Appendix D

HAZARDOUS MATERIALS SURVEY

Australian National University

Acton Campus

Building # 40

Hazardous Materials Report

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SAFE WORK & ENVIRONMENTS

HAZARDOUS MATERIALS SURVEY & REGISTER: BUILDING 40, THE AUSTRALIAN NATIONAL UNIVERSITY, ACTON CAMPUS, ACTON ACT

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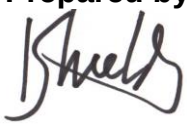

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1 INTRODUCTION

Safe Work and Environments Pty Ltd (SWE) was commissioned by the Australian National University (ANU) Facilities & Services Division to undertake a Hazardous Materials Survey of Building 40 (Bruce Hall) located at the ANU Acton Campus, Acton, ACT. The survey was undertaken by Mr. Kieran Shields (ACT Licensed Asbestos Assessor No. 2014149) between 21st and 23rd of January, 2015. The purpose of the survey was to identify hazardous materials within the building, document findings and produce a current hazardous materials register for the site which can be incorporated into the site asbestos materials management plan in compliance with the *ACT Dangerous Substances (General) Regulation* (2004).

1.1 Scope of Works

The scope of works involved the following:

- Development of a task specific Safe Work Method Statement (SWMS);
- Walkthrough inspection of the site buildings (Blocks A, B, C, D, Amenities and Central);
- Identification of visible and accessible hazardous materials including asbestos, lead, SMF, PCBs & ODSs;
- Sampling of suspect materials where necessary/possible;
- Laboratory analysis of selected samples where the assessor suspected the presence of asbestos or lead containing materials; and
- Preparation of a Hazardous Materials Register with photographs of identified hazardous items and site plans marked up to show the location of asbestos items.

1.2 Objectives

The objectives of the Hazardous Materials Survey report are to:

- Identify hazardous materials within site buildings;
- Detail the survey methodology;
- Provide a qualitative risk assessment of the identified hazardous materials and provide information regarding health risks;
- Provide recommendations for control measures and management strategies;
- Prepare a document containing including the Hazardous Materials Register for the site to ensure compliance with regulation and the existing site management plan.

1.3 Background

The site has not been previously assessed by Safe Work and Environments. The purpose of the survey was to comply with current regulations and to identify asbestos containing materials within the building to enable the asbestos containing materials to be managed.

It is a requirement of the *ACT Dangerous Substances (General) Regulation* (2004) that all non-domestic premises built before December 2003 have in place an Asbestos Management Plan including an Asbestos Materials Register. These plans must be compiled by an ACT appropriately licensed Asbestos Assessor.

1.4 Legislative Requirements

The survey works and production of this report have been undertaken in accordance with the requirements of:

- *Work Health and Safety Act 2011.*
- *ACT Dangerous Substances Act 2004.*
- *Dangerous Substances (General) Regulation 2004.*
- *Dangerous Substances (General) Amendment Regulation 2007.*
- *AS2601 (2001) The Demolition of Structures.*
- SafeWork Australia Code of Practice: *How to Manage and Control Asbestos in the Workplace* (2011).
- SafeWork Australia Code of Practice: *How to Safely Remove Asbestos* (2011).
- *National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].*
- *National Standard for Synthetic Mineral Fibres [NOHSC:1004(1990)].*
- *AS4361.1 (1995) Guide to Lead Paint Management. Part 1: Industrial Applications.*
- *AS4361.2 (1998) Guide to Lead Paint Management. Part 2: Residential and Commercial Buildings.*
- *ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors.*

2 SURVEY METHODOLOGY

Hazardous materials surveys (including asbestos (AS), synthetic mineral fibre (SMF [in friable and exposed condition]), lead based paint systems (Pb), Ozone Depleting Substances (ODS) and Polychlorinated Biphenyls (PCB)) are carried out applying a risk management approach to identify, assess and ultimately control the risk associated with the identified materials. Furthermore semi-quantitative asbestos risk assessment methodology was applied to assess the risk of all identified asbestos situations. This assessment methodology is presented in the below section 3.0 Asbestos Risk Assessment.

