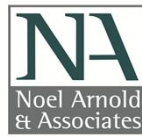




THE UNIVERSITY OF
SYDNEY



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Asbestos & Lead Paint Risk Assessment Report



Building Ref: H01

Darlington Campus

Sydney University Regiment

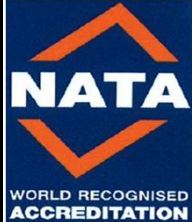

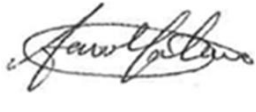
27/06/2012

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Limitations

Please note that there are limitations associated with this report due to a range of factors, including but not limited to the scope of works, survey methodology and inaccessible area. To ensure its contextual integrity, the report must be read in its entirety and should not be copied, distributed or referred to in part only.


Refer to the Full Statement of Limitations detailed in the report for further information.

Report prepared by:	Report reviewed by:	 <p>NATA WORLD RECOGNISED ACCREDITATION</p>	<p>This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17020 as a Type A Inspection Body. Accreditation No. 5450. Corporate Site: 18349.</p> <p>This document shall not be reproduced except in full.</p>
			
Leigh Rampley	Aaron Holmes		
Hazardous Materials	Approved Signatory		


Version 3 May 2012

How to use this Report

The table below outlines the layout of the Hazardous Materials Register and the information presented.



Asbestos & Lead Paint Register



Campus:	Camperdown Campus	No. Levels	8	Survey Date:	7/03/2011
Building Name:	Carslaw Building	Building Age:	1962	Inspected By:	Emma Harland
Building Number	F07	Construction Type:	Brick & Metal	Building Size (m2):	19052
Level Name:	Ground Floor			Roof Type:	Metal

Building ID:	Level	Room	Specific Location	Feature – Material – Description	Hazard Type	Sample	Sample Status	Photo No	Extent	Condition	Friability	Dist. Potential	Risk Rating	Current Label	Control Priority	Re-Inspect Date	Control Recommendation	Record of Works Undertaken
F07	Ground Floor	Room 123	South	Walls - Fibre cement sheeting	Asbestos	89322-F07-1	Positive	89322-F07-2345	20m2	Good	Non-Friable	Low	Low	Not Labelled	P4	Mar-12	Maintain in current condition. Remove under controlled conditions prior to refurbishment/demolition works.	
																	Yellow indicates Low Priority	
																	Orange indicates Medium Priority	
																	Red indicates High Priority	
																	* Shaded column indicates a positive item defined as lead-containing	

Asbestos & Lead Paint Register

Campus:		Darlington Campus										Survey Date:		27/06/2012					
Building Name:		Sydney University Regiment						No. Levels		3				Inspected By:		Andrew Brabek and Leigh Rampley			
Building Number		H01						Building Age:		1964				Building Size (m2):		750			
Level Name:		First Floor						Construction Type:		Brick				Roof Type:		Metal			
Building ID:	Level	Room Number	Specific Location	Feature – Material – Description	Hazard Type	Sample	Sample Status	Photo No	Extent	Condition	Friability	Dist. Potential	Risk Rating	Current Label	Control Priority	Re-Inspect Date	Control Recommendation	Record of Works Undertaken	
H01	First Floor	All areas	Various Throughout	Door frame - Blue (Light) - Upper coloured paint system	Lead Paint	LeadCheck	Negative												
H01	First Floor	BLDG 2 - Room 59	Various Throughout	Door - Pink - Lower coloured paint system - (and White - Upper coloured paint system)	Lead Paint	LeadCheck	Negative												
H01	First Floor	All areas	Various Throughout	Window frames - White - Upper coloured paint system	Lead Paint	LeadCheck	Negative												
H01	First Floor	BLDG 3 - Passage/Corridor	Throughout	Floor underlay – Beneath carpet - Vinyl floor tiles - (blue)	Asbestos	J105234-H01-1	Negative												
H01	First Floor	BLDG 3 - Room H6	East	Counter top - Sheet vinyl - hessian backed (light brown)	Asbestos	J105234-H01-2	Negative												
H01	First Floor	BLDG 3 - Room H6	East	Safe - Insulation	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8730	1 unit/s	Good	Friable	Low	Low	Not Labelled	P3	Jun-13	Label and maintain in good condition. Confirm status if practicable. Remove safe in it's entirety by a Class A (friable) licensed contractor under controlled conditions prior to demolition or refurbishment.		
H01	First Floor	BLDG 3 - All Rooms	Throughout	Floor underlay – Beneath carpet - Vinyl floor tiles - (blue)	Asbestos	Similar to J105234-H01-1	Presumed Negative												
H01	First Floor	All areas	Various Throughout	Switchboard – Internal components - Electrical backing board	Asbestos	No-Live	Presumed Positive	J105234-H01-8732	2 m2	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in-situ. Confirm status once isolated. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.		
H01	First Floor	BLDG 3 - Stairs	Various Throughout	Floor coverings - Vinyl floor tiles	Asbestos	J105234-H01-3	Negative												
H01	First Floor	BLDG 3 - All Rooms	Throughout	Ceiling - Sprayed insulation	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8729	100 m2	Poor	Friable	Low	Medium	Labelled	P2	Jun-13	Restricted access to ceiling space to authorised and trained personnel only. Confirm status when practicable. Remove by a Class A (friable) licensed contractor prior to demolition or refurbishment.		
H01	First Floor	BLDG 2 - BLDG 3 Passage / Theatrette	West	Fire door - Double - Fire door core - Vermiculite	Asbestos	J105234-H01-4	Negative												
H01	First Floor	BLDG 3 - Bar Store	Throughout	Floor coverings - Vinyl floor tiles - (green)	Asbestos	J105234-H01-5	Negative												
H01	First Floor	BLDG 2 - Room 59 Theatrette Store	Throughout	Floor coverings - Vinyl floor tiles - fibrous and hessian backed	Asbestos	J105234-H01-6	Negative												
H01	First Floor	BLDG 2 - Room 59 Theatrette Store	Throughout	Ceiling - Sprayed insulation	Asbestos	J105234-H01-7	Negative												
H01	First Floor	BLDG 2 - Room 59 - Boiler Room	Throughout	Ceiling - Fibre cement sheeting	Asbestos	J105234-H01-8	Negative												
H01	First Floor	BLDG 2 - Room 59 - Boiler Room	East	Debris – To floor - Fibre cement sheet - and sprayed insulation	Asbestos	J105234-H01-9	Positive	J105234-H01-8722	1 m2	Poor	Non-Friable	Low	Low	Not Labelled	P3	Jun-13	Remove by an appropriately licensed contractor under controlled conditions as soon as practicable.		
H01	First Floor	BLDG 2 - Room 59 - Boiler Room	Various Throughout	Pipe insulation - Wrap - Bituminous paper	Asbestos	J105234-H01-10	Negative												

