




Appendix 1 Photograph(s) of Non-ACM

Sample Number	Location Description	Material	Photograph(s)
O1794	Kitchen area where cabinet had been removed	Wall sheet	
O1794	Kitchen area where cabinet had been removed	Wall sheet	

Sample Number	Location Description	Material	Photograph(s)
VA1	Kitchen flooring adjacent to where cabinets were removed	Masonite and timber floor boards	

Appendix 2 Fibre Identification Certificate of Analysis



Fibre Identification Certificate of Analysis					
Report Number: T-06942		Date of Report: 6/12/2018		Samples Taken by: [Redacted]	
R.E. Job Number: 7335471				Page 1 of 1	
Client Details			Laboratory Details		
Client: ACT Property Group (Schools)			Address: 140 Gladstone Street, Fyshwick, Canberra 2609		
Attention: ACT Response Centre			Manager: [Redacted]		
Received: 06/12/2018			Telephone: 02 6239 5656		
Client Reference: Yarralumla Primary School			Fax: 02 6239 5669		
Email:			Email: hazmat@robsonenviro.com.au		
Test Specification(s) Employed: AS4964 (2004) & In-House Procedure No.2					
Methodology Summary					
<p>Samples of material are examined to determine the presence of asbestos fibres using AS4964 (2004) & In-House Procedure No.2 i.e. Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by Polarised Light Microscopy (PLM) in conjunction with Dispersion Staining (DS). Unequivocal identification of asbestos minerals present is made by assessing fibre properties to see whether the values are typical and consistent with published data. This provides a reasonable degree of certainty to determine whether a fibre under investigation is asbestiform or not. Careful application of the test procedure provides sufficient diagnostic clues to allow unequivocal identification of asbestos types, and so, to determine whether a sample contains asbestos or not. If sufficient diagnostic clues are absent, then positive identification of fibrous asbestos is not possible.</p>					
Client Supplied Samples					
<p>Robson Environmental is not responsible for the accuracy or competence of sampling carried by third parties. Sample location(s) and/or sample type(s) of third party samples delivered to the laboratory are given by the client at the time of delivery. Under these circumstances, Robson Environmental cannot be held responsible for the interpretation of the results shown. When the test certificate indicates that bulk samples were taken by the client, they are outside the scope of our NATA Accreditation for sampling. Robson Environmental takes responsibility of information reported only when a staff member takes the sample(s).</p>					
Reporting of Results					
<p>'Asbestos Detected': Asbestos detected by Polarised Light Microscopy (PLM), including Dispersion Staining (DS)</p> <p>'No Asbestos Detected': No Asbestos detected by Polarised Light Microscopy (PLM), including Dispersion Staining (DS)</p> <p>'UMF Detected': Mineral fibres of unknown type detected by Polarised Light Microscopy (PLM), including Dispersion Staining (DS). Confirmation by another independent analytical technique may be necessary.</p> <p>"Hand-picked" refers to small discrete amounts of asbestos unevenly distributed in a large body of non-asbestos material.</p> <p>Non asbestos fibres such as "Organic" and "Synthetic Mineral Fibres" detected in samples will be marked with an *. Please refer to non asbestos fibre table beneath main table.</p> <p>Limit of Detection & Reporting Limit</p> <p>Known limitations of the test procedure using Polarised Light Microscopy (PLM) are:</p> <ul style="list-style-type: none"> PLM is a qualitative technique only; It does not cover identification of airborne or water-borne asbestos; The less encountered asbestos mineral fibres actinolite, anthophyllite and tremolite exhibit a wide range of optical properties that preclude unequivocal identification by PLM and Dispersion Staining (DS). Thus, the method is used to positively identify the three major asbestos minerals: amosite ("brown"), chrysotile ("white") and crocidolite ("blue"); Valid identification requires that the sample material contains a sufficient quantity of the unknown fibres in excess of the practical detection limit used (in this case, PLM and Dispersion Staining, which has a calculated practical detection limit of 0.01-0.1% equivalent to 0.1-1g/kg (AS4964-2004:App. A4). <p>Results relate only to the sample(s) submitted for testing.</p> <p>Test report must not be reproduced except in full.</p> <p>Accredited for compliance with ISO/IEC 17025</p>					