The survey comprises a walk through survey of the accessible areas of the premises and may also include the gathering of anecdotal information available from the public space, building occupants, owners and property management where available. Based upon the aforementioned information sources and physical inaccessibility on the day of the assessment, building fabric and fittings suspected of containing any of the above referenced hazardous materials are identified by means of visual observation and representative sampling. Sampling for asbestos and lead based paint systems will be confirmed by laboratory analysis. These findings will then be included in the hazardous materials register (Section 4.0) with all notated items risk assessed as per the above mentioned methodology.

The surveys are typically limited to the experience and training of the surveyor(s) and the information and access made available at the time of the survey by the client. All SWE surveyors are trained in accordance with our in house hazardous materials consulting manual and work instructions for asbestos and hazardous materials surveys, which amongst other parameters requires that all surveyors are trained by and 'shadowed' on numerous diverse sites by a competent and experienced surveyor prior to carrying out independent surveys. There is, however, still a possibility that some hazardous (asbestos) materials may not be identified as any surveying is subject to human error.

Where necessary the surveyor will sample suspected hazardous material situations to confirm or refute the presence asbestos fibres or other hazardous item within the sampled materials. All sampling is undertaken by use of representative sampling which caters for numerous similar situations when appropriate. This means that a close inspection of all similar situations within the site is carried out, however, sampling may not be undertaken to reduce the risk of disturbance of materials, exposure to occupants and surveyor and analytical costs for client. Some sampling is also conducted as what is referred to as presumptive sampling. Presumptive samples may be included in the hazardous materials register where no actual sample is collected but there is reason to presume that a hazardous material may be present; however, no access and/or safe access for sampling and/or no visual access can be obtained. Examples of typical presumptive samples are millboard insulation to electrical duct heaters, electrical backing boards, lift brake linings and similar. Sample collection is conducted in a non-destructive and non-invasive manner.

A standard hazardous materials survey does not include access and inspection of any areas that will require special access permits or other means of access to restricted areas such as confined spaces, work at height, isolation of energy services, live equipment and mechanical building services, partial demolition of structures and similar access limitations.

All properties will have concealed materials in its current state that cannot be accessed or revealed prior to demolition or refurbishment of the structure(s). Ongoing assessment of building materials is recommended and required during any such structural work and should be carried out by hazardous materials awareness trained personnel. Where any suspected material is uncovered an experienced hazardous materials consultant should be contacted to sample, risk assess and document the finding(s).

3 HAZARDOUS MATERIALS RISK ASSESMENT

3.1 Asbestos

Asbestos is considered a health risk whenever a potential asbestos fibre release is likely to occur. The health risk posed by asbestos containing materials and products in premises are due to a number of risk factors including:

- Condition of the material;
- Friability of the material;
- Airborne potential of the material;
- Accessibility of the material; and
- Location of the material.

A risk level for asbestos products or materials can be determined by multiplying the hazard level for the given asbestos type* by the 5 variants (above) which have also been assigned hazard levels (**Table 1**). The risk assessment methodology used in our assessment is based on the Australian Standard AS4360-1999, “Risk Management”.

A qualitative Asbestos materials risk assessment is undertaken each time an asbestos survey or re-survey of the site/property or structures is conducted and detailed in an Asbestos Report Register (ARR). The risk assessments are performed by competent persons only. Each asbestos situation is allocated either a ‘High’, ‘Moderate’, ‘Low’ or ‘Nil’ risk rating (**Table 2**). These ratings are defined as follows:

- ***High Risk*****:** There is an immediate exposure risk to anyone entering the area due to friable material which has already been disturbed or there is a short term exposure risk to anyone entering the area (usually a friable or poorly bonded material in an average or poor condition). Immediate action is required to restrict access and stop the spread of fibres or dust as well as plan for decontamination and remedial works.
- ***Moderate risk*****:** Due to the material status and/or activity in the area. Usually applies to bonded materials in a state of minor deterioration and in moderate to high activity levels, or accessible friable materials in good condition.
- ***Low Risk*****:** Poses a negligible or low risk to occupants of the area due to the material being in sound condition unless seriously disturbed. Usually applies to bonded or sealed products in at least average condition, or materials with no or low accessibility.

