

Register of Hazardous Materials Report

Redfern Courthouse & Police Station
103-105 Redfern Street
REDFERN NSW 2016

Prepared for: Reda Bishay

Department of Commerce
Level 7 Civic Tower
66-72 Rickard Rd. Bankstown NSW

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- Appendix A Photographs
- Appendix B Legislative Requirements
- Appendix C Hazardous Materials Maintenance Log
- Appendix D Certificate(s) of Analysis

EXECUTIVE SUMMARY

Coffey Environments conducted an investigation at the Redfern Courthouse and Police Station located in Redfern NSW for the purpose of identifying the presence and potential exposure risks associated with the following hazardous materials:

- Asbestos;
- High Risk synthetic mineral fibre (SMF);
- Polychlorinated biphenyls (PCB) in capacitors within fluorescent light fittings;
- Reportable ozone depleting substances; and
- Lead paint.

Hazardous material surveys involve the investigation and identification of Asbestos Containing Materials (ACM), Synthetic Mineral Fibre (SMF), Polychlorinated Biphenyls (PCB) located in capacitors within fluorescent light fittings, ozone depleting substances and lead in paint materials.

From the site survey and laboratory analysis results (where applicable), a register of Hazardous Materials has been produced, including ACM in accordance with the requirements of the National Occupational Health and Safety Commission *Code of Practice for the Management and Control of Asbestos in Workplaces; [NOHSC:2018 (2005)]*.

State legislation and guidance requires that the register be used by property owners, employers, controllers of premises and other interested parties, such as contractors, as part of an overall asbestos management plan designed to control the risks of exposure to asbestos fibres.

Hazardous materials were identified or suspected during the survey, as detailed in the register. Recommended actions and risk control strategies are contained within the register and the report.

Attention is drawn to the following which were identified as high risk or requiring action in the form of restricted access and removal:

Redfern Police Station

- Fibre cement sheet remnant located lying on roof of building adjacent gable roof
- Moulded fibre cement cable pit located south side of the building penetrating the ground, near entry.
- Fibre cement sheet ceiling lining located "Small Exhibits" room, ceiling above suspended ceiling tiles.

Redfern Courthouse

- Settled lead dust on ceiling within ceiling space located western and eastern wing of the courthouse.

1 INTRODUCTION

Coffey Environments was commissioned by the **NSW Department of Commerce** to conduct a Hazardous Building Materials Survey for the Redfern Courthouse and Police Station during July 2006.

Ibrahim Ech and Lisa McCoy of Coffey Environments carried out the inspection and Mr Reda Bishay (Project Officer) provided information regarding the site and its history. Other information was obtained from vendor manuals, standards, guidelines, regulations and other material available in the public domain.

The assessment was conducted on the basis of the condition of the materials at the time of inspection and the future anticipated activities at the site. The scope of this investigation did not allow intrusive sampling techniques to be undertaken due to the property still being occupied, and consequently this report may only be used as a partial reference document for the purposes of demolition.

1.1 Background

The site has not been previously assessed by Coffey Environments.

The purpose of the survey was to comply with current regulations and prior to the proposed Demolition project for the Subject Site.

1.2 Scope

The scope of work required Coffey Environments to:

- Mobilise a technician/consultant to and from the site.
- Liaise with personnel and collect data on the history, use and function of the site.
- Conduct an Hazardous Materials Survey of the site.
- Collect samples of suspect asbestos and lead paint material (where accessible) and submit samples for laboratory analysis. Note: Only 'typical' suspected occurrences are to be collected and sampled (e.g. one in every same fire door / gasket will be analysed).
- Document the details of materials identified including photographs.
- Record, collate and report the findings.
- Deliver one bound and one soft copy report to the client.

2 METHODOLOGY

Asbestos surveys are undertaken considering a risk management approach, in accordance with best practice and recent State Government Legislation. An Occupational Health and Safety and Environmental risk assessment was conducted based on the condition of building materials identified during the survey and prioritised through Action Classifications, listed below.

The assessment involved the investigation for the presence of hazardous materials (as nominated) and information was collected from the owners/occupiers/tenants of the site on relevant issues pertaining to the site. Based on the all available data and the status of the Site at the time of inspection, where items suspected of containing asbestos and lead were identified, visual and/or analytical characterisation (where required) was performed and reported in this Hazardous Materials Register.

Only 'typical' suspected asbestos and lead material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same building is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Sample collection was performed in a non-destructive and non-invasive manner (unless otherwise permitted - as in a Demolition Survey).

Hazardous material surveys are restricted to areas that are reasonably accessible during the survey, with respect to the following:

- a) without contravention of relevant statutory requirements or codes of practice;
- b) without demolition or damage to finishes and structure unless otherwise permitted; and
- c) excluding plant and equipment that was 'in service' and operational.

Where the Surveyor encounters access restrictions during the survey, these situations are documented and reported.

No assessment can be regarded as absolute. Future complete demolition or refurbishment of structures may reveal materials concealed during the assessment which were not made accessible at the time of the Survey.

As detailed above, an assessment of the resultant risks has been prioritised through the use of following Action Classifications (i.e. Action 1 – Action 4). These action classifications apply to asbestos materials identified during the survey and are detailed within this report

Action 1 (A1) Restrict access and target for imminent removal

Unacceptable risk due to likely exposure and/or environmental damage. As a guide, the material conforms to one or more of the points listed below:

- Friable or poorly bonded to substrate, located in accessible areas
- Severely water damaged, or unstable
- Further damage or deterioration likely
- Friable asbestos material located in air conditioning ducting
- Asbestos debris in reasonably accessible areas
- Reasonably accessible stored asbestos material
- Leaking polychlorinated biphenyl (PCB) containing capacitors.
- BCF containing fire retardant equipment.
- Flaking or powdering lead paint.

