

Asbestos Containing Materials Survey - Part 5



Property Number (PMS): SG01

Property Name: Sandgar Pty Ltd

Property Address: Hanger No 1 7 Murphy Rd Darwin
International Airport

Number of Structures: 1

Report Creation Date: 06 Feb 2015

Asbestos Solutions NT

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Audit Summary

Introduction

Asbestos Solutions NT Pty Ltd were contracted by Sandgar Pty Ltd to conduct a Part 5 Asbestos Survey on the Hanger 1 located at 7 Murphy Road Darwin International Airport, Darwin NT.

Site Description

The site is an Aircraft Hanger and Offices.

Area Included

All areas of Hanger 1 Internal and External

Area Excluded

All underground Power, Water and Sewerage services.

Comments

No Asbestos was detected in the building.

Survey Findings

Please refer to Appendix A Asbestos register.

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Definitions

Act

An Act is a primary legislative instrument - it may give authority for the making of another legislative instrument. The role of an Act is to constitute the process of formulating general rules or conduct without reference to particular cases and they usually operate in the future. Acts state the general principles of a scheme.

Asbestos

Asbestos refers to the fibrous form of mineral silicates arising from serpentine and amphibole rock forming minerals. These silicates include:

Serpentine Group

- Chrysotile (white asbestos)
- Amphibole Group
- Amosite (brown asbestos)
- Crocidolite (blue asbestos)
- Actinolite, tremolite and anthophyllite.

Asbestos may also be considered as any mixture of the above groups.

Materials containing asbestos may include “fibro” products, spray-on fireproofing, soundproofing/thermal insulation, acoustic plaster, and insulation and friction materials such as brake linings, clutch pads, gaskets and seals.

Asbestos has been used as insulation for pipes, autoclaves, ovens, mattresses, heat blankets, rope, vinyl tiles, fire doors, building material (sheet), piping, laboratory bench tops, switchboards, clutch linings, batteries and many other uses.

Asbestos is typically found in buildings more than 25 years old, as cement sheeting, spray-on fireproofing, black electrical mounting boards, vinyl flooring, asbestos wire insulation and at times, within boilers and heating units.

Asbestos Cement Sheet (AC)

Asbestos cement sheet is a building material, which is a composite of asbestos fibres, plant fibres, cement and sand. This includes flat or corrugated compressed sheeting, pipes and roof shingles.

Asbestos Containing Materials (ACM's)

Asbestos containing materials are any material that contain asbestos.

Asbestos Related Activities

Activities which involve the identification, evaluation and control of asbestos situations, including removal.

Code of Practice

A Code of Practice provides practical guidance for prevention, assessment and control of the subject matter. It is designed to assist in the implementation of the provisions of associated regulations.

Friable

The term friable is used to describe asbestos containing material or synthetic mineral fibres that can be crumbled, pulverised or reduced to particles by hand pressure when dry. Friable asbestos is considered to represent a particular hazardous state. It typically includes spray-on insulation, fireproofing or soundproofing.

Presumption Criteria

Where samples have not been taken (i.e. restricted access) the suspect samples are simply presumed to contain asbestos. Or if materials historically contain asbestos and visual inspection confirms the likelihood that asbestos is present (i.e. gaskets) then again these areas are presumed to contain ACM. The presumption criteria can also be used where a facility contains multiple suspected areas which likely contain ACM (i.e. fire doors).

Once the presumption has been made the material must be treated as an ACM with work practices and disposal criteria as required for the presence of asbestos, until the material is removed or testing has confirmed that it does not contain asbestos.

Regulation

Regulations deal with matters of administrative or technical detail, particularly where this detail may need to be changed from time to time.

Introduction

Background

Asbestos Solutions NT has been engaged to:

- Undertake a Part 5 re-survey of asbestos containing materials (ACM's) located at the site.
- Prepare an asbestos register.

This survey is to assist the client and building management in identifying the location of ACM's at the site and to provide a basis for the ongoing management.