The risk assessment of the asbestos containing material is to be reviewed when:

- The Asbestos Management Plan is reviewed;
- Further asbestos or ACM is identified at the workplace;
- Asbestos is removed from or disturbed, sealed, enclosed or undergoes any other change in condition;
- There is evidence that the risk assessment is no longer valid;
- There is evidence that control methods are not effective; or
- A significant change is proposed for the workplace or for work practices or procedures relevant to the risk assessment.

Alternatively an asbestos risk assessment review is to be conducted every 5 years if not effected by one or more of the aforementioned variables. This is to be performed by a competent person.

Table 1: Asbestos risk assessment factors.

Asbestos Type* –*Hazard Level 0 - 2*		**Condition – *Hazard Level 1 to 3***	
0	No Asbestos Detected (NAD)	1	No sign of damage/deterioration, non-friable
1	Non-friable	2	Mild damage/deterioration, friable by force
2	Friable	3	Severe damage/deterioration, very friable
Accessibility – *Hazard Level 1 to 3*			
1	Fully concealed behind a false wall or ceiling, sealed/painted. Inaccessible due to height.		
2	Partial encapsulation, low activity area, low exposure to weathering and/or physical impact.		
3	No encapsulation, high activity area; exposed to weathering, people and maintenance.		
Airborne Potential – *Hazard Level 1 to 3*		**Exposure potential – *Hazard Level 1 to 3***	
1	Material not present in common air space.	1	Accessed only by maintenance personnel.
2	Material exposed to natural ventilation	2	Accessible to small numbers of personnel.
3	Material exposed to forced ventilation (A/C, fans)	3	Readily accessible to the majority of persons

By multiplying the hazard level from each risk factor the total can then be used to determine the recommended Health Risk/Action Priority Levels as presented in Table 2.

Table 2: Asbestos risk score, status and action priority categories.

Risk Level	Risk Status	Action Priority
50+	High (H)	Immediate action should be taken (Materials that pose an immediate or elevated health risk to employees and/or general public – assessed as in poor condition / very friable).
20 - 49	Moderate (M)	Removal or encapsulation and regular monitoring of the material is recommended (likely potential for further deterioration, instability and an increased risk of exposure).
1 - 19	Low (L)	Label, maintain and review (Products or materials that pose little health risk to employees and/or general public – assessed as stable, non-friable, low access)
0	Nil (N)	No action necessary

Note: Where any planned maintenance, refurbishment or demolition works will disturb ACM, licensed removal is recommended**.**

3.2 Synthetic Mineral Fibres

The risk assessment factors for SMF are similar to those of asbestos including:

- Evidence of physical damage;
- Accessibility to material;
- Likelihood of disturbance;
- Accessibility to exposed areas; and
- Environmental and occupational conditions.

High Risk: Friable synthetic mineral fibre exposed and readily accessible.

Moderate Risk: Friable synthetic mineral fibre or damaged bonded material which due to its present condition and/or location is likely to be further damaged resulting in fibre release.

Low Risk: Non-friable or seated stable friable material that is unlikely to present a risk to health unless damaged, tooled, cut, sanded or machined.

3.3 Lead

Lead when inhaled or ingested is toxic to humans. The lead containing paint risk assessment factors are assessed based on these two exposure routes on human receptors (infants, children, adults or contractors). These factors include:

- Likelihood of inhalation or ingestion;
- Likelihood of disturbance;
- Condition of the paint system; and
- Environmental and occupational conditions.

High Risk: Damaged or deteriorated paint membrane, which due to its present condition and location, presents a significant health risk.

Moderate Risk: Paint membrane showing signs of deterioration and weathering which if left will continue to deteriorate and require abatement that is more extensive.

Low Risk: Stable paint membrane that is in good condition and/or covered by a lead-free paint membrane, which is also in a good condition.

Lead paint is defined by the Australian Standard (AS 4361.2 – 1998 *Guide to lead paint management Part 2: Residential and Commercial buildings*) as a paint or component coat of a paint system containing lead or lead compounds, in which the lead content (calculated as lead metal) is in excess of 1.0% by weight of the dry film as determined by laboratory testing.