Action 2 (A2) Restrict access or enclose, encapsulate or seal

Elevated risk due to likely exposure and/or environmental damage. As a guide, the material conforms to one or more of the points listed below:

- High removal risks or not feasible
- Complete enclosure achievable
- Friable or poorly bonded to substrate, with bonding achievable
- Possibility of disturbance through contact
- Possibility of deterioration caused by weathering
- Deteriorated lead paint

Action 3 (A3) Remove during maintenance or refurbishment

Possibility of an elevated risk due to potential exposure from the ongoing degradation of the material, or potential environmental damage. As a guide, the material conforms to one or more of the points listed below:

- Asbestos debris in rarely accessed areas
- Disturbance or damage unlikely other than during maintenance or service
- Readily visible for further assessment
- Asbestos friction materials, gaskets and brake linings
- Synthetic mineral fibre debris.
- Polychlorinated biphenyl (PCB) containing capacitors in good condition.

Paint containing lead.

Action 4 (A4) No action required, unless disturbed

Elevated risk unlikely, unless conditions or site activities change. As a guide the material conforms to one, or more, of the points listed below:

- Firmly bonded to substrate and readily visible for inspection
- Inaccessible and fully contained
- Stable and damage unlikely.

2.1 Asbestos Fibre Identification

Samples taken from suspected asbestos containing materials are representative of the material sampled, individually identified, transported, analysed and reported in accordance with the National Occupational Health and Safety Commission (NOHSC) Guidelines, relevant Statutory Regulations, Codes of Practice and Coffey Environments Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted.

The presence of asbestos in a bulk sample is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques.

Where air monitoring is undertaken, the NIOSH Membrane Filter Method is used, determining the quantity of airborne fibres. Supplementary testing (where required) is conducted using Scanning Electron Microscopy (SEM) with Energy Dispersive X ray Analysis (EDAX) for the determination / characterisation of asbestos fibres.

2.2 Synthetic Mineral Fibre Identification

Synthetic mineral fibre (SMF) materials are visually identified, with representative samples obtained where visual identification is insufficient. Situations identified are reported in accordance with relevant Statutory Regulations, Codes of Practice and Coffey Environments Work Instructions.

2.3 Polychlorinated Biphenyls Identification

Polychlorinated biphenyls (PCB) contained within capacitors in fluorescent light fittings are identified by visual observation and the Australia and New Zealand Environment and Conservation Council (ANZECC) Checklists.

2.4 Ozone Depleting Substance Identification

Refrigerant type is identified by visual observation of the compliance plates and referring to the Australian Refrigeration and Air-conditioning Code of Good Practice (1992).

2.5 Lead in Paint Identification

Samples taken from suspected lead paint situations are representative of the material sampled, individually identified, transported, analysed and reported in accordance with relevant Statutory Regulations, Codes of Practice and Coffey Environments Work Instructions.

The presence of lead in paint is determined by Atomic Absorption Spectroscopy (AAS) via an acid digest solution, by an appropriately NATA certified laboratory. The results are expressed as the lead concentration by weight of paint, either as a percentage or as mg/kg.

3 RESULTS

3.1 Hazardous Materials Register

ASSESSMENT DATE: 21st July 2006

ADDRESS: Redfern Courthouse & Police Station, Redfern Street, Redfern NSW

The following section contains the register of hazardous materials identified or suspected during the site survey. This register has been produced in accordance with the requirements of the National Occupational Health and Safety Commission *Code of Practice for the Management and Control of Asbestos in Workplaces; [NOHSC:2018 (2005)]*.

The register is in tabular form and flows from left to right starting with the material description, through additional information, leading to an assessment of risk and recommended action for remedial works. Recommended actions are a guide only. 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 etc.

For Action Classification, Material Descriptors and Register Terminology Coding please refer to Section 4-GLOSSARY

The following Register is to be read in conjunction with the whole report. Additional information is attached (Appendix A)

Hazardous materials identified are listed in order of Action required

Coffey Environments can assist with risk management of all hazardous material situations from identification, to management and eventual removal.

Assessment by:	Ibrahim Ech and Lisa McCoy	Date:	21st July 2006	Register Review & Re-Inspection:	July 2007
Site Contact:		Site Location:	Redfern Police Station		