Sample No.	Client Ref.	Location	Physical Structure	Sample Description	Analysis of Fibrous Content
O1794		Kitchen area where cabinet had been removed	Wall sheet	<1g	No Asbestos Detected*

Non Asbestos Fibre Table

* O1794 - Organic Fibres Detected



Robson Approved Identifier



No. 3181

Accredited for compliance with ISO/IEC 17025



Robson Approved Signatory

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards

Robson Environmental Pty Ltd ~ ABN: 55 008 660 900 ~ www.robsonenviro.com.au
p: 02 6239 5656 ~ f: 02 6239 5669 ~ admin@robsonenviro.com.au
PO Box 112 Fyshwick ACT 2609 ~ 140 Gladstone Street Fyshwick ACT 2609

Client: ACT Property Group (Schools) 7335471_T-06942_Yarralumla Primary School-Fibre Identification Certificate of Analysis_20181206








Lead Paint Assessment

T-01035 Yarralumla Primary & Preschool

Client: ACT Property Group

Survey Date: 23/04/2019

Certificate of Approval for Issue of Documents

Document Name	HMR319 – Lead Paint Assessment – Swab and Laboratory Analysis		
Report Issue Date	01/05/2019	Job Number	T-01035
Client	ACT Property Group	Client Representative	Evan Byrne
Sample Testing and Report Preparation	Reviewed	Approved	
 Robson Environmental Pty. Ltd.	 Robson Environmental Pty. Ltd.	 Robson Environmental Pty Ltd	

Copyright & Intellectual Property Statement

1. Robson owns (and will continue to own) all Intellectual Property Rights (including copyright) in this Report.
2. The person commissioning this Report (the Client) is entitled to retain possession of the Report upon payment of all sums owing to Robson in full or upon Robson agreeing to release the Report (in their absolute discretion and upon terms they think fit).
3. The Client must only use the Report for the purpose for which it was commissioned.
4. The Client may photocopy or reproduce all or any part of the Report provided that reproduction is to fulfil the purpose for which the Report was commissioned.
5. The Client must not otherwise publish the Report (or any advice given by Robson) to the public or any third parties without Robson's prior written consent. Robson will not unreasonably withhold consent but may take into account the reasons for which the Report (or advice) was commissioned and the consequences of the disclosure or potential reliance that will be placed on the Report by third parties.
6. The Client agrees that no party (other than the Client) can rely upon the Report or any advice given by Robson.
7. The Client indemnifies Robson against any costs, losses or damage suffered or incurred (including legal costs on a solicitor and own client basis) arising out of or as a consequence of the Client's breach of these provisions.
8. This report is solely for the use of the client and may not contain sufficient information for purposes of other parties, or for other uses. Any reliance on this report by third parties shall be at such party's own risk.
9. 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 Robson Environmental Pty Ltd.



1 Introduction

Lead (Pb) paint is defined by the Australian Standard AS 4361.2 – 2017 (*Guide to hazardous paint management Part 2: Lead paint in residential, public and commercial buildings*) as a paint or component coat of a paint system containing lead or lead compounds, in which the lead content (calculated as lead metal) is in excess of 0.1% by weight of the dry film as determined by laboratory testing.

Analytical values of $\leq 0.1\%$ Pb allow the sample to be categorised as being lead free paint.

It should be noted that this Standard relates only to the removal of lead paint. In the ACT and NSW, building waste which is painted with lead paint may be disposed of as general demolition waste regardless of the quantity or percentage of lead paint.

Lead in paint (as lead carbonate) is found extensively in homes and commercial and industrial buildings built pre-1970. Although Australian industry has generally phased out lead in paint, levels of below 1 percent are still permitted and industrial application of high-lead paint to residential/commercial dwellings may still continue (Standards Australia, 2017).