3.3.1 Lead-containing dusts

Settled dust containing lead in ceilings spaces, voids and cavities is in fine particles and has a potential for greater bioavailability causing serious long-term health problems on the brain, kidneys and reproductive organs. Human exposure is through inhalation or ingestion. Routes of exposure and risk assessment factors include:

- Areas of exposed soil adjacent to the building;
- Type of materials and age of the building;
- Refurbishment works conducted on the building;
- Distance from roads, commercial garages and mining/smelting operations;
- Dust fall rates and carpet wear; and
- Nature of paint work.

In the absence of a legislative standard, SWE (in consultation with the Department of Health and WorkCover) has adopted a threshold of 300 mg/kg which is considered appropriate for residential roof / ceiling cavities).

The below lead dust guidelines are extracted from Australian Standards AS 4361.2-1998, Section 5.6.4.2 (*Surface Dust Lead Loadings*) after lead paint management activities. The permissible amount of leaded dust remaining on each of the following surfaces following lead hazard work is:

- 1 mg/m^2 on floors (carpeted or uncarpeted)
- 5 mg/m^2 on interior window sills (or stools).
- 8 mg/m^2 on window troughs (the area where the sash sits when closed).
- 8 mg/m^2 on exterior concrete.

3.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are a set of persistent organic chemicals that are known or suspected to cause a wide range of health effects. There is clear evidence that PCBs cause cancer in animals, and they are considered probable human carcinogens [U.S. Environmental Protection Agency (EPA) 1996]. Human and animal data provide evidence that PCBs have significant toxic effects, including effects on the immune system, the reproductive system, the nervous system, and the endocrine system.

High Risk: PCB oil leaking from the component item under consideration.

Low Risk: Component item is in good condition. Unlikely to present a risk to health unless capacitor is damaged or deteriorates.

3.5 Ozone Depleting Substances (ODS)

The risk assessment factors for Ozone Depleting Substances (ODS) are similar to those of asbestos including:

- Evidence of physical damage;
- Accessibility to material;
- Likelihood of disturbance;
- Leakage;
- Accessibility to exposed areas; and
- Environmental and occupational conditions.

4 STATEMENT OF LIMITATIONS

This report and the associated services performed by SWE are in accordance with the scope of services set out in the contract between SWE and the Client. The scope of services was defined by the requests of the Client, by the time and budgetary constraints imposed by the Client, and by the availability of access to the Subject Site.

SWE derived the data in this report primarily from research, visual inspections, examination of available records, interviews with individuals with information about the site, and if requested, limited sample collection and analysis made on the dates indicated. In preparing this report, SWE has relied upon, and presumed accurate, certain information provided by government authorities, the Client and others identified herein. Except as otherwise stated in the report, SWE has not attempted to verify the accuracy or completeness of any such information.

Limitations also apply to analytical methods used in the identification of substances [refer to examples a), b) and c) below]. These limitations may be due to non-homogenous material being sampled (i.e. the sample to be analysed may not be representative), low concentrations, the presence of 'masking' agents and the restrictions of the approved analytical technique. As such, non-statistically significant sampling results can only be interpreted as 'indicative' and not used for quantitative assessments.

a). 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.

b). 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.

c). 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.

No warranty, undertaking, or guarantee, whether expressed or implied, is made with respect to the data reported or to the findings, observation, conclusions and recommendations expressed in this report. Furthermore, such data, findings, observati ons, conclusions and recommendations are based solely upon the existence at the time of the investigation. The passage of time, manifestation of latent conditions or impacts of future events (e.g. changes in legislation, scientific knowledge, land uses, etc) may require further investigation at the site with subsequent data analysis and re-evaluation of the findings, observation, conclusions and recommendations expressed in this report.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between SWE and the Client. SWE accepts no liability or responsibility whatsoever and expressly disclaims any responsibility for or in respect of any use of or reliance upon this report by any third party or parties.