Scope of Works

Purpose

The purpose of the asbestos survey is to identify the locations and condition of ACM's within the building and to provide advice in relation to appropriate ongoing management of the identified materials. This survey forms part of the overall responsibility as owner/occupier of the property.

Nature of Survey

The surveys consisted of the following:

- An inspection of the property.
- Collection of samples (where required).
- Confirmation of existing ACM's and their condition
- The addition of any new suspected ACM's.
- Register update.

The survey was developed in accordance with the following codes of practice and guidelines:

- Code of Practice for the Management and Control of Asbestos in Workplaces. [NOHSC:2018 (2005)].

The asbestos survey did not include the following:

- An investigation or assessment of areas of the site that were not readily accessible or practicable to access on the day (including within switchboards, lift infrastructure, internal air conditioning and heating units). Practicable in this sense means that plant and equipment would have had to be dismantled, or unacceptable damage would have been incurred if the inspection had proceeded or in operation and therefore unsafe to investigate.
- Reviews of any licenses or approvals held in relation to the use, handling or presence of ACM's at the site, or past, current or proposed removal or treatment of ACM's at or from the site.

Limitations

Conditions of Engagement

Whilst this survey has been prepared in a manner consistent with the level of quality and skill generally exercised by members of Asbestos Solutions NT profession, it must be read and interpreted subject to the following limitations:

- The survey was prepared solely for the purpose described in Section 2.1. It should not be relied on, or used by, the client for any other purpose.

- The survey was prepared solely for the client and should not be relied on, or used by, any other party for any purpose whatsoever.
- Where information referred to in the survey was obtained from third parties, Asbestos Solutions NT has not independently verified the accuracy or comprehensiveness of the information supplied and accepts no responsibility or liability arising from any inaccuracies or omissions in the information supplied.
- Although care was taken during the site inspection to identify all asbestos containing materials at the site, asbestos may be present at the site in concealed areas or locations of the property not accessed at the time of inspection.
- The information contained in this survey is based on conditions that existed at the date of the survey. No responsibility for matters or events arising after that date is accepted. In particular, the survey cannot be relied on if alteration or demolition work is undertaken in the future or if site conditions change or are altered, after the date of the survey.
- The survey is not for the purposes of an Occupational Health and Safety (OH&S) Assessment. The survey is in no way to be considered or interpreted as a review of the legal obligations pertaining to the site or as an assessment of compliance of the site with legal standards or obligations or subsequent regulations.
- The information contained in this survey should only be presented in full and may not be used to support any other objectives other than those stated in this survey. In particular, the asbestos materials register, and other appendices attached to the survey should not be separated from the body of the survey for any purpose or use whatsoever.
- This survey should not be used for the purpose of tendering, preparing costing or budgets, programming of work, refurbishment of works or demolition work.

Accuracy

The information contained in this survey is considered to be accurate on the date of the survey in accordance with the current conditions of the site. These conditions may vary from time to time as the result of further activity that may influence the condition of the ACM's identified at the site. In addition, limited non destructive sampling was undertaken at the site. As a result the inspection cannot be regarded as absolute.

Completeness of Inspection

Locations where the assessment of asbestos may not have been practicable include, but are not limited to:

- Internal sections of air-conditioning systems and hot water/heating systems, wall partitions, fire doors and electrical light fittings.

- Concealed or inaccessible areas or voids within the building such as wall cavities, beneath floors, carpets and slabs, above fixed ceilings and confined spaces.
- Integral parts of boilers, pumps, machinery, plant and pipe work.
- Areas where the presence of asbestos containing materials was not considered to represent a significant exposure risk.
- ACM's concealed by other materials, preventing visual access or identification or installed in non-typical applications.

No asbestos survey can guarantee to identify all ACM's present in a building. Whilst this survey has been prepared in a manner consistent with the level of quality and skill generally exercised by members of Asbestos Solutions NT profession, there is no guarantee, expressed or implied, that all ACM's have been identified in this survey.