Lead-based paint may be a health issue if it becomes mobile in the environment or if ingested. For this reason, sealing or safe removal of paint is strongly recommended, particularly where it is flaking or exposed to the elements.

2 Survey Methodology

Robson Environmental Pty Ltd conducted an assessment for lead-based paint for ACT Property Group at Yarralumla Primary & Preschool Loftus Street Yarralumla ACT 2600 on 23 April 2019.

The paint samples were qualitatively tested using 3M™ LeadCheck™ Swabs. These are USA EPA-recognised for the determination of lead-based paint with a 600ppm lower detection limit. This is equivalent to 0.06% and is therefore appropriate for the categorisation of tested surfaces as being lead free paint.

If the 3M™ LeadCheck™ Swabs detected the presence of lead, paint samples of the relevant paint systems were collected. These samples were sent for quantitative analysis for lead concentration following the method stated in Appendix A of AS/NZS 4361.2:2017.

The sampling criteria provided below is taken from Section A4 Sampling Strategy clauses (a, b, c);

- (a) An adequate number of sample sites should be analysed to properly characterise the paint systems present on site.
- (b) For small surfaces such as architraves, windows and doors and cupboards, a **single** sample may suffice.
- (c) For large, uniformly painted surface areas such as the exterior facade of high rise buildings, or for interior walls and ceilings of large rooms, and where laboratory testing is employed, **composite** samples should be taken from three separate locations in 10m² sections.



A representative sample was collected from each location and individual analyses reported. All samples were individually sealed and double bagged, and couriered under Chain of Custody (COC) documentation to [REDACTED]

The following criteria were considered by a Licensed Asbestos Assessor (or competent person) when assessing the risk associated with lead paint systems. This qualitative assessment determines the Risk Rating. These are shown in Table 1.

- Location of the lead paint system
- Surface area of the lead paint system
- Condition of the lead paint system
- Accessibility of the lead paint system
- Likelihood of ingesting and/or inhaling lead paint particles

Table 1: Risk Rating Levels and Action Plan

Risk Rating Level	Action Plan
High (H)	Lead is present in paint that is in very poor condition (i.e. bad cracking, flaking, chalking and peeling observed). It covers a large surface area and/or is on a surface that is easily accessible to children. It may present a health hazard with minor disturbance. Action should be taken immediately to reduce exposure risk.
Medium (M)	Lead is present in paint that is in average condition (i.e. some cracking, flaking, chalking and peeling observed). It covers a small surface area and/or is on a surface that is not easily accessible to children. It may present a health hazard with moderate disturbance. Action should be taken as soon as practicable to reduce exposure risk.
Low (L)	Lead is present in paint that is still in good condition (i.e. no cracking, flaking, chalking or peeling observed) and is not a friction or impact surface. It is not likely to present a health hazard unless significantly disturbed. Ongoing actions to maintain the lead paint system in good condition and to check it periodically to ensure a low exposure risk.
Nil (N)	Lead was not detected in paint system being assessed. No action required.



3 Results and Recommendations

The quantitative laboratory results analysed from the samples collected on 23 April 2019 show that seven lead paint systems contain lead concentrations in excess of the 0.1% by weight threshold. These paints are required to be managed as lead paint so risk can be minimised. Please note that AS/NZS 4361.2 states that if *'one or more tests from a building or portion of a building indicate that lead is present, the paint should be treated as lead paint'*.

The results also show that eight lead paint systems may be considered lead-free because the percentage of lead detected in the paint samples sent for laboratory analysis were less than or equal to the 0.1% by weight threshold. This shows that the concentration is below the definition for lead paint and the paint systems pose no risk.

Table 1 presents lead composition in paints, with results shown as a 'yes' or 'no' for the presence of lead within the paint samples tested as well as the exact percentage of lead determined through laboratory analysis. Recommendations suitable for the relevant lead paint system risk rating are also explained here. Photographs of samples are included in Appendix 1 and the full laboratory report is in Appendix 2.