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Asbestos	EF-890	CH, AM	1	Roof lining beneath roof tiles	External: Lower gable roof	Av	N	E	L	N	L	A2		1.6m ² – damaged at NW corner. Remove damaged corner piece then follow action
Asbestos	Refer EF-890	CH, AM	-	Roof lining beneath roof tiles	External: Upper gable roof	Av	N	E	L	N	L	A2		1.6m ² – Edges exposed
Asbestos	Refer EF-890	CH, AM	-	Fibre cement sheet remnant	External: Lying on roof of building adjacent gable roof	P	N	E	L	N	L	A1		0.4m ²
Asbestos	EF-891	CH, AM	2	Fibre cement sheet gable lining	External: North elevation on upper & lower gable roof	Av	N	E	L	N	L	A2		6m ² – Edges exposed
Asbestos	EF-895	CH, AM, CR	3	Moulded fibre cement cable pit	External: South side of building penetrating the ground, near entry	Av	N	E	L	N	L	A1		3m ² – Inform relevant service provider
Asbestos	EF-903	CH, AM	4	Fibre cement sheet eaves lining	External: North, East and West of the courtyard area.	G	Y	B	L	N	L	A4		15m ²
Asbestos	Refer EF-903	CH, AM	-	Fibre cement sheet ceiling lining	Internal - ground floor (GF): Gun "store" room	G	Y	B	L	N	L	A4		9m ²
Asbestos	EF-904	CH, AM	5	Fibre cement sheet ceiling lining	Internal - GF: "Small Exhibits" room, ceiling above suspended ceiling tiles	P	N	E	L	N	M	A1		20m ²
Asbestos	Visual Observation	Suspect Asbestos	6	Water proof membrane to ceiling lining	Internal - GF: "Charge area" and throughout building - ceiling space eastern side only.	G	Y	B	L	N	L	A4		No access for sample
Asbestos	EF-910	CH, AM	-	Moulded Fibre Cement flue to Rheem Water system.	Internal Level 1 (L1): Cleaners room ceiling space and continues through to roof space	G	N	E	L	N	L	A2		6m ² – unsealed in roof space which has to be sealed

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Asbestos	EF-911	CH	7	Fibre cement sheet to upper and lower ceiling linings	Internal L1: Men's Amenities	G	Y	B	L	N	L	A4		15m ²
Asbestos	Refer EF-911	CH	-	Fibre cement sheet to infill panel between upper and lower ceiling	Internal L1: Men's Amenities	G	Y	B	L	N	L	A4		2m ²
Asbestos	EF-905	NAD+	-	Vinyl sheeting floor covering (grey)	Internal - GF: "Charge area"	-	-	-	-	-	-	-	-	16m ²
Asbestos	EF-906	NAD+	-	Vinyl sheeting floor covering	Internal ground floor: "Corridor A"	-	-	-	-	-	-	-	-	12m ²
Asbestos	EF-907	NAD	-	Fibre Cement Sheet wall lining	Internal - GF: "Charge area" room, North wall and Eastern part of wall	-	-	-	-	-	-	-	-	14m ²
Asbestos	EF-908	NAD	-	Fire retardant vermiculite to horizontal structural beams	Internal - GF: "Charge area" room & Building - ceiling space	-	-	-	-	-	-	-	-	6m ² ("charge area" only)
Asbestos	EF-909	NAD	-	Sprayed vermiculite to horizontal beams	Internal - GF: Room between "Charge area" & "General Office", within ceiling space.	-	-	-	-	-	-	-	-	20-50m ²
Asbestos	Refer EF-909	NAD	-	Sprayed vermiculite to horizontal beams	Internal - GF: ceiling space throughout	-	-	-	-	-	-	-	-	(as above)
SMF	Visual Observation	SMF	-	Acoustic tiling as the suspended ceiling	Internal - GF: "Corridor C" and throughout building	Av	N	F	L	N	L	A3		
SMF	Visual Observation	SMF	-	Ceiling tiles	Internal - GF: Padded Cell located North of "Interview & Breath Analysis" room.	G	N	F	L	N	L	A3		
SMF	Visual Observation	SMF	-	Insulation within Rheem water heater	Internal L1: Cleaners Cupboard	G	Y	F	L	N	L	A4		
PCB	Visual Observation	Suspect PCB	-	Capacitor: Plessey 7. µf, Type: MPF270CR - Troffer twin tube light	Internal -GF "Locker Room 2" and throughout building	G	Y	-	L	N	M	A3		Not in ANZECC 1997 reference, but similar to Plessey type APF 290 CR

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
PCB	Visual Observation	Suspect PCB	-	Capacitor: Plessey 4. µf, Type: APF240SCR to single tube fluorescent lighting	Internal -GF: Beneath the stairs leading to First Floor.	G	Y	-	L	N	L	A3		Not in ANZECC 1997 reference, but similar to Plessey type APF 250 CR
PCB	Visual Observation	Suspect PCB	-	Capacitor: ATCO MKP 3.2µf to twin tube fluorescent lighting.	Internal -GF: Male Amenities	G	Y	-	L	N	L	A3		Not in ANZECC 1997 reference
PCB	Visual Observation	Suspect PCB	-	Capacitor: Plessey 3.5µf, 427//04503/004, to single tube fluorescent light	Internal -GF: Gun "Store" room	G	Y	-	L	N	L	A3		Not in ANZECC 1997 reference
PCB	Visual Observation	Suspect PCB	-	Metal Capacitor: ETC 12. µf, Type:PHN454	Internal -L1:"Assistant Officers" room and also throughout other offices.	G	Y	-	L	N	L	A3		Not in ANZECC 1997 reference
ODS	Visual Observation	HCFC	-	Refrigerant R22 of Mitsubishi A/C unit (x2)	External: West elevation	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of Airwell A/C unit	External: West elevation	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of Starway A/C unit	External: West elevation	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of Starway A/C unit	External: South-west corner in courtyard	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of unknown A/C unit	External: West elevation, adjacent window	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of unknown A/C unit (x6)	External: South elevation, adjacent windows	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of Mitsubishi A/C unit	External: North-east corner of building	-	-	-	L	-	L	A4		
ODS	Visual Observation	HCFC	-	Refrigerant R22 of Airfact A/C unit	External: Eastern elevation	-	-	-	L	-	L	A4		