Asbestos & Lead Paint Register

Campus:	Darlington Campus				Survey Date:		27/06/2012											
Building Name:	Sydney University Regiment				No. Levels	3		Inspected By:		Andrew Brabek and Leigh Rampley								
Building Number	H01				Building Age:	1964		Building Size (m2):		750								
Level Name:	First Floor				Construction Type:	Brick		Roof Type:		Metal								
Building ID:	Level	Room Number	Specific Location	Feature – Material – Description	Hazard Type	Sample	Sample Status	Photo No	Extent	Condition	Friability	Dist. Potential	Risk Rating	Current Label	Control Priority	Re-Inspect Date	Control Recommendation	Record of Works Undertaken
H01	First Floor	BLDG 2 - Porch / Corridor	Throughout	Floor coverings - Sheet vinyl - (light orange)	Asbestos	J105234-H01-11	Negative											
H01	First Floor	BLDG 2 - Porch / Corridor	North	Stair nosing - Bituminous material	Asbestos	J105234-H01-12	Positive	J105234-H01-8725	5 m2	Fair	Non-Friable	Low	Low	Labeled	P4	Jun-17	Label and maintain in current condition. Remove by a Licensed Contractor under controlled conditions prior to demolition or refurbishment.	
H01	First Floor	BLDG 2 - Ceiling Space	Throughout	Ceiling - Sprayed insulation	Asbestos	Similar to J105234-H01-7	Presumed Negative											
H01	First Floor	BLDG 2 - Room 66	Throughout	Floor coverings - Sheet vinyl - (orange)	Asbestos	Similar to J105234-H01-11	Presumed Negative											
H01	First Floor	BLDG 2 - Room 66	Throughout	Ceiling - Sprayed insulation	Asbestos	Similar to J105234-H01-7	Presumed Negative											
H01	First Floor	BLDG 2 - Room 66	East	Counter top - Sheet vinyl - hessian backed (light brown)	Asbestos	Similar to J105234-H01-2	Presumed Negative											
H01	First Floor	BLDG 1 & BLDG 2 Link Bridge - Exterior	Northeast	Infill panels - Fibre cement sheeting - Below windows	Asbestos		Presumed Positive	J105234-H01-8739	m2	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in good condition. Confirm status when required. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	First Floor	BLDG 2 - Cleaner Store	Throughout	Original ceiling - Plaster mix	Asbestos	J105234-H01-13	Negative											
H01	First Floor	BLDG 1 & BLDG 2 - Passage / Corridor	Throughout	Floor underlay - Beneath vinyl - Sheet vinyl - (orange)	Asbestos	Similar to J105234-H01-11	Presumed Negative											
H01	First Floor	BLDG 1 - Stairs	Throughout	Floor underlay - Beneath vinyl - Sheet vinyl - (orange)	Asbestos	Similar to J105234-H01-11	Presumed Negative											
H01	First Floor	BLDG 3 - Exterior	East	Window surround - Fibre cement sheeting	Asbestos	No-Height Restricted	Presumed Positive	J105234-H01-8749	6	Good	Non-Friable	Low	Low	Labeled	P4	Jun-17	Label and maintain in good condition. Confirm status when required. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	First Floor	BLDG 3 & Link Bridge - Exterior	Various Throughout	Infill panels - High level - Fibre cement sheeting	Asbestos	No-Height Restricted	Presumed Positive	J105234-H01-8750	50 m2	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in good condition. Confirm status when required. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	First Floor	BLDG 1 - Emergency Exit Stairwell	Throughout	Ceiling - Sprayed insulation	Asbestos	Similar to J105234-H01-18	Presumed Negative											
H01	First Floor	BLDG 1 - Emergency Exit Stairwell	Various	Fire door - Single - Fire door core	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8763	1 unit/s	Good	Friable	Low	Low	Not Labelled	P3	Jun-13	Label and maintain in good condition. Confirm status when practicable. Remove door in it's entirety by a Class A (friable) licensed contractor under controlled conditions prior to demolition or refurbishment.	