Based on the above information, further investigation and sampling will be required prior to demolition or refurbishment works.

Methodology

The inspection consisted of a visual check of suspected asbestos materials within the premises and sampling when required based on professional judgement.

Details of the sample collection are provided below and the results are provided in Appendix A.

The methodology is a risk-based approach, which seeks to identify ACM that are commonly found at properties more than 25 years old. The approach involves both visual and laboratory identification of ACM's which are readily accessible at the property, and may represent a health risk if disturbed.

Where samples are not able to be taken it is sometimes necessary to presume the material contains asbestos. Once such a presumption has been made, the material must be treated as an asbestos containing material until it is confirmed by analysis or removed.

Samples were not taken from the following materials suspected as containing asbestos:

- Switchboards located throughout the building.
- Fire Doors.
- Air Conditioning ducts.
- Vinyl tiles.
- Mastics, sealants, adhesives and paints.

These have not been sampled because in some cases these materials are considered low risk, samples are not possible (i.e. from fire doors as sampling effects the integrity of the door) or for economic reasons.

Firedoors

While all care has been exercised to ensure all fire doors have been checked and labelled it is possible that some fire doors have been missed or were not accessible during the audit. Asbestos free fire doors will be labelled "Asbestos Free" on the nameplate or will have a recently dated nameplate. Before any work is performed on any fire door Asbestos Solutions NT that the nameplate is checked in consultation with the register, if there is any doubt then the fire door should be treated as containing asbestos until verified otherwise.

Vinyl Tiles

While all care has been exercised to ensure all vinyl tiles have been checked and labelled it is possible that some vinyl tiles have been missed, were not accessible during the audit or previous analysis have concluded that the tile does not contain asbestos (when in fact due to the non-homogeneous nature of vinyl tiles it may contain asbestos, just not in the area sampled). If there is any doubt about whether a vinyl tile contains asbestos then the vinyl tile should be treated as containing asbestos until verified otherwise.

Air Conditioning Ducts

While all care has been exercised to ensure all HVAC systems have been checked for ACM millboard it is possible that some ACM components have been missed or were not accessible during the audit. If there is any doubt about whether a HVAC system contains ACM's then the system should be treated as containing asbestos until verified otherwise.

Sampling Procedures

Asbestos Containing Materials

All samples were collected using pinch pliers or other appropriate sampling equipment. While samples were being collected, all relevant safety procedures were adhered to in accordance with relevant OH&S procedures and Codes of Practice. Suspected materials are regarded as potentially containing asbestos and full precautions applied.

Samples were collected from suspected ACM's and particularly those of a friable nature. A discrete and non-destructive technique of sampling was used to minimise any obvious sign of damage and limit any damages to the integrity of the material.

Due to the operating nature of the premises, no samples were taken from within air plenums such as air conditioning fan rooms, operating furnaces, fire doors, heaters or other locations where non-destructive safe sampling cannot be conducted.

All tools were cleaned throughout, following each sample collection, to prevent any cross contamination, in some cases, adjoining areas were also wiped clean. All disposable materials, which were likely to have come in contact with any ACM's, were double sealed into plastic bags for subsequent disposal.

In all cases attention was paid to the collection of representative samples. When variations in colour, texture, etc. were noted, additional sampling was initiated.

Asbestos containing materials not considered to represent a significant exposure risk include, but are not limited to; paints, mastics, sealants, adhesives and similar materials. Such materials were typically not sampled.

Field Log-Sheets

The field inspector recorded each sample of suspected ACM's on a field log-sheet as it was collected. Such field log-sheets include information on the date, time, sampling location and sample number.

Sample Labelling

Each sample of suspected asbestos was placed in an individual re-sealable plastic bag, which was sealed in a second plastic bag before dispatch to the laboratory. Each bag was then labelled with a unique numbering system, which enabled laboratory staff to identify and track samples.