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Pb	EX-618	Pb 25.9%	8	Paint work (white) to window framing	External: South elevation	Av	-	-	L	-	L	A2		Localised flaking
Pb	Refer EX-618	Pb 25.9%	-	Paint work (white) to window framing	External: West elevation	Av	-	-	L	-	L	A2		Localised flaking
Pb	EX-625	Pb 18.4%	9	Paint work (dark cream) to ceiling lining	Internal -GF: "Interview & Breath Analysis" room, above suspended ceiling tiles.	P	-	-	H	-	H	A2		Major deterioration
Pb	EX-619	Pb 0.2%	-	Paint work (blue) to door & frame	External: South elevation at south-east corner	-	-	-	-	-	-	-		
Pb	Refer EX-619	Pb 0.2%	-	Paint work (blue) to door & frame	External: South elevation at south-west corner	-	-	-	-	-	-	-		
Pb	Refer EX-619	Pb 0.2%	-	Paint work (blue) to door & frame	External: South elevation at main entry on western elevation.	-	-	-	-	-	-	-		
Pb	EX-624	Pb <0.1%	-	Paint work (blue) to wall lining	Internal -GF: Corridor C and throughout	-	-	-	-	-	-	-		
Pb	EX-626	Pb <0.1%	-	Paint work (light blue) to walls	Internal L1: "Finance Room" (as labelled on door) located west of kitchen. Also throughout first floor.	-	-	-	-	-	-	-		
Pb	EX-627	Pb <0.1%	-	Paint work (light blue) to ceiling	Internal L1: "Assistant Officers" room and also throughout First Floor	-	-	-	-	-	-	-		
Paint is determined to contain lead where sample analysis is greater than 1%														

Assessment by:	Ibrahim Ech	Date:	21st July 2006	Register Review & Re-Inspection:	July 2007
Site Contact:		Site Location:	Redfern Courthouse		

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Asbestos	EF-892	CH, AM, CR	10	Fibre Cement Sheet eaves lining	External: South elevation of "magistrates chamber" room's Bathroom & "female staff"	P	N	E	L	N	M	A2		1.6m ² – Remove broken panel then seal remaining panels
Asbestos	Refer EF-892	CH, AM, CR	-	Fibre Cement Sheet eaves lining	External: North elevation of "records room" which continues around "staff meals room"	G	N	B	L	N	L	A2		2.4m ² – To be sealed
Asbestos	EF-894	CH	11	Sealant (white) between brick work	Externally throughout elevations of main courthouse building	Av	N	B	L	N	L	A2		Thinly applied throughout, broken application
Asbestos	EF-896	CH, AM, CR	12	Fibre Cement Sheet ceiling Lining	Internal corridor, between "male staff" & "records room"	Av	N	E	L	N	L	A2		3m ² – Edges exposed
Asbestos	Refer EF-896	CH, AM, CR	-	Fibre Cement Sheet ceiling Lining	Internal: "records room"	Av	N	E	L	N	L	A2		12m ² – Edges exposed
Asbestos	EF-898	CH, AM	-	Fibre Cement Sheet ceiling Lining	Internal Corridor, between "male staff" & " new records room"	G	Y	B	L	N	L	A4		4m ²
Asbestos	Refer EF-898	CH, AM	-	Fibre Cement Sheet ceiling Lining	Internal: "male staff"	G	Y	B	L	N	L	A4		4m ²
Asbestos	EF-899	CH, AM, CR	-	Fibre Cement Sheet ceiling Lining	Internal: "Female staff", laboratory section	G	Y	B	L	N	L	A4		2m ²
Asbestos	Refer EF-899	CH, AM, CR	-	Fibre Cement Sheet eaves lining	Internal: "Magistrates chamber's" bathroom, laboratory section	G	Y	B	L	N	L	A4		2m ²
Asbestos	EF-900	CH	13	Fibre Cement Sheet ceiling lining	Internal "Female staff", toilet section	G	Y	B	L	N	L	A4		2m ²

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Asbestos	Refer EF-900	CH	-	Fibre Cement Sheet ceiling Lining	Internal "magistrates chamber's" bathroom toilet section	G	Y	B	L	N	L	A4		2m ²
Asbestos	EF-901	CH	14	Fibre Cement Sheet wall lining	Internal: "clerical office", within the Switchboard cupboard's eastern wall	Av	N	E	L	N	L	A2		3m ² – Edges exposed
Asbestos	EF-902	CH	-	Fibre Cement Sheet Door lining of Switchboard cupboard doors	Internal: "clerical office", within the Switchboard cupboard	G	Y	B	L	N	L	A4		4m ²
Asbestos	Refer EF-902	CH	-	Fibre Cement Sheet inner cupboard door frame	Internal: "clerical office", within the Switchboard cupboard, door frame at the top & to the right.	Av	N	E	L	N	L	A2		0.2m ² – Edges exposed
Asbestos	EF-897	NAD+	-	Vinyl Sheet floor covering	Internal corridor from main Courthouse to Police Station.	-	-	-	-	-	-	-	-	18m ²
Asbestos	Refer EF-897	NAD+	-	Vinyl Sheet floor covering	Internal "staff meal room's" kitchenette.	-	-	-	-	-	-	-	-	4m ²
Asbestos	Refer EF-897	NAD+	-	Vinyl Sheet floor covering	Internal "DV room's" kitchenette.	-	-	-	-	-	-	-	-	1.5m ²
Asbestos	Refer EF-897	NAD+	-	Vinyl Sheet floor covering	Internal "new records room".	-	-	-	-	-	-	-	-	12m ²
Asbestos	EF-893	NAD	-	Malthoid Membrane Black expansion joint	Externally on either side of "ramp" and between cement blocks of the ramp.	-	-	-	-	-	-	-	-	
SMF	EF-889	SMF	15	SMF dust on ceiling	Internal ceiling space, western wing of the courthouse.	P	N	F	L	N	H	A3		Initially tested for asbestos but analysis resulted in SMF
SMF	EF-889	SMF	-	SMF dust on ceiling	Internal ceiling space, eastern wing of the courthouse.	P	N	F	L	N	H	A3		Initially tested for asbestos but analysis resulted in SMF.
SMF	Visual Observation	SMF	-	Foiled insulation to ceiling lining	Externally on the roof top, within the metal plant housing room	G	Y	F	L	N	L	A4		
SMF	Visual Observation	SMF	-	Insulation on ceiling	Internal ceiling space, western wing of the courthouse.	Av	N	F	L	N	L	A3		