Asbestos & Lead Paint Register

Campus:		Darlington Campus								Survey Date:				27/06/2012				
Building Name:		Sydney University Regiment				No. Levels		3		Inspected By:				Leigh Rampley				
Building Number		H01				Building Age:		1964		Building Size (m2):				0				
Level Name:		Ground Floor				Construction Type:		Brick		Roof Type:				Metal				
Building ID:	Level	Room	Specific Location	Feature – Material – Description	Hazard Type	Sample	Sample Status	Photo No	Extent	Condition	Friability	Dist. Potential	Risk Rating	Current Label	Control Priority	Re-Inspect	Control Recommendation	Record of Works Undertaken
H01	Ground Floor	All areas	Various Throughout	Switchboard – Internal components - Electrical backing board	Asbestos	No-Live	Presumed Positive	J105234-H01-8745	2 m2	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in-situ. Confirm status once isolated. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 3 - All Rooms	Throughout	Ceiling above suspended ceiling - - Sprayed Insulation	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8749	100 m2	Poor	Friable	Low	Medium	Not Labelled	P2	Jun-13	Restricted access to ceiling space to authorised and trained personnel only. Confirm status when practicable. Remove by a Class A (friable) licensed contractor prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 3	Various	Fire door - Single - Fire door core	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8747	2 unit/s	Good	Friable	Low	Low	Not Labelled	P3	Jun-13	Label and maintain in good condition. Confirm status when practicable. Remove door in it's entirety by a Class A (friable) licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 2 - Exterior	Various Throughout	Window frames - Pebble-dash cladding - Construction joint mastic - Rubber	Asbestos		Presumed Negative											
H01	Ground Floor	Exterior	Various Throughout	Expansion joints – Ground - Bituminous material	Asbestos	J105234-H01-14	Negative											
H01	Ground Floor	BLDG 1 - Exterior	Various Throughout	Window frames - Pebble-dash cladding - Construction joint mastic	Asbestos	J105234-H01-15	Negative											
H01	Ground Floor	BLDG 2 - Mess Canteen	Throughout	Floor coverings - Sheet vinyl	Asbestos	J105234-H01-16	Negative											
H01	Ground Floor	BLDG 2 - Mess Band Store	Throughout	Ceiling - Sprayed insulation	Asbestos	Similar to J105234-H01-7	Presumed Negative											
H01	Ground Floor	BLDG 2 - All Rooms	Throughout	Ceiling above suspended ceiling - - Sprayed Insulation	Asbestos	Similar to J105234-H01-7	Presumed Negative											
H01	Ground Floor	BLDG 2 - Exterior	Various Throughout	Expansion joints – Walls - Construction joint mastic	Asbestos	J105234-H01-17	Positive	J105234-H01-8756	5 m	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in current condition. Remove by a Licensed Contractor under controlled conditions prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 1 & BLDG 3 - Motor Room	Various	Lift motor - Friction pads	Asbestos	No-Live	Presumed Positive	J105234-H01-8757	2 unit/s	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in-situ. Confirm status once isolated. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 1 & BLDG 3 - Motor Room	Various	Switchboard – Internal components - Electrical backing board	Asbestos	No-Live	Presumed Positive	J105234-H01-8758	2 m2	Good	Non-Friable	Low	Low	Not Labelled	P4	Jun-17	Label and maintain in-situ. Confirm status once isolated. Remove by an appropriately licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 3 - Cleaners Cupboard	Various	Fire door - Single - Fire door core - (Labelled Wormald 200_)	Asbestos		Presumed Negative											
H01	Ground Floor	BLDG 1 - Strong Room		Door - Insulation	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8759	1 unit/s	Good	Friable	Low	Low	Not Labelled	P3	Jun-13	Label and maintain in good condition. Confirm status if practicable. Remove safe door in it's entirety by a Class A (friable) licensed contractor under controlled conditions prior to demolition or refurbishment.	
H01	Ground Floor	BLDG 1 - Emergency Exit Stairwell	Throughout	Ceiling - Sprayed insulation	Asbestos	J105234-H01-18	Negative											