Table 1: Lead Composition in Paint by Qualitative and Quantitative Testing

Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Percentage of Lead (%w/w)	Risk Rating	Recommendations
Pb01	Yarralumla Primary School Main Building – Internal window frames, door frames and skirting boards throughout	White	Yes	0.29	L	Ongoing preventative action should be planned. This includes: <ul style="list-style-type: none"> • Maintain the lead paint system in good condition. • Check it periodically to ensure a low exposure risk (i.e. no cracking, flaking, chalking or peeling observed and that it is not a friction or impact surface). • Review and update the risk rating appropriately.
Pb02	Yarralumla Primary School Main Building – Internal radiator heating pipes throughout	White	No	0.090	N	No action required.
Pb03	Yarralumla Primary School Main Building – Internal Cleaners'/Bathroom masonry walls	Grey	Yes	0.19	M	Action should be taken as soon as practicable to reduce exposure risk. This includes: <ul style="list-style-type: none"> • Remediate using method detailed in this report.



Pb04	Yarralumla Primary School Main Building – Internal Cleaners'/Bathroom walls	Dark Blue	Yes	0.82	L	<p>Ongoing preventative action should be planned. This includes:</p> <ul style="list-style-type: none"> • Maintain the lead paint system in good condition. • Check it periodically to ensure a low exposure risk (i.e. no cracking, flaking, chalking or peeling observed and that it is not a friction or impact surface). • Review and update the risk rating appropriately.
Pb05	Yarralumla Primary School Main Building – Internal Cleaners'/Bathroom riser walls and pipes	Spearmint/Green	Yes	0.26	L	<p>Ongoing preventative action should be planned. This includes:</p> <ul style="list-style-type: none"> • Maintain the lead paint system in good condition. • Check it periodically to ensure a low exposure risk (i.e. no cracking, flaking, chalking or peeling observed and that it is not a friction or impact surface). • Review and update the risk rating appropriately.
Pb06	Yarralumla Primary School Main Building – Internal brick walls throughout	White	No	<0.005	N	No action required.



Pb07	Yarralumla Primary School Main Building – Internal masonry walls throughout	Yellow	No	<0.005	N	No action required.
Pb08	Yarralumla Primary School Main Building – Exterior windows and infill panels	Green	Yes	0.32	M	Action should be taken as soon as practicable to reduce exposure risk. This includes: <ul style="list-style-type: none"> • Remediate using method detailed in this report.
Pb09	Yarralumla Primary School Main Building – Exterior down pipes and fascias	Grey	No	0.1	N	No action required.
Pb10	Yarralumla Primary School Main Building – Exterior timber eaves	Grey	No	<0.005	N	No action required.
Pb11	Yarralumla Primary School Main Building – External window frames and doors	Grey	No	0.05	N	No action required.



Pb12	Yarralumla Gambarri and Preschool – Exterior window frames and doors	White	Yes	0.13	H	Action should be taken immediately to reduce exposure risk. This includes: <ul style="list-style-type: none"> Remediate using method detailed in this report.
Pb13	Yarralumla Primary School After School Care – Exterior window frames and eaves	White	Yes	0.28	H	Action should be taken immediately to reduce exposure risk. This includes: <ul style="list-style-type: none"> Remediate using method detailed in this report.
Pb14	Yarralumla Preschool – Internal roof support beam	Yellow	No	<0.005	N	No action required.
Pb15	Yarralumla Preschool – Internal and external window frames, pergola frame and doors	Grey	No	<0.005	N	No action required.



4 Remediating Surfaces Containing Lead Paint

The main exposure risk associated with lead paint is when it becomes an airborne dust or fume. When paint deteriorates through chipping, cracking, bubbling and flaking, it is not becoming an airborne dust and cannot be easily inhaled.

The key to safely remediating surfaces containing lead paint is to prevent the generation of dust and fume. As a result, sanding, buffing, grinding, burning and wet/dry abrasive blasting is not appropriate. Abrasive blasting is defined as propelling a stream of abrasive material at high speed against a surface using compressed air, liquid, steam, centrifugal wheels or paddles to clean, abrade, etch or otherwise change the original appearance or condition of the surface.