Sample Examination

Samples were analysed by NATA certified laboratories that use polarised light microscopy and X-ray diffraction to identify the presence of asbestos.

Risk Evaluation

Introduction

A qualitative risk evaluation was performed to identify the hazards posed to site occupants by the ACM's identified on the site. The evaluation consists of risk assessment on the identified ACM's and assigning a priority rating system for the management of such materials.

Methodology

Assessment of Risk

The risk evaluation is based on an assessment of a range of factors, such as the friability, location and condition of the identified materials.

In addition, the auditors have also considered the nature of the work in relation to the vicinity of the building occupants. In all circumstances the methods adopted have aimed to minimise the likelihood of fibres releasing into occupied space.

The above factors have been utilised in the process of determining appropriate recommendations for the timing of assessment activities and have assisted in the development of the management plan.

Priority Rating System

The priority rating systems in the following section were designed as a guide for the development of a management plan. The actual setting of priorities for implementation of control procedures will depend not only on the allocated rating, but also on factors such as changes to work practices or the physical environment that occur during refurbishment or demolition. In spite of this, the allocated rating does provide a reasonable guide to the appropriate priority setting with regard to the current condition of the materials.

Priority Ratings

Asbestos Containing Materials Ratings

There are four priority ratings in the system as outlined below. They are a guide only and the client should decide the most appropriate controls based on such factors as risk, detailed knowledge of workplaces and procedures, plans for upgrade or refurbishment.

Priority Rating for Control of Asbestos Containing Materials

Priority 1 – P1	Immediate Risk Level
<p>This level of risk is applicable to the presence of friable material, such as limpet asbestos insulation and asbestos ropes, especially if in a deteriorating state. It presents an immediate health risk in its current condition and location and immediate control measures are required. The area containing this material should be isolated, at the first instance, from personnel. Abatement is highly recommended at the earliest practicable time.</p>	

Priority 2 – P2	Potential Risk Level
<p>This level of risk is applicable to damaged or unstable material such as broken or deteriorated cement sheeting, which presents a potential health risk if disturbed. Control measures to stabilise the material should be initiated immediately to prevent the chance of the contamination spreading to other areas. Formal abatement should be considered.</p>	

Priority 3 – P3	Low Risk Level
<p>This level of risk is applicable to damage non-friable or stable material that may require some minor maintenance. Maintenance work should be carried out to stabilise and repair the damaged area. Control must be implemented to protect these materials from further damage</p>	

Priority 4 – P4	Negligible Risk Level
<p>This level of risk is applicable to non-friable or stable materials, such as painted cement sheeting, vinyl floor tiles, etc. It is unlikely for these materials to present a health risk unless damaged, cut, sanded, abraded or machined. These materials should be maintained in good condition and reassessment of the priority rating will be required if any maintenance or building works impact on their condition.</p>	

References

- How to Safely Remove Asbestos: Code of Practice. Safe Work Australia. December 2011.
- How to Manage and Control Asbestos in the Workplace: Code of Practice. Safe Work Australia. December 2011.
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres. 2nd Edition. WorkSafe Australia, [NOHSC: 3003 (2005)]

Appendix A

Asbestos Register


Building ID: B01


LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S01 Sample ID: Ground A Office Ceiling	Application: Lining Description: Gyprock Accessibility: Accessible Amount: Recommendations: Due Date:	Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration Potential: Activities that May Disturb Material: Remedial Action: Not Applicable Audit Findings: Ceilings in the office and bathrooms are Gyprock . Assessed: 2015-01-16 Risk Ass. None	
LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S02 Sample ID: Ground B Office Walls	Application: Linings Description: Gyprock & Masonry Accessibility: Accessible Amount: Recommendations: Due Date:	Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration Potential: Activities that May Disturb Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None	
LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S03 Sample ID: Ground C Office Floors	Application: Coverings Description: Carpet & Ceramic Tiles Accessibility: Accessible Amount: Recommendations: Due Date:	Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration Potential: Activities that May Disturb Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None	
LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S04 Sample ID: S001 Ground D Laundry Wall	Application: Lining Description: Cement Sheet Accessibility: Accessible Amount: 9 m ² Recommendations: Due Date:	Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration Potential: Activities that May Disturb Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None	