APPENDIX A

HAZARDOUS MATERIALS REGISTER

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
Asbestos Containing Materials													
Visual Observation	Presumed to contain asbestos	1	Fibre Cement Sheets	Building 40, Block A, Ground Floor, Room A.2, packers to service cupboard	1	2	2	1	1	4	L	$1m^2$	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	2	Asbestos lagging	Building 40, Block A, First Floor, eastern stairwell, pipe lagging to riser below fire hose cupboard	2	3	3	2	3	108	H	Unknown	Restrict access to fire hydrant. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.
Visual Observation	Presumed to contain asbestos	3	Fibre Cement Sheets	Building 40, Block A, First Floor eaves	1	1	1	2	1	2	L	200m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	4	Asbestos lagging	Building 40, Block B, sub-floor plant room, pipe lagging to HW pipes	2	3	3	2	2	72	H	72	Inadequate lagging encapsulation. Delineate and restrict access. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
Visual Observation	Presumed to contain asbestos	5	Asbestos Containing Electrical Mounting Board	Building 40, Block B, sub-floor plant room, electrical backing board	1	1	1	1	1	1	L	1m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	6	Fibre Cement Sheets	Building 40, Block B, First Floor Eaves	1	1	1	2	1	2	L	200m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
40/GFW/A05	CH	7	Vinyl floor tiles	Building 40, Block B, Ground Floor, store room outside Laundry, green vinyl floor tiles	1	1	2	1	2	4	L	$15m^2$	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	-	Fibre Cement Sheets	Building 40, Block C, First Floor eaves	1	1	1	2	1	2	L	200m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	8	Asbestos Containing Electrical Mounting Board	Building 40, Block D, sub-floor plant room, electrical backing board	1	1	1	2	1	2	L	1m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
Visual Observation	Presumed to contain asbestos	9	Asbestos lagging	Building 40, Block D, sub-floor plant room, pipe lagging to HW pipes	2	3	2	2	2	48	M	unknown	Inadequate lagging encapsulation. Delineate and restrict access. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.
Visual Observation	Presumed to contain asbestos	Refer 7	Asbestos lagging	Building 40, Block D, Ground Floor exterior, north west end, pipe lagging to pipes along service trench	2	3	2	2	2	48	M	unknown	Inadequate lagging encapsulation. Delineate and restrict access. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.
Visual Observation	Presumed to contain asbestos	-	Fibre Cement Sheets	Building 40, Block D, Second Floor eaves	1	1	1	2	1	2	L	200m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	10	Fibre Cement Sheets	Building 40, Block E, Ground Floor, DB cupboard, fibro panel below DB panel	1	2	1	1	1	2	L	1m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
40/FF/A10	CH, AM	-	Fibre Cement Sheets	Building 40, Block E, First Floor, DB.17 cupboard, fibro panel below DB panel	1	1	1	2	1	2	L	1m	Fibro damaged, seal exposed edges with paint or glue. Review condition of asbestos material by February 2020
Visual Observation	Presumed to contain asbestos	-	Fibre Cement Sheets	Building 40, Block E, Second Floor eaves	1	1	1	2	1	2	L	200m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	11	Asbestos lagging	Building 40, Amenities Block, sub-floor plant room, pipe lagging to brick enclosure	2	3	2	2	2	48	M	unknown	Some damage to lagging encapsulation. Delineate and restrict access ASAP. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.
Visual Observation	Presumed to contain asbestos	12	Asbestos Containing Electrical Mounting Board	Building 40, Amenities Block, sub-floor plant room, electrical backing board x 2	1	1	1	1	1	1	L	1m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
40/GFAB/A14	CH	13	Fibre Cement Sheets	Building 40, Amenities Block, Ground Floor, kitchen, scullery/wash room, fibro ceiling panels	1	1	2	2	2	8	L	10m^2	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
Visual Observation	Presumed to contain asbestos	14	Fibre Cement Sheets	Building 40, Amenities Block, Ground Floor, north entry to kitchen, fibro eave soffit	2	1	2	2	3	24	M	$10m^2$	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	15	asbestos pipe lagging	Building 40, Central Wing, First Floor, fire hydrant riser cupboard, exposed pipe lagging	2	3	3	2	3	108	H	unknown	Restrict access to fire hydrant. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.
Visual Observation	Presumed to contain asbestos	16	Asbestos lagging	Building 40, Central Wing, First Floor, void behind ceiling panels, pipe lagging throughout	2	3	2	2	2	48	M	unknown	Restrict access to ceiling space. If access is gained, wear asbestos specific PPE. Repair asbestos lagging encapsulation or remove lagging ASAP.
Visual Observation	Presumed to contain asbestos	17	Fibre Cement Sheets	Building 40, Central Wing, First Floor, shower block opposite Room 16, fibro ceiling sheet to shower recess	1	1	2	2	3	12	L	$5m^2$	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Visual Observation	Presumed to contain asbestos	18	Asbestos lagging	Building 40, Central Block, Workshop, pipe lagging to stormwater pipes	2	3	3	2	2	72	H	20	Some damage to lagging encapsulation. Risk of further damage through workshop activities. Improve asbestos lagging encapsulation or remove lagging ASAP.