Asbestos & Lead Paint Register

Campus:			Darlington Campus										Survey Date:				27/06/2012							
Building Name:			Sydney University Regiment						No. Levels				3				Inspected By:				Leigh Rampley			
Building Number			H01						Building Age:				1964				Building Size (m2):				0			
Level Name:			Ground Floor						Construction Type:				Brick				Roof Type:				Metal			
Building ID:	Level	Room	Specific Location	Feature – Material – Description	Hazard Type	Sample	Sample Status	Photo No	Extent	Condition	Friability	Dist. Potential	Risk Rating	Current Label	Control Priority	Re-Inspect	Control Recommendation	Record of Works Undertaken						
H01	Ground Floor	BLDG 1 - Emergency Exit Stairwell	Various	Fire door - Single - Fire door core	Asbestos	No-Not Practical	Presumed Positive	J105234-H01-8761	1 unit/s	Good	Friable	Low	Low	Not Labelled	P3	Jun-13	Label and maintain in good condition. Confirm status when practicable. Remove door in it's entirety by a Class A (friable) licensed contractor under controlled conditions prior to demolition or refurbishment.							
H01	Ground Floor	BLDG 1 - All Rooms	Throughout	Ceiling above suspended ceiling - - Sprayed insulation	Asbestos	Similar to J105234-H01-18	Presumed Negative																	
H01	Ground Floor	BLDG 1 - Bar	Throughout	Floor coverings - Sheet vinyl	Asbestos	Similar to J105234-H01-19	Presumed Negative																	
H01	Ground Floor	BLDG 1 - All Rooms	Various Throughout	Floor Underlay - Sheet vinyl	Asbestos	J105234-H01-19	Negative																	

Asbestos & Lead Paint Register

Campus:		Darlington Campus										Survey Date:		27/06/2012				
Building Name:		Sydney University Regiment					No. Levels		3			Inspected By:		Leigh Rampley				
Building Number		H01					Building Age:		1964			Building Size (m2):		0				
Level Name:		Lower Groud Floor					Construction Type:		Brick			Roof Type:		Metal				
Building ID:	Level	Room	Specific Location	Feature – Material – Description	Hazard Type	Sample	Sample Status	Photo No	Extent	Condition	Friability	Dist. Potential	Risk Rating	Current Label	Control Priority	Re-Inspect Date	Control Recommendation	Record of Works Undertaken
H01	Lower Groud Floor	BLDG 1 - Subfloor	Various Throughout	Pipe insulation – Bandage wrap - Millboard/paper	Asbestos	Similar to J105234-H01-10	Presumed Negative											
H01	Lower Groud Floor	Exterior	Various Throughout	Door frame - Beige - Upper coloured paint system - (and Black - Lower coloured system)	Lead Paint	LeadCheck	Negative											
H01	Lower Groud Floor	Exterior	Various Throughout	Door - Beige - Upper coloured paint system - (and Pink - Lower coloured system)	Lead Paint	LeadCheck	Negative											



Photo No: J105234-H01-8730 Result: Presumed Positive

Location-Level: First Floor
Room-Location: BLDG 3 - Room H6 - East
Feature-Material: Safe - Insulation



Photo No: J105234-H01-8732 Result: Presumed Positive

Location-Level: First Floor
Room-Location: All areas - Various Throughout
Feature-Material: Switchboard – Internal components - Electrical backing board

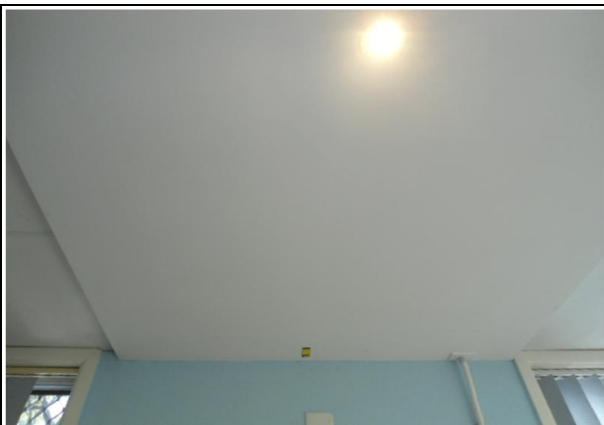


Photo No: J105234-H01-8729 Result: Presumed Positive

Location-Level: First Floor
Room-Location: BLDG 3 - All Rooms - Throughout
Feature-Material: Ceiling - Sprayed insulation



Photo No: J105234-H01-8722 Result: Positive

Location-Level: First Floor
Room-Location: BLDG 2 - Room 59 - Boiler Room - East
Feature-Material: Debris – To floor - Fibre cement sheet - and sprayed insulation



Photo No: J105234-H01-8725 Result: Positive

Location-Level: First Floor
Room-Location: BLDG 2 - Porch / Corridor - North
Feature-Material: Stair nosing - Bituminous material



Photo No: J105234-H01-8739 Result: Presumed Positive

Location-Level: First Floor
Room-Location: BLDG 1 & BLDG 2 Link Bridge - Exterior - Northeast
Feature-Material: Infill panels - Fibre cement sheeting - Below windows



Photo No: J105234-H01-8749 Result: Presumed Positive

Location-Level: First Floor
Room-Location: BLDG 3 - Exterior - East
Feature-Material: Window surround - Fibre cement sheeting



Photo No: J105234-H01-8750 Result: Presumed Positive

Location-Level: First Floor
Room-Location: BLDG 3 & Link Bridge - Exterior - Various
Feature-Material: Infill panels - High level - Fibre cement sheeting



Photo No: J105234-H01-8763 Result: Presumed Positive

Location-Level: First Floor
Room-Location: BLDG 1 - Emergency Exit Stairwell - Various
Feature-Material: Fire door - Single - Fire door core