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
SMF	Visual Observation	SMF	-	Insulation on ceiling	Internal ceiling space, eastern wing of the courthouse.	Av	N	F	L	N	L	A3		
SMF	Visual Observation	SMF	-	Foiled insulation around pipework	Internal ceiling space, western wing of the courthouse.	G	Y	F	L	N	L	A4		
SMF	Visual Observation	SMF	-	Foiled insulation around pipework	Internal ceiling space, eastern wing of the courthouse.	G	Y	F	L	N	L	A4		
SMF	Visual Observation	SMF	-	Foiled insulation to A/C pipework	Internal: eastern side of the main courthouse building at sub-level, within A/C plant room.	G	Y	F	L	N	L	A4		
PCB	Visual Observation	Non PCB	-	Capacitor: ATCO, 7.0uf, BSEN61048 1997 to twin tube fluorescent lighting	Internal "staff meal room"	G	Y	-	L	N	L	A4		Dated 1997 year – not suspected
PCB	Visual Observation	Suspect PCB	-	Capacitor: Plessey 427/1/00504/003 BS4067 1973	Internal Corridor between "male staff" & "new records room"	G	Y	-	L	N	L	A3		Not in ANZECC 1997 reference - suspect due to year 1973
PCB	Visual Observation	Suspect PCB	-	Capacitor: Plessey 427/1/00504/003 twin tube lighting	Internal "male staff"	G	Y	-	L	N	L	A3		Not in ANZECC 1997 reference - suspect due to year 1973
ODS	Visual Observation	Suspect HCFC	-	Unidentified refrigerant (x2) to compressor (suspect R22)	Internal: eastern side of the main courthouse building at sub-level, within A/C plant room.	-	-	-	L	-	L	A4		
ODS	Visual Observation	HFC	-	Refrigerant 135 to Chiller Compressor	External: Roof area, within plant housing	-	-	-	-	-	-	-	-	
Lead paint	EX-612	Pb 35.5%	16	Paint work (cream) to window framing	External: perimeter of courtroom upper roof elevations	P	-	-	M	-	M	A2		Major deterioration
Lead paint	Refer EX-612	Pb 35.5%	-	Paint work (cream) to window framing	External: Nth, West, East elevations of main courthouse	P	-	-	M	-	M	A2		Major deterioration
Lead paint	EX-610	Pb 0.6%	-	Paint work (green) to compressor	Externally on the roof top, within plant housing.	-	-	-	-	-	-	-	-	

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Lead paint	EX-613	Pb 0.2%	-	Paint work (cream) to window framing	External, "Staff Meal Room", west elevation	-	-	-	-	-	-	-	-	
Lead paint	Refer EX-613	Pb 0.2%	-	Paint work (cream) to window framing	External: South elevation of "Magistrates Chamber" room's Bathroom & "Female Staff"	-	-	-	-	-	-	-	-	
Lead paint	EX-614	Pb 0.4%	-	Paint work (brown) to window framing	External: Within area that leads to roof top, Nth elevation behind the ladder.	-	-	-	-	-	-	-	-	
Lead paint	EX-615	Pb 0.2%	-	Paint work (White) to walls	External, within area that leads to roof top, Nth elevation behind the ladder	-	-	-	-	-	-	-	-	
Lead paint	EX-616	Pb <0.1%	-	Paint work (pale yellow)	External east elevation of main courthouse building walls	-	-	-	-	-	-	-	-	
Lead paint	EX-617	Pb 0.2%	-	Paint work (pale yellow)	Internal: Vestibule room ceiling	-	-	-	-	-	-	-	-	
Lead paint	Refer EX-617	Pb 0.2%	-	Paint work (pale yellow)	Internal Vestibule room ceiling	-	-	-	-	-	-	-	-	
Lead paint	EX-620	Pb 0.1%	-	Paint work (pale tan colour) to walls	Internally east & west walls of corridor, between "male staff" & "new records room"	-	-	-	-	-	-	-	-	
Lead paint	EX-611	150mg/m ²	Refer 6	Lead dust on ceiling	Internal ceiling space, western wing of the courthouse.	P	-	-	L	-	H	A1		Extremely high analysis result.
Lead paint	Refer EX-611	150mg/m ²	Refer 6	Lead dust on ceiling	Internal ceiling space, eastern wing of the courthouse.	P	-	-	L	-	H	A1		Extremely high analysis result.
Lead paint	EX-621	Pb 19.2%	17	Paint work (cream) to walls	Internally throughout corridors of main courthouse building	Av	-	-	L	-	L	A2		Localised flaking
Lead paint	EX-622	Pb 13.4%	18	Paint work (yellow) to walls	Internal: "clerical office", within the Switchboard cupboard, Nth & West walls	Av	-	-	L	-	L	A2		Localised flaking