Building ID: B01

LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S05 Sample ID: Ground G Hanger Bathrooms Ceilings 	Application: Lining Description: Gyprock Tiles Accessibility: Accessible Amount: Recommendations: Due Date:		Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration: Not Applicable Potential: Activities that May Disturb: Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None
LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S06 Sample ID: Ground Hanger Bathrooms Walls 	Application: Lining Description: Masonary Accessibility: Amount: Recommendations: Due Date:		Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration: Not Applicable Potential: Activities that May Disturb: Material: Remedial Action: Audit Findings: Assessed: 2015-01-16 Risk Ass. None
LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S07 Sample ID: Ground I Hanger Bathrooms Floors 	Application: Coverings Description: Ceramic Tiles Accessibility: Amount: Recommendations: Due Date:		Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration: Not Applicable Potential: Activities that May Disturb: Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None
LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S08 Sample ID: Ground J Staff Amenities Walls,Ceilings and Floors 	Application: Lining Description: Ceramic Tiles, Gyprock Accessibility: Amount: Recommendations: Due Date:		Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration: Not Applicable Potential: Activities that May Disturb: Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None

Building ID: B01

LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S09 Sample ID: Ground K Workshop Walls,Ceilings and Floors	Application: Lining Description: Metal, Concrete and Gyprock Accessibility: Accessible Amount: Recommendations: Due Date:	Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration Potential: Activities that May Disturb Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None	
			

LOCATION	DETAILS	RISK	Asbestos
Deposit ID: S10 Sample ID: 1st Throughout Walls,Ceilings and Floors	Application: Lining Description: Gyprock and Carpet Accessibility: Accessible Amount: Recommendations: Due Date:	Status: Not Present Substance Type: Condition: Not Applicable Damage or Deterioration Potential: Activities that May Disturb Material: Remedial Action: Not Applicable Audit Findings: Assessed: 2015-01-16 Risk Ass. None	
			

Appendix B

Lab Report

ASBESTOS IDENTIFICATION REPORT No. 83873

CLIENT: Asbestos Solutions NT
ATTENTION: Ken Jones
PROPERTY ADDRESS: 7 Murphey Rd, Darwin Airport
SAMPLED BY: As-received

ORDER NO: 83873
REPORT DATE: 20/1/2015

PROCEDURE: In house method: Asbestos Identification by Polarised Light Microscopy including Dispersion Staining

RESULTS

No.	Client ID	Description	Asbestos	Other fibres
1	Laundry wall sheeting	Off white cement sheet painted grey-white	No	Cellulose