Photo No: J105234-H01-8745 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: All areas - Various Throughout
Feature-Material: Switchboard – Internal components - Electrical backing board



Photo No: J105234-H01-8749 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: BLDG 3 - All Rooms - Throughout
Feature-Material: Ceiling above suspended ceiling - - Sprayed Insulation

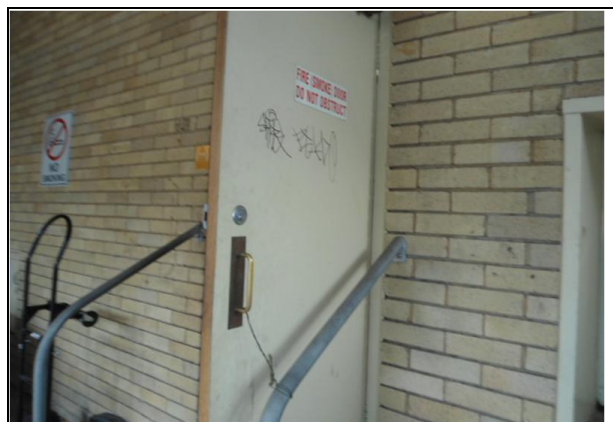


Photo No: J105234-H01-8747 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: BLDG 3 - Various
Feature-Material: Fire door - Single - Fire door core



Photo No: J105234-H01-8756 Result: Positive

Location-Level: Ground Floor
Room-Location: BLDG 2 - Exterior - Various Throughout
Feature-Material: Expansion joints – Walls - Construction joint mastic



Photo No: J105234-H01-8757 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: BLDG 1 & BLDG 3 - Motor Room - Various
Feature-Material: Lift motor - Friction pads



Photo No: J105234-H01-8758 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: BLDG 1 & BLDG 3 - Motor Room - Various
Feature-Material: Switchboard – Internal components - Electrical backing board



Photo No: J105234-H01-8759 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: BLDG 1 - Strong Room -
Feature-Material: Door - Insulation



Photo No: J105234-H01-8761 Result: Presumed Positive

Location-Level: Ground Floor
Room-Location: BLDG 1 - Emergency Exit Stairwell - Various
Feature-Material: Fire door - Single - Fire door core

Areas Not Accessed

Sydney University Regiment

Area / Item	Not Accessed	Comments
Height restricted areas of site and ceiling where safe lifting platforms were not provided	All	
Inaccessible ceiling spaces	All	
Inaccessible culverts and floor trenches or tunnels	All	
Wall cavities	All	
Building façade fixing brackets	All	
Under carpeted floor coverings	Some	
Within internal walls partitioning	All	
Behind ceramic wall tiles throughout	All	
Inside mechanical equipment	All	
Gaskets, mastics & sealants to pipework, ductwork, mechanical equipment & construction/expansion joints	Some	
Waterproof membranes	All	
Fire door cores	Some	See material register
Lift shaft and lift cabin fittings	All	Dumb waiters 2no.
Within air conditioning re-heat boxes	All	
Within electrical switchboard cupboard or backing	Some	
Roof	All	
Roof spaces	Some	Access into accesible ceiling hatches only.
Bulkheads	All	
Above suspended ceiling tiles	Some	
BLDG 2 - Lower Ground Floor	All	Acces not granted (weapon store) no escort obtained for entry

It is noted that Hazardous Materials may be contained within or behind those areas identified in the above table. Caution should be exercised when accessing these areas, particularly in relation to potential disturbance of the building fabric or concealed spaces.

Scope of Works

The scope of works for this project were as follows:

- Undertake a NATA-Accredited survey of the site in accordance with the requirements of ISO 17020
- Inspect representative and accessible areas of the site to identify asbestos & lead paint materials
- Identify the likelihood of asbestos in inaccessible areas
- Identify the types of asbestos-containing materials and lead-based paints and their condition
- Assess the risks posed by the materials
- Compile an up-dated asbestos materials register for the site
- Collect samples of suspected asbestos and lead paint containing materials for analysis in a NATA-Accredited laboratory
- Take photographs of suspected asbestos-containing and lead paint materials
- Recommend control measures and actions necessary to manage any asbestos and lead paint related risks
- Make comments for ongoing management of the asbestos and lead paint materials if they are to remain in-situ

Methodology

Asbestos

This component of the assessment was carried out in accordance with the guidelines documented in the *Code of Practice: How to Manage and Control of Asbestos in the Workplace (WorkCover NSW, 2011)*. Samples of suspected asbestos-containing materials were collected during the survey and were analysed in Noel Arnold & Associates' NATA-accredited laboratory for the presence of asbestos by Polarised Light Microscopy. Refer to **Appendix A** for information.

Lead Paint

Representative painted surfaces were tested for the presence of lead using the LeadCheck paint swab method in several locations. This method can detect lead in paint at concentrations of 0.5% and above, and may indicate lead in some paint films as low as 0.2%. The sampling program was representative of the various types of paints found within the site, concentrating on areas where lead based paints may have been used (eg. Exterior gloss paints, window and door architraves, skirting boards etc). The objective of lead paint identification in this survey is to highlight the presence of lead-based paints within the building, not to specifically identify every source of lead-based paint. Paint chips that were indicated as "positive" via LeadCheck swabs were subsequently collected and analysed in an external NATA-Accredited laboratory for % weight/volume of lead. Refer to **Appendix A** for information.