Hazard Group	Sample No.	Lab Results	Photo No.	Description	Location	Condition	Sealed	Friability	Activity	Labelled	Risk	Action	Removed (Resurvey)	Comments (incl. approx amount of Asbestos)
Lead paint	EX-623	Pb 2.2%	19	Paint work (pale blue) to walls	Internal "DV Room"	P	-	-	L	-	L	A2		Localised flaking
Lead paint	Refer EX-623	Pb 2.2%	-	Paint work (pale blue) to walls	Internally throughout majority of court office rooms	P	-	-	L	-	L	A2		Localised flaking
Paint is determined to contain lead where sample analysis is greater than 1%														

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4 GLOSSARY

The following terminology is used within the register to describe the materials identified:

Condition

Good	The material is in sound condition with none to very minor damage or deterioration.
Average	The material is generally in sound condition, with some areas of damage or deterioration.
Poor	The material is extensively damaged and/or deteriorated.

Sealed

Y	Yes	The material is fully coated, sealed or enclosed
N	No	The material is only partially sealed, coated or enclosed or fibres are not fully sealed.

Friability

F	Friable	This material, when dry, is easily crumbled, pulverised or reduced to powder by hand pressure eg: pipe lagging/ insulation. Such materials release fibres more readily than bonded products.
B	Bonded	Fibres are bound within the matrix of the material and therefore are not friable, i.e. asbestos cement sheet, vinyl floor tiles, SMF batts. Such materials do not readily release fibres unless subject to action such as abrading or breakage.
E	Exposed Fibres	This is a bonded material which has visible exposed fibres due to damage or deterioration of the material matrix. Fibres may be released from the damaged area under less action than if completely bonded.

Labelled

Y	Yes	The asbestos situation is labelled so as to be noticeable from normal approaches
N	No	The situation is not labelled as above

Activity

L	Low	Very little or no activity with the potential to disturb the material. Monthly occupancy or less, or inaccessible due to height or enclosure.
M	Moderate	Moderate activity with the potential to disturb the material. Weekly access / occupancy.
H	High	Regular activity with the potential to disturb the material. Daily access / occupancy

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Risk

L	Low	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.
M	Medium	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.
H	High	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 or eg. Leaking capacitors in accessible areas. Also relates to friable material in air plenums with no air monitoring regime in place.
E	Extreme	There is an immediate exposure risk to anyone entering the area due to friable material which has already been disturbed. Immediate action is required to restrict access and stop the spread of fibres as well as plan for decontamination and remedial works. <i>Such situations are rare and would not normally be reported within the register as the client would be advised of the urgency at the time of the survey and control measures applied before the development of the register.</i>

Action

A1	Action 1	Restrict access and remove
		<p>As a guide, the material conforms to one, or more, of the following:</p> <ul style="list-style-type: none"> Friable or poorly bonded to substrate, located in accessible areas Severely water damaged, or unstable Further damage or deterioration likely Friable asbestos material located in air conditioning ducting Asbestos debris and stored asbestos in reasonably accessible areas Leaking polychlorinated biphenyl (PCB) containing capacitors Flaking or powdering lead paint
A2	Action 2	Enclose, encapsulate or seal
		<p>As a guide, the material conforms to one, or more, of the following:</p> <ul style="list-style-type: none"> High removal risks or not feasible Complete enclosure achievable Friable or poorly bonded to substrate, with bonding achievable Possibility of disturbance through contact Possibility of deterioration caused by weathering Deteriorated lead paint

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A3	Action 3	Remove during refurbishment or maintenance
		<p>As a guide, the material conforms to one, or more, of the following:</p> <p>Asbestos debris or stored material in rarely accessed areas</p> <p>Further disturbance or damage unlikely other than during maintenance or service</p> <p>Readily visible for further assessment</p> <p>Asbestos friction materials, gaskets and brake linings Synthetic mineral fibre debris.</p> <p>Polychlorinated biphenyl (PCB) containing capacitors in good condition.</p> <p>Lead paint</p>
A4	Action 4	No remedial action
		<p>As a guide, the material conforms to one, or more, of the following:</p> <p>Firmly bonded to substrate and readily visible for inspection</p> <p>Inaccessible and fully contained</p> <p>Stable and damage unlikely</p>

Material Descriptors

CH Chrysotile (white) Asbestos

CR Crocidolite (blue) Asbestos

AM Amosite (brown) Asbestos

NAD No Asbestos Detected

ACM Asbestos Containing Material or product

SMF Synthetic Mineral fibre

PCB Polychlorinated Biphenyls

Pb Lead

NLD No Lead Detected

HFC Hydrofluorocarbons

HCFC Hydrochlorofluorocarbons

CFC Chlorofluorocarbons

Acronyms

NOHSC National Occupational Health and Safety Commission

NATA National Association of Testing Authorities, Australia

A/C Air Conditioning

F/C Fibre Cement

PLM Polarised Light Microscopy

SEM Scanning Electron Microscopy

EDAX Energy Dispersive X-ray Analysis

AAS Atomic Absorption Spectroscopy

Units of Measurement

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m	metre	L	litre
m ²	square metres	mg/L	milligrams per litre
m ³	cubic metres	mg/kg	milligrams per kilogram
km	kilometre	fibre/mL	fibres per millilitre
mg	milligram	mL	millilitre
kg	kilogram	%	percentage
µF	micro Farads		

5 RECOMMENDATIONS

5.1 Asbestos Materials Identified

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Material Safety Data Sheets, Work Instructions or reasonable work practices.

