Conditioning Unit, R410A (HFC) - Non ODS Refrigerant



Line ID 53: Internal, Meeting Room, Ground Floor, South Elevation, Air Conditioning Unit, R410A Hydrofluorocarbon (HFC) - Non ODS Refrigerant

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.

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

Table 2 - Risk Scores

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 <i>4361.2:2017</i> 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, LBP systems, LCD, SMF, 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 TTC'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 TTC'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

The survey inspection conducted was not a destructive pre demolition/ refurbishment survey. A destructive hazardous building material survey must be carried out prior to any demolition or refurbishment works.

TTC 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 TTC. 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 TTC 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

TTC 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. TTC 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 undertake 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.