All Building, Level and Room ID numbers are based on the floor plans used during the audit as provided by USYD CIS.

To assess the health risk posed by the presence of asbestos-containing material, all relevant factors must be considered. These factors include:

- Evidence of physical damage;
- Evidence of water damage;
- Proximity of air plenums and direct air stream;
- Friability of asbestos material;
- Requirement for access for building operations;
- Requirement for access for maintenance operations;
- Likelihood of disturbance of the asbestos material;
- Accessibility;
- Exposed surface areas; and
- Environmental conditions

These aspects are in turn judged upon: (i) potential for fibre generation, and, (ii) the potential for exposure. Where these factors have indicated that there is a possibility of exposure to airborne fibres, appropriate recommendations for repair, maintenance or abatement of the asbestos-containing materials are made.

Condition

The condition of the asbestos products identified during the survey is usually reported as either being good or poor.

Good :- refers to asbestos materials, which have not been damaged or have not deteriorated.

Fair :- refers to the asbestos material having suffered minor cracking or de-surfacing.

Poor :- describes asbestos materials which have been damaged or their condition has deteriorated over time.

Friability

The friability of asbestos products describes the ease of which the material can be crumbled, and hence to release fibres.

Friable asbestos :- (e.g. limpet beam insulation, pipe lagging) can be easily crumbled and is more hazardous than non-friable asbestos products.

Non-Friable asbestos :- commonly known as bonded asbestos, is typically comprised of asbestos fibres tightly bound in a stable non-asbestos matrix. Examples of non-friable asbestos products include asbestos cement materials (sheeting, pipes etc), asbestos containing vinyl floor tiles and electrical backing boards.

Accessibility/Disturbance Potential

Asbestos products can be classified as having low, medium or high accessibility/disturbance potential.

Low accessibility describes asbestos products that cannot be easily disturbed, such as materials in building voids, set ceilings, etc.

Medium accessibility describes asbestos products that are visible but normal access is impeded, such as materials behind cladding material or are present in a ceiling space or are height restricted.

High accessibility asbestos products can be easily accessed or damaged due to their close proximity to personnel, e.g. asbestos cement walls or down pipes.

Risk Status

The risk factors described above are used to rank the health risk posed by the presence of asbestos-containing materials.

A **low risk ranking** describes asbestos materials that pose a low health risk to personnel, employees and the general public providing they stay in a stable condition, for example asbestos materials that are in good condition and have low accessibility.

A **medium risk ranking** applies to materials that pose an increased risk to people in the area.

Asbestos materials that possess a **high-risk ranking** pose a high health risk to personnel or the public in the area of the material. Materials with a high-risk ranking will also possess a Priority 1 recommendation to manage the asbestos and reduce the risk.

Asbestos Priority Rating System for Control Recommendations

The following priority rating system is adopted to assist in the programming and budgeting of the control of asbestos risk identified at the site.

Priority 1 (P1): Organise Remedial Works Immediately

An area has asbestos containing materials, which are either damaged or are being exposed to continual disturbance. Due to these conditions, there is an increased potential for exposure and/or transfer of the material to other parts with continued unrestricted use of this area. Representative asbestos fibre monitoring should be conducted in the building area during normal building operation where recommended. Prompt abatement of the asbestos hazard is recommended. As an interim, restrict access.

Priority 2 (P2): Organise Remedial Works Within 3 months

An area has asbestos containing materials with a potential for disturbance due to the following conditions:

- Material has been disturbed or damaged and its current condition, while not posing an immediate hazard, is unstable.
- The material is accessible and can when disturbed, present a short-term exposure risk.
- Demolition, renovation, refurbishment, maintenance, modification or new installations, involving air-handling system, ceilings, lighting, fire safety systems or floor layout.

Appropriate abatement measures should be taken as soon as practicable. A negligible health risk exists if materials remain undisturbed under the control of an asbestos management plan.

Priority 3 (P3): No Remedial Works Required

An area has asbestos-containing materials, where:

- The condition of the friable asbestos material is now stable and has low potential of being disturbed or
- The material is currently in a non-friable condition, may have slight damage but do not present an exposure risk unless cut, drilled, sanded or otherwise abraded.

Negligible health risks are present if materials are left undisturbed under the control of an asbestos management plan. Defer any major action unless materials are to be disturbed as a result of maintenance, refurbishment or demolition operations.

Priority 4 (P4): No Remedial Works Required

The asbestos material is in a non-friable form and in good condition. It is most unlikely that the material can be disturbed under normal circumstances and can be safely subjected to normal traffic. Even if it were subjected to minor disturbance the material poses a negligible health risk. These materials should be left and their condition monitored during subsequent reviews. As with any asbestos materials, these materials must be removed prior to renovations that may impact on the materials.

Labelling Requirements

Materials confirmed or suspected to contain asbestos should be clearly labelled in accordance with the *Code of Practice: How to Safely Manage and Control Asbestos in the Workplace (WorkCover NSW, 2011)* and relevant state based regulations.