5.1.1 Friable & Bonded Asbestos

Asbestos containing materials (ACM) are referred to as either friable or bonded. Friable asbestos is in the form of a powder, or can be crumbled, pulverized or reduced to powder by hand pressure when dry. **Friable asbestos** includes materials such as sprayed and thermal insulation, pipe lagging and millboard, and can release fibres with only minimal disturbance.

Bonded asbestos products are ones in which the asbestos fibres are bound within the matrix of the material. Bonded asbestos is difficult to damage or cause the release of fibres by hand and includes materials such as asbestos cement sheeting (fibre cement or fibro), vinyl floor tiles and zelemite electrical switchboards. However, bonded asbestos containing materials that have been subjected to weathering, physical damage, water damage, fire or other conditions may contain exposed fibres which could be released upon disturbance.

5.1.2 Control Measures

Friable ACM exhibits the greatest risk to human health as fibres are released upon minimal disturbance. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems.

Alternatively removal and replacement may not be the preferred option for bonded ACM in a good and stable condition as the risk associated with removal could be high.

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

- If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied and removal is required as soon as practicable using a licensed removalist.
- If the ACM is friable and accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.
- If the ACM is bonded and in a poor/unstable condition; minimising disturbance and removal or encapsulation may be appropriate controls.
- For bonded ACM's in a good and stable condition, ongoing maintenance and periodic inspection would be appropriate controls.
- Any remaining identified ACM's or presumptions should be appropriately labelled, where possible, and regularly inspected to ensure they are not deteriorating resulting in a potential risk to health.
- Prior to any demolition, partial demolition, renovation or refurbishment, asbestos containing materials likely to be disturbed by those works should be removed in accordance with the NOHSC Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002 (2005)].

Further assessment of risk through airborne fibre monitoring can assist with decisions on the most appropriate, and urgency of, control measures.

Other control measures such as training and communication strategies, control of contractors and administrative procedures must be considered as part of the overall Asbestos Management Plan.

Coffey Environments Occupational Health and Safety Team is able to assist with all aspects of Asbestos Risk Management

5.2 Synthetic Mineral Fibre

Synthetic Mineral Fibre (Encapsulated or Bonded)

No high risk synthetic mineral fibre was identified at the site during the survey.

Synthetic mineral fibre that has been encapsulated or is in a bonded form does not present a significant risk in its present state. Should works be required that may expose synthetic mineral fibres, safety goggles, disposable coveralls, P2 mask and gloves should be provided to minimise skin and respiratory tract irritation while working with this product.

5.3 Polychlorinated Biphenyls (Capacitors Only)

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Capacitors within Fluorescent Light Fittings

Capacitors (metal) containing PCBs within fluorescent light fittings in Building 5a present a negligible risk to the occupants of the building unless damaged or leaking.

The preferred control option is to remove and replace all capacitors containing PCBs or the fluorescent light fittings. If this is not immediately feasible, then a regular maintenance program should be enforced whereby capacitors found to be leaking PCBs, are removed and replaced with non-PCB capacitors.

PCBs are an environmental hazard and must be handled in accordance with Worksafe Guidance Notes. After removal, provision should be made for appropriate storage of PCB-containing capacitors until they can be disposed of.

5.4 Ozone Depleting Substance

Air-conditioning systems within Building 4a was identified as containing the following refrigerants - (HCFC):

- R22.

When CFC or HCFC refrigerants are in use, the following points should be considered:

- what type of refrigerants are being used,
- the loss rate of refrigerant,
- what is the remaining economic life of the equipment.

Control strategies for CFC and HCFC refrigerants include:

- CFC and HCFC based equipment should be made leak free (note that domestic refrigerators are leak free) where feasible;
- CFC and HCFC based equipment should be converted/retrofitted or replaced with equipment using ozone benign refrigerants where feasible; and

A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of.

6 BIBLIOGRAPHY

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Statement of Limitations

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

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

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client instructions, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected. However there can be no guarantee that conditions at specific points not able to be inspected do not vary from the interpreted conditions based on the available observations/data.

In order to determine actual environmental conditions at specific intermediate points away from those observed/tested to date, those specific points would need to be inspected/tested.

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

This inspection and report does not include the following areas:

- Main Switch Room-MSR3 between building 5a & 6 (due to no access provided on the day); and
- Internal Areas of Demountable Building 5b- (No keys provided for access)

Internal building materials should be assumed to contain asbestos and lead-based paint, and any fluorescent lights inside the buildings should be assumed to contain PCB capacitors until otherwise assessed.

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

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

Demolition Survey

This assessment will involve the sampling and documentation of suspected hazardous materials and visual or analytical identification. However, for these facilities to be demolished, a 'Destructive Inspection' will be undertaken to identify all reasonable occurrences of hazardous materials. Of particular concern are fire-proofing of structural steel and insulation of pipes through wall and floor penetrations.