Safe Work Australia prohibits abrasive blasting of lead materials and lead paint systems above a concentration of 0.1% by weight. Refer to <https://www.safeworkaustralia.gov.au/chemicals>.

To safely remediate surfaces containing lead paint, the following method is acceptable:

1. If indoors, shut all windows and doors to enclose the work area and place heavy duty plastic sheets on the floor to ease clean up.
2. If outdoors, plan your work for a day that is not windy and when rain is not predicted. Cover the ground below the painted surface with heavy duty plastic sheeting. For example, strips that are two metres wide would be suitable for the external wall of a house.
3. Workers are to:
 - a. Be clean shaven.
 - b. Wear appropriate respiratory protection. A minimum of P1 is essential but P2 respirators (i.e. disposable masks) are preferred.
 - c. Wear gloves.
 - d. Wear a hat to prevent lead paint chips from getting stuck in hair and being accidentally removed from the area.
 - e. Wear disposable coveralls to prevent lead paint chips from getting into pockets, stuck to sweaty skin or getting inside work shirts, etc. and being accidentally removed from the area. Note: Workers need to be aware of and prevent heat-related illness, maintain good hydration, take rest breaks in the shade, have cool drinking water available and avoid working during the hottest parts of the day if wearing disposable coveralls.
 - f. Wash hands and face before eating, drinking and smoking to prevent hand-to-mouth cross contamination.
4. Manually scrape all loose paint off the surface so the flakes fall on the plastic sheets. Note: no grinding, buffing, sanding, abrasive blasting, burning, etc.
5. When complete, fold up the plastic sheets to collect all the paint scrapings and dispose of them appropriately.
6. The surface can be repainted to bind the remaining lead paint to the structure. Several coats may be required to adhere all old paint to the structure again.
7. Next, the paint flakes that are already on the ground can be addressed:
 - a. Regarding sealed surfaces, such as concrete, bitumen, timber or tiles:
 - i. Paint chips can be removed with a HEPA vacuum cleaner.



- ii. The vacuum bag contents should then be carefully transferred to a heavy duty plastic bag to prevent dust from being released. Note: do not overfill the bags as they will become a manual handling risk and could tear open under the weight.
 - iii. Dispose of the waste appropriately.
- b. Regarding unsealed surfaces, such as dirt, rocks or grass:
 - i. Wet the ground around the surface with a fine mist (not a heavy spray) or a diluted PVA glue solution to prevent dust from being generated in the next steps.
 - ii. Use a shovel to manually scrape approximately 10mm to 15mm of loose dirt and rocks from the top surface of the ground and collect it in heavy duty plastic bags. Note: do not overfill the bags as they will become a manual handling risk and could tear open under the weight.
 - iii. Dispose of the waste appropriately.
- 8. Continue to inspect the condition of the paint every 5 years to assess whether further deterioration has occurred.
- 9. Repeat this process whenever the paint system deteriorates to a point where remediation is required.
- 10. In the event that a structure containing a lead paint system is nominated for demolition:
 - a. Refer to the additional recommendations shown in the next section of this report.
 - b. Plastic sheets are unnecessary as they will get easily ripped up and damaged.
 - c. Workers need to be clean shaven and wear respiratory protection, gloves and exercise proper personal hygiene during the period they are handling lead painted materials.
 - d. Personal Protective Equipment (PPE) requirements can be reassessed once all the components containing a lead paint system are gone and only non-lead paint systems remain.
 - e. After the entire structure is gone, the ground will need to be scraped back to collect all residual paint flakes as described above.



5 Additional Recommendations for the Demolition and Disposal of Building Waste Containing Lead Paint

In the ACT & NSW, building waste painted with lead paint is classified as general building waste and may be disposed of without removing the lead paint. As a result, it is recommended that all materials that tested positive for the presence of lead paint be disposed of as general building waste.