This report has been prepared in accordance with the agreement between the University of Sydney and Noel Arnold & Associates Pty Ltd.

Within the limitations of the agreed upon scope of services, this work has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by members of its profession and consulting practice. No other warranty, expressed or implied, is made.

This report is solely for the use of the University of Sydney and any reliance on this report by third parties shall be at such party's sole risk and may not contain sufficient information for purposes of other parties or for other uses. This report shall only be presented in full and may not be used to support any other objective than those set out in the report, except where written approval with comments are provided by Noel Arnold & Associates Pty Ltd.

This report relates only to the identification of asbestos-containing materials used in the construction of the building and does not include the identification of dangerous goods or hazardous substances in the form of chemicals used, stored or manufactured within the building or plant.

The following should also be noted:

While the survey has attempted to locate the asbestos-containing materials within the site it should be noted that the review was a visual inspection and a limited sampling program was conducted and/or the analysis results of the previous report were used. Representative samples of suspect asbestos materials were collected for analysis. Other asbestos materials of similar appearance are assumed to have a similar content.

Not all suspected asbestos materials were sampled. Only those asbestos materials that were physically accessible could be located and identified. Therefore it is possible that asbestos materials, which may be concealed within inaccessible areas/voids, may not have been located during the audit. Such inaccessible areas fall into a number of categories.

- (a) Locations behind locked doors.
- (b) In set ceilings or wall cavities.
- (c) Those areas accessible only by dismantling equipment or performing minor localised demolition works.
- (d) Service shafts, ducts etc., concealed within the building structure.
- (e) Energised services, gas, electrical, pressurised vessel and chemical lines
- (f) Voids or internal areas of machinery, plant, equipment, air conditioning ducts etc.
- (g) Totally inaccessible areas such as voids and cavities created and intimately concealed within the building structure. These voids are only accessible during major demolition works.
- (h) Height restricted areas.
- (i) Areas deemed unsafe or hazardous at time of audit

In addition to areas that were not accessible, the possible presence of hazardous building materials may not have been assessed because it was not considered practicable as:

1. It would require unnecessary dismantling of equipment; and/or
2. It was considered disruptive to the normal operations of the building; and/or
3. It may have caused unnecessary damage to equipment, furnishings or surfaces; and/or
4. The hazardous material was not considered to represent a significant exposure risk; and/or
5. The time taken to determine the presence of the hazardous building material was considered prohibitive.

Only minor destructive auditing and sampling techniques were employed to gain access to those areas documented in Appendix A. Consequently, without substantial demolition of the building, it is not possible to guarantee that every source of hazardous material has been detected.

During the course of normal site works care should be exercised when entering any previously inaccessible areas or areas mentioned above and it is imperative that work cease pending further sampling if materials suspected of containing asbestos or unknown materials are encountered. Therefore during any refurbishment or demolition works, further investigations and assessment may be required should any suspect material be observed in previously inaccessible areas or areas not fully inspected previously, i.e. carpeted floors.

This report is not intended to be used for the purposes of tendering, programming of works, refurbishment works or demolition works unless used in conjunction with a specification detailing the extent of the works. To ensure its contextual integrity, the report must be read in its entirety and should not be copied, distributed or referred to in part only.

NATA Accredited Sample Analysis Results

29 June 2012

Our ref: C108078:J105234-H01

Kevin Duffy
The University of Sydney
Level 1, Services Building G12
The University of Sydney NSW 2006

Dear Kevin,

Re: Asbestos Identification Analysis - Sydney University Regiment

This letter presents the results of asbestos fibre identification analysis performed on 19 samples collected by Leigh Rampley of Noel Arnold & Associates Pty Ltd on Wednesday 27 June, 2012. The samples were collected from Sydney University Regiment.

All sample analysis was performed using polarised light microscopy, including dispersion staining in our Sydney Laboratory in accordance with Noel Arnold and Associates Pty Ltd Test Method NALAB 302 "Asbestos Identification Analysis" and following the guidelines of Australian Standard AS4964-2004.

The samples will be kept for six months and then disposed of, unless otherwise directed.

The results of the asbestos identification analysis are presented in the appended table.

Should you require further information please contact the Sydney Laboratory (02) 9889 1800.