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
Visual Observation	Presumed to contain asbestos	19	Asbestos lagging	Building 40, Central Block, Driveway, pipe lagging to stormwater pipes	2	2	2	2	1	16	L	30m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
40/GFC/A13	CH	20	asbestos gasket material	Building 40, Central Block, plant room C1, gasket to compressor unit	1	1	1	2	1	2	L	<1m	Label and maintain in current condition. Review condition of asbestos material by February 2020. Remove prior to refurbishment or demolition.
Lead Paint Systems													
No Lead Paint Systems were identified during survey.													
PCBs Containing Material													
Visual Observation	Presumed to contain PCB	-	Metal capacitors	Building 40, Blocks A to E, plant areas, all original fluorescent light fittings							L	N/A	Remove capacitors prior to refurbishment or demolition and dispose of lawfully
ODS Containing Materials													
Visual Observation	R22	-	Refrigerant gas	Building 40, exterior, original "Daikin" air conditioning units outside Blocks A to E	-	-	-	-	-	-	L	Approximately 6 units	Remove prior to refurbishment or demolition.

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
SMF Containing Materials													
Visual Observation	SMF	-	SMF Insulation	Building 40, Blocks A – E, ceiling space, insulation to top of ceiling space.	-	-	-	-	-	-	L	Throughout	Acceptable Condition. Remove prior to refurbishment or demolition.
Visual Observation	SMF	-	SMF Insulation	Building 40, throughout, insulation to duct work throughout.	-	-	-	-	-	-	L	Throughout	Acceptable Condition. Remove prior to refurbishment or demolition
No Asbestos Detected													
40/GF/A01	NAD	-	Fibre Cement Sheet	Building 40, Block B, ground floor,infill panels above entry	-	-	-	-	-	-	-	-	-
40/GFF/A02	NAD	-	Ceiling Spray	Building 40, Block A, ground floor, ceiling spray to entry	-	-	-	-	-	-	-	-	-
40/GFC/A03	NAD	-	Fibre Cement Sheet	Building 40, Block C, Trunk Room R1, ceiling sheeting	-	-	-	-	-	-	-	-	-
40/GFW/A04	NAD	-	Fibre Cement Sheet	Building 40, Block C, ground floor, wall sheet to toilet block	-	-	-	-	-	-	-	-	-
40/GD/A06	NAD	-	Fibre Cement Sheet	Building 40, Block D, ground floor, toilet wall sheet	-	-	-	-	-	-	-	-	-
40/GD/A07	NAD	-	Floor Adhesive	Building 40, Block D, ground floor, black adhesive to vinyl floor tiles	-	-	-	-	-	-	-	-	-

Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m^2, m^3)	Actions/Comments
40/GD/A08	NAD	-	Vinyl Tile	Building 40, Block D, vinyl floor tiles under carpets	-	-	-	-	-	-	-	-	-
40/GF/A09	NAD	-	Vinyl Tile	Building 40, Block E, ground floor, linen cupboard green vinyl floor tiles	-	-	-	-	-	-	-	-	-
40/Ext/A11	NAD		Fibre Cement Sheet	Building 40, Amenities Block, Ground floor, exterior panels outsite mess hall	-	-	-	-	-	-	-	-	-
40/Ext/A12	NAD		Ceiling Spray	Building 40, Amenities Block, Ground floor, ceiling spray to exterior outside mess hall	-	-	-	-	-	-	-	-	-
No Lead Containing Materials													
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Explanation of Terms:
CH – chrysotile (white) asbestos detected
AM – amosite (brown) asbestos detected

No Access Areas

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

- Roof top (height and safety restrictions).