The mechanical demolition of structures and objects painted with lead paint do not fall under the category of a 'lead process' as defined by the ACT Work Health and Safety Regulations 2011 (Section 392) so the requirements of Part 7.2 in the Regulations do not apply. Refer to <https://www.legislation.act.gov.au/View/sl/2011-36/current/PDF/2011-36.PDF>.

Only if you are intending to remove the paint from the structures/objects so they may be reused, recycled or refurbished, should the lead paint be removed in strict accordance with the methods specified in AS/NZS 4361.1 and AS/NZS 4361.2.

Due to similarities between environmental cleaning methods for lead paint and asbestos containing materials, it is recommended that a Class B licensed Asbestos Removalists be used to remove lead paint from materials being reused, recycled or refurbished.

Please note that it is not recommended to weld, cut or clean lead painted metal structures/objects using flame (i.e. electric arc, oxy gas, oxyacetylene, plasma arc, etc.) or abrasive cutting equipment that creates heat from friction (i.e. grinders, etc.) because it will burn the paint and generate fume containing lead. This falls under the definition of a 'lead process' as defined by the ACT Work Health and Safety Regulations 2011 (Section 392(i)) and the requirements of Part 7.2 of the Regulations apply.

It is recommended that only mechanical cutting methods that do not burn the paint be used (i.e. demolition shears) to avoid the requirements of Section 7.2 of the Regulations. Manually unbolting the pieces can also be done but this would be fairly time-consuming and heat should not be applied to stuck nuts/bolts as it will burn the lead paint.



6 Limitations



While Robson Environmental has taken all care to ensure that this report includes the most accurate information available, the report and any risk assessment presented is based on the information obtained by Robson Environmental at the time of sampling. Any variation in environment, activities, methods, practices, products, or equipment used may change exposures to hazards, invalidating the presented risk assessment. Robson recommends that risks be re-assessed prior to making any changes to the aforementioned factors.



The findings contained within this report are developed from the interpretation of the results of specific sampling methods used in accordance with generally accepted practices and standards, based on the current state of knowledge. To the best of Robson Environmental's knowledge, our assessment of the data represents a reasonable interpretation of the general conditions, and subsequent risk at the time of sampling. Should you have any questions or require further information please contact Robson Environmental.



7 References



- Buehler, S & Rhoda, D 2012, '3M™ LeadCheck™ Swabs qualitative spot test kit for lead in paint', Battelle.
<https://www.epa.gov/sites/production/files/documents/3M-leadcheck-report.pdf>
- Standards Australia, 2017, *AS/NZS4361.1-2017: Guide to hazardous paint management, Part 1: Lead and other hazardous metallic pigments in industrial applications*, Standards Australia, Australia.
- Standards Australia, 2017, *AS/NZS4361.2-2017: Guide to hazardous paint management, Part 2: Lead paint in residential, public and commercial buildings*, Standards Australia, Australia.



Appendix 1 – Photographs of Lead and Lead-Free Paint Systems



Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb01	Yarralumla Primary School Main Building – Internal window frames, door frames and skirting boards throughout	White	Yes	
Pb02	Yarralumla Primary School Main Building – Internal radiator heating pipes throughout	White	No	



Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb03	Yarralumla Primary School Main Building – Internal Cleaners’/Bathroom masonry walls	Grey	Yes	
Pb04	Yarralumla Primary School Main Building –Internal Cleaners’/Bathroom walls	Dark Blue	Yes	


Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb05	Yarralumla Primary School Main Building – Internal Cleaners’/Bathroom riser walls and pipes	Spearmint/Green	Yes	
Pb06	Yarralumla Primary School Main Building – Internal brick walls throughout	White	No	

Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb07	Yarralumla Primary School Main Building –Internal masonry walls throughout	Yellow	No	
Pb08	Yarralumla Primary School Main Building – Exterior windows and infill panels	Green	Yes	

Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb09	Yarralumla Primary School Main Building – Exterior down pipes and fascias	Grey	No	
Pb10	Yarralumla Primary School Main Building – Exterior timber eaves	Grey	No	

Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb11	Yarralumla Primary School Main Building – External window frames and doors	Grey	No	
Pb12	Yarralumla Gambarri and Preschool – Exterior window frames and doors	White	Yes	

Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb13	Yarralumla Primary School After School Care – Exterior window frames and eaves	White	Yes	
Pb14	Yarralumla Preschool – Internal roof support beam	Yellow	No	

Sample ID	Sample Location	Paint Colour	Classified as Lead Paint?	Photograph(s)
Pb15	Yarralumla Preschool – Internal and external window frames, pergola frame and doors	Grey	No	



Appendix 2 - Laboratory Results

CERTIFICATE OF ANALYSIS 216357

Client Details

Client	Robson Environmental Pty Ltd
Attention	[REDACTED]
Address	PO Box 112, Fyshwick, ACT, 2609

Sample Details

Your Reference	<u>T-01035</u>
Number of Samples	15 Paint
Date samples received	29/04/2019
Date completed instructions received	29/04/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	30/04/2019
Date of Issue	30/04/2019
NATA Accreditation Number	[REDACTED] This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

[REDACTED]

Authorised By

[REDACTED]

[REDACTED]



Page | 1 of 7



Client Reference: T-01035

Lead In Paint						
Our Reference		216357-1	216357-2	216357-3	216357-4	216357-5
Your Reference	UNITS	Pb01	Pb02	Pb03	Pb04	Pb05
Date Sampled		23/04/2019	23/04/2019	23/04/2019	23/04/2019	23/04/2019
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	29/04/2019	29/04/2019	29/04/2019	29/04/2019	29/04/2019
Date analysed	-	30/04/2019	30/04/2019	30/04/2019	30/04/2019	30/04/2019
Lead in paint	%w/w	0.29	0.090	0.19	0.82	0.28

Lead in Paint						
Our Reference		216357-6	216357-7	216357-8	216357-9	216357-10
Your Reference	UNITS	Pb06	Pb07	Pb08	Pb09	Pb10
Date Sampled		23/04/2019	23/04/2019	23/04/2019	23/04/2019	23/04/2019
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	29/04/2019	29/04/2019	29/04/2019	29/04/2019	29/04/2019
Date analysed	-	30/04/2019	30/04/2019	30/04/2019	30/04/2019	30/04/2019
Lead in paint	%w/w	<0.005	<0.005	0.32	0.01	<0.005

Lead in Paint						
Our Reference		216357-11	216357-12	216357-13	216357-14	216357-15
Your Reference	UNITS	Pb11	Pb12	Pb13	Pb14	Pb15
Date Sampled		23/04/2019	23/04/2019	23/04/2019	23/04/2019	23/04/2019
Type of sample		Paint	Paint	Paint	Paint	Paint
Date prepared	-	29/04/2019	29/04/2019	29/04/2019	29/04/2019	29/04/2019
Date analysed	-	30/04/2019	30/04/2019	30/04/2019	30/04/2019	30/04/2019
Lead in paint	%w/w	0.05	0.13	0.28	<0.005	<0.005

Page | 2 of 7



Client Reference: T-01035

Method ID	Methodology Summary
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and/or CVAAS.





Client Reference: T-01035

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	POL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			29/04/2019	8	29/04/2019	29/04/2019		29/04/2019	
Date analysed	-			30/04/2019	8	30/04/2019	30/04/2019		30/04/2019	
Lead in paint	%ww	0.005	Metals-004	<0.005	8	0.32	0.59	59	104	

QUALITY CONTROL: Lead in Paint					Duplicate			Spike Recovery %		
Test Description	Units	POL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				12	29/04/2019	29/04/2019			
Date analysed	-				12	30/04/2019	30/04/2019			
Lead in paint	%ww	0.005	Metals-004		12	0.13	0.12	8		

(Page 4 of 7)



Client Reference: T-01035

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

PAGE | 5 of 7



Client Reference: T-01035

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, [REDACTED] are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Page | 6 of 7



Client Reference: T-01035

Report Comments

Lead in Paint - The duplicate result is greater than the acceptable RPD. Re-analysis indicates possible sample heterogeneity.

Page | 7 of 7