While reasonable care and attention to detail by the surveyors will be undertaken, no assessment can be regarded as absolute. The proposed future demolition of structures may reveal incidents of asbestos or other hazardous materials in-situ which were concealed and were not otherwise accessible for inspection.

Where limitations on access or restriction to sampling occur, Coffey Environments will document these areas or materials.

This assessment will involve the representative sampling and documentation of suspected hazardous materials and visual or analytical identification. Only 'typical' suspected occurrences will be inspected and sampled, e.g. fire-doors and capacitors in fluorescent light fittings.

Appendix A Photographs

**Redfern Courthouse & Police Station
103-105 Redfern Street. Redfern NSW**

Photograph 1: Roof lining beneath roof tiles located North elevation, lower gable roof.



Photograph 2: Gable lining located at upper gable roof located on North Elevation.



Photograph 3: Moulded fibre cement cable pit within ground, located near front entrance.



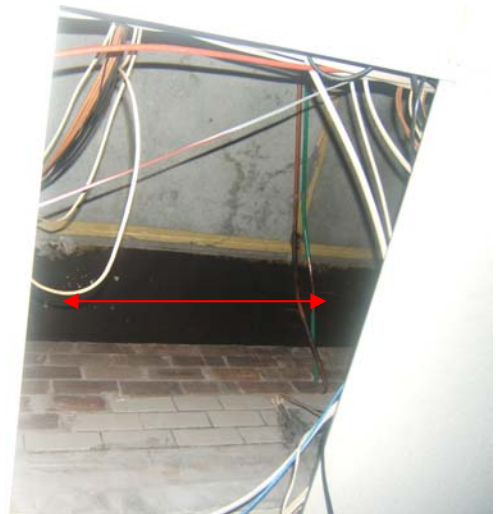
Photograph 4: Eaves lining surrounding the courtyard area.



Photograph 5: Ceiling above suspended ceiling within "small exhibits" room.



Photograph 6: Waterproof membrane on east side only of ground floor within ceiling space.



Photograph 7: Ceiling lining in the Men's Amenities located on first floor.



Photograph 8: White paint work to the window frames located on south elevations.



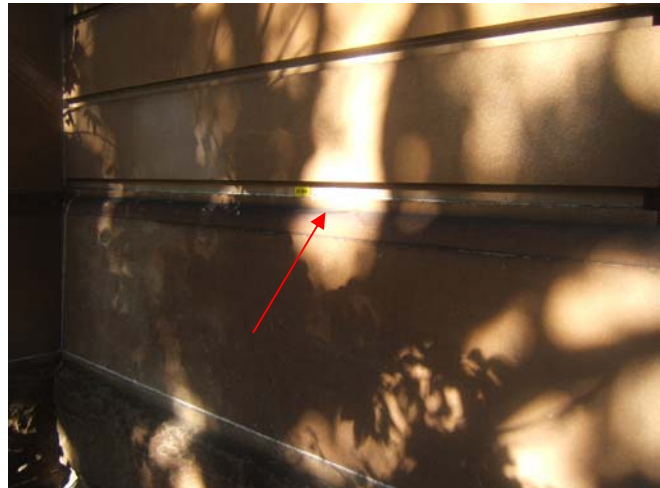
Photograph 9: Cream paint work to the ceiling located in "Interview & Breath Analysis" room, above suspended ceiling tiles.



Photograph 10: Eaves lining located South elevation of "Magistrates chamber" room's



Photograph 11: External Sealant (white) between brick work predominantly on North elevation.



Photograph 12: Ceiling lining located between "male staff" & "records room".



Photograph 13: Ceiling lining located internal "Female staff", toilet section.



Photograph 14: Fibre Cement Sheet wall lining within Electrical cupboard.



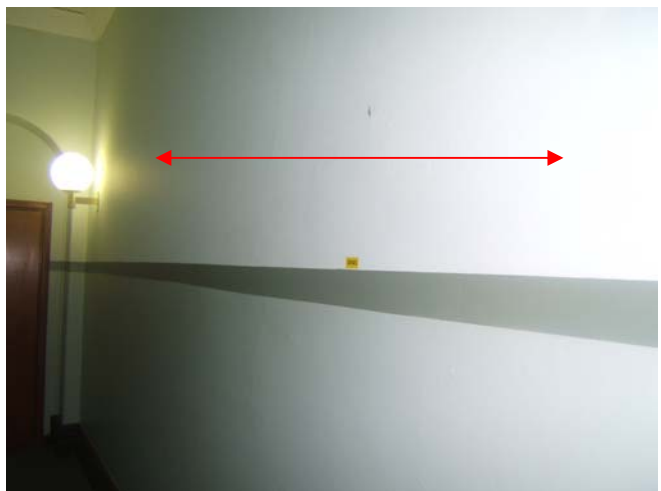
Photograph 15: SMF dust on ceiling within western and eastern wing of the courthouse.



Photograph 16: External paint work to window frames located along perimeter of courtroom.



Photograph 17: Internal paint work to walls throughout corridors of main courthouse building.



Photograph 18: Internal paint work to walls within electrical cupboard.



Photograph 19: Internal paint work to walls in DV room.



Appendix B

Legislative Requirements

**Redfern Courthouse & Police Station
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Appendix C
Certificate(s) of Analysis

**Report Type (ESA)
Site Name and Suburb**