Cellulose is a plant based fibre that is considered non hazardous

TESTING OFFICER: **Alister Pearce**



This Test Report is not covered by the scope of AEC's NATA Accreditation

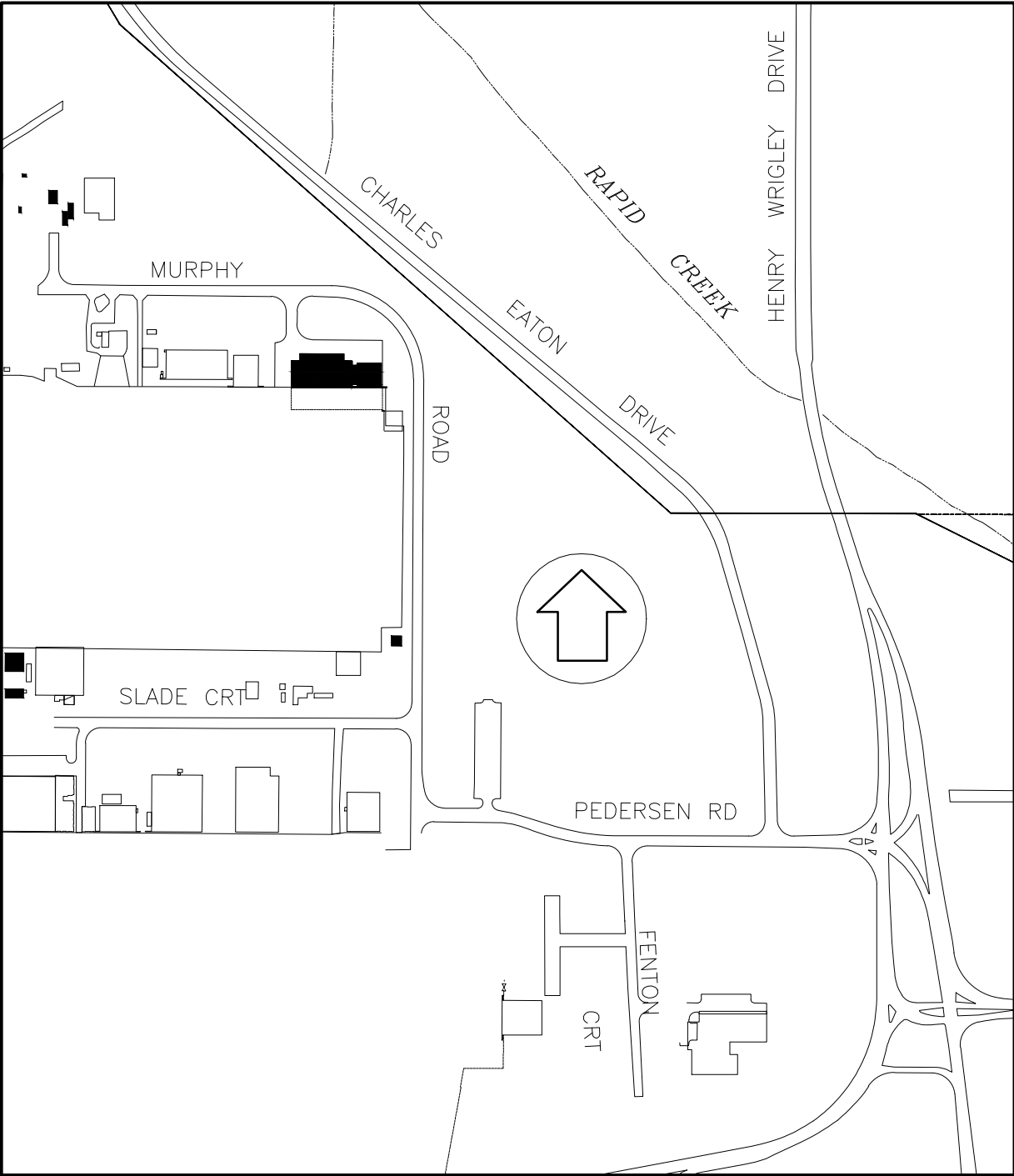
Please note that the results contained in this report relate only to the sample(s) submitted for testing. Sample Dimensions and Descriptions are approximate only. Chrysotile is commonly known as white asbestos, Amosite is commonly known as brown asbestos and Crocidolite as blue asbestos. SMF (Synthetic Mineral Fibre) is commonly known as glass fibre and OF (Organic Fibre) includes natural fibres and synthetic organic fibre. A blank in the SMF or OF column implies not detected. ^, Confirmation by an independent analytical technique is advised due to the nature of the sample.