Yours sincerely
NOEL ARNOLD & ASSOCIATES PTY LTD



Nicole Collas: Approved Identifier



Nicole Collas: Approved Signatory



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Site Location:		Sydney University Regiment, Darlington Campus, University of Sydney	
	Sample ID	Sample Location/Description/Weight or Size	Analysis Result
1	J105234-H01 01	First Floor - Interior - BLDG 3 - Passage/Corridor - Throughout - Floor underlay - Beneath carpet - Vinyl floor tiles Grey flexible vinyl material and associated amber adhesive material ~ 40 x 20 x 2 mm	No Asbestos Detected
2	J105234-H01 02	First Floor - Interior - BLDG 3 - Room H6 - East - Counter top - Sheet vinyl - Hessian backed Brown brittle vinyl material and attached brown woven organic fibrous hessian-type matting material ~ 27 x 24 x 4 mm	No Asbestos Detected Organic Fibres
3	J105234-H01 03	First Floor - Interior - BLDG 3 - Stairs - Various Throughout - Floor coverings - Vinyl floor tiles Grey-painted green flexible vinyl material and associated amber adhesive material ~ 24 x 21 x 2 mm	No Asbestos Detected
4	J105234-H01 04	First Floor - Interior - BLDG 2 - BLDG 3 Passage / Theatrette - West - Fire door - Double - Fire door core (vermiculite material) White-gold compressed/formed powder, vitreous fibrous, mica vermiculite-type material ~ 19 x 7 x 1 mm	No Asbestos Detected Synthetic Mineral Fibres
5	J105234-H01 05	First Floor - Interior - BLDG 3 - Bar Store - Throughout - Floor coverings - Vinyl floor tiles Green-grey flexible vinyl material and associated amber adhesive material ~ 27 x 20 x 2 mm	No Asbestos Detected
6	J105234-H01 06	First Floor - Interior - BLDG 2 - Room 59 Theatrette Store - Throughout - Floor coverings - Vinyl floor tiles - Fibrous & hessian backed Green brittle vinyl material and attached brown woven organic fibrous hessian-type matting material with grey compressed organic fibrous sheet material ~ 80 x 35 x 4 mm	No Asbestos Detected Organic Fibres
7	J105234-H01 07	First Floor - Interior - BLDG 2 - Room 59 Theatrette Store - Throughout - Ceiling - Sprayed insulation White-grey loosely-formed vitreous fibrous material ~ 44 x 44 x 2 mm	No Asbestos Detected Synthetic Mineral Fibres
8	J105234-H01 08	First Floor - Interior - BLDG 2 - Room 59 - Boiler Room - Throughout - Ceiling - Fibre cement sheeting Unpainted gold-grey fibre-cement sheet material ~ 9 x 8 x 1 mm	No Asbestos Detected Organic Fibres
9	J105234-H01 09	First Floor - Interior - BLDG 2 - Room 59 - Boiler Room - East - Debris - To floor - Fibre cement sheet & sprayed insulation A: Unpainted gold-grey fibre-cement sheet material B: Grey loosely-formed vitreous fibrous material A: ~ 34 x 20 x 5 mm B: ~ 14 x 4 x 1 mm	A: Chrysotile (white asbestos) Organic Fibres B: No Asbestos Detected
10	J105234-H01 10	First Floor - Interior - BLDG 2 - Room 59 - Boiler Room - Various Throughout - Pipe insulation - Bandage wrap - Bituminous paper Black-brown resinous, bituminous fibrous sheet material ~ 60 x 30 x <1 mm	No Asbestos Detected Organic Fibres

Site Location:		Sydney University Regiment, Darlington Campus, University of Sydney	
	Sample ID	Sample Location/Description/Weight or Size	Analysis Result
11	J105234-H01 11	First Floor - Interior - BLDG 2 - Porch / Corridor - Throughout - Floor coverings - Sheet vinyl Dirty beige flexible vinyl material and associated amber adhesive material ~ 23 x 21 x 2 mm	No Asbestos Detected
12	J105234-H01 12	First Floor - Interior - BLDG 2 - Porch / Corridor - North - Stair nosing - Bituminous material Black-brown bituminous, asbestiform fibrous, quartz sheet material ~ 25 x 8 x 2 mm	Chrysotile (white asbestos)
13	J105234-H01 13	First Floor - Interior - BLDG 2 - Cleaner Store - Throughout - Original ceiling - Plaster mix White compressed/formed powder material ~ 24 x 15 x 1 mm	No Asbestos Detected
14	J105234-H01 14	Ground Floor - Exterior - Various Throughout - Expansion joints - Ground - Bituminous material Black-brown bituminous, organic fibrous material ~ 55 x 13 x 6 mm	No Asbestos Detected Organic Fibres
15	J105234-H01 15	Ground Floor - Exterior - BLDG 1 - Exterior - Various Throughout - Window frames - Construction joint mastic Cream semi-flexible mastic material ~ 45 x 10 x 3 mm	No Asbestos Detected
16	J105234-H01 16	Ground Floor - Interior - BLDG 2 - Mess Canteen - Throughout - Floor covering - Sheet vinyl Green patterned flexible vinyl material and attached grey compressed organic fibrous sheet material ~ 30 x 11 x 2 mm	No Asbestos Detected Organic Fibres Synthetic Mineral Fibres
17	J105234-H01 17	Ground Floor - Exterior - BLDG 2 - Exterior - Various Throughout - Expansion joints - Walls - Construction joint mastic Black-brown bituminous, asbestiform fibrous adhesive material ~ 20 x 18 x 2 mm	Chrysotile (white asbestos)
18	J105234-H01 18	Ground Floor - Interior - BLDG 1 - Emergency Exit Stairwell - Throughout - Ceiling - Sprayed insulation White-grey compressed/formed vitreous fibrous material ~ 60 x 37 x 2 mm	No Asbestos Detected Synthetic Mineral Fibres
19	J105234-H01 19	Ground Floor - Interior - BLDG 1 - All Rooms - Various Throughout - Floor Underlay - Sheet vinyl Beige flexible vinyl material and associated amber adhesive material ~ 15 x 7 x 2 mm	No Asbestos Detected

* Shaded row with bolded text indicates a positive result for asbestos.