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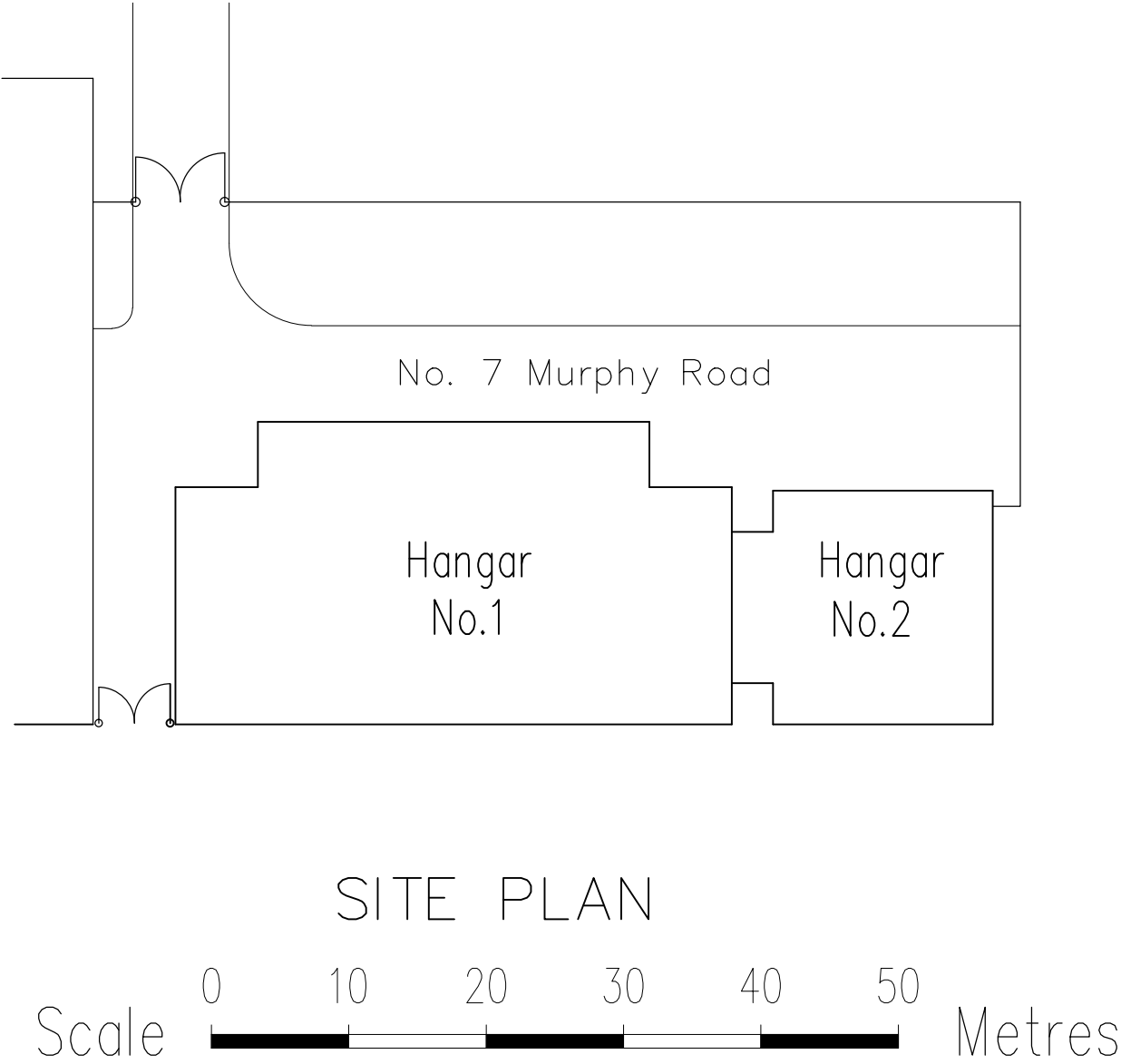
83873 Asbestos Solutions - 7 Murphy Road Darwin Airport

Appendix C

Site Plan



LOCALITY PLAN
Not to Scale



SITE PLAN

Scale 0 10 20 30 40 50 Metres

A	ORIGINAL ISSUE	05/01/2015	
No.	REVISION	DATE	INIT.

SITE & LOCALITY
No. 7 Murphy Road

DRAWING NO.	
01	
SHEET	REV.
1 of 1	A