



# Hazardous Building Materials Assessment

28 Spruce Street,  
Moose Lake, Manitoba

Prepared for:

## Royal Canadian Mounted Police

1091 Portage Avenue  
Winnipeg, MB R3C 3K2

Attention: Jeff Precourt  
Senior Asset Manager

July 27, 2018

Pinchin File: 224301



**Issued to:** Royal Canadian Mounted Police  
**Contact:** Jeff Precourt  
Senior Asset Manager  
**Issued on:** July 27, 2018  
**Pinchin File:** 224301  
**Issuing Office:** 54 Terracon Place,  
Winnipeg, MB R2J 4G7  
**Primary Pinchin Contact:** Rodney Legault, C.E.T., EP  
Operations Manager  
204.452.0983 ext. 2251  
[rlegault@pinchin.com](mailto:rlegault@pinchin.com)

---

Author: 

---

Ken Brydges, C.E.T., LEED AP  
Project Manager  
204.452.0983 ext. 2242  
[kbrydges@pinchin.com](mailto:kbrydges@pinchin.com)

Reviewer: 

---

Rodney Legault, C.E.T., EP  
Operations Manager  
204.452.0983 ext. 2251  
[rlegault@pinchin.com](mailto:rlegault@pinchin.com)



## EXECUTIVE SUMMARY

Royal Canadian Mounted Police (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Old RCMP Detachment located at 28 Spruce Street, Moose Lake, Manitoba. Pinchin performed the assessment on July 10, 2018.

The objective of the assessment was to identify specified hazardous building materials in preparation for building demolition. The results of this assessment are intended for use with a properly developed scope of work and performance specification.

The assessed area consisted of the entire building.

## SUMMARY OF FINDINGS

Asbestos: Asbestos-containing cement board is present as wall and ceiling finish within the furnace room.

Lead: Lead was confirmed present in select paints/surface coatings and is present in emergency light batteries.

Silica: Crystalline silica is present in concrete.

Mercury: Mercury vapour is present in fluorescent lamps.

Polychlorinated Biphenyls (PCBs): The building has not been comprehensively re-lamped therefore a percentage of light ballast are suspect to be pre 1979 and contain PCBs.

Mould: 30 square feet (SF) of mould-impacted drywall wall and wood ceiling finish were observed present within the entrance and corridor.

## SUMMARY OF RECOMMENDATIONS

The following is a summary of significant recommendations; refer to the body of the report for detailed recommendations:

1. Remove and properly dispose of asbestos-containing materials prior to demolition;
2. Remove and properly dispose of PCB ballasts and mercury-containing items prior to demolition or if disturbed by the planned renovation work; and
3. Follow appropriate safe work procedures when handling or disturbing lead, silica and mould.

Please refer to Section 4.0 of this report for detailed recommendations regarding demolition activities.

*This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.*



## TABLE OF CONTENTS

1.0	INTRODUCTION AND SCOPE .....	1
1.1	Scope of Assessment.....	1
2.0	BACKGROUND INFORMATION .....	1
2.1	Existing Reports.....	2
3.0	FINDINGS .....	2
3.1	Asbestos .....	2
3.2	Lead.....	4
3.3	Silica .....	5
3.4	Mercury.....	5
3.5	Polychlorinated Biphenyls .....	5
3.6	Mould.....	6
4.0	RECOMMENDATIONS.....	6
4.1	General .....	6
4.2	Building Demolition or Renovation Work.....	6
5.0	TERMS AND LIMITATIONS .....	8
6.0	REFERENCES.....	8

## APPENDICES

APPENDIX I-A	Asbestos Analytical Certificates
APPENDIX I-B	Lead Analytical Certificates
APPENDIX II	Methodology



## 1.0 INTRODUCTION AND SCOPE

Royal Canadian Mounted Police (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Old RCMP Detachment located at 28 Spruce Street, Moose Lake, Manitoba.

Ken Brydges, C.E.T., LEED AP performed the assessment on July 10, 2018. The surveyor was accompanied by Jeff Precourt during the assessment. The building was unoccupied at the time of the assessment.

The objective of the assessment was to identify specified hazardous building materials in preparation for building demolition. This assessment is intended to be used for pre-demolition purposes only. The results of this assessment are intended for use with a properly developed scope of work and performance specification.

### 1.1 Scope of Assessment

The assessment was performed to establish the location and type of specified hazardous building materials incorporated in the structure(s) and its finishes. The assessed area consisted of all parts of the building.

For the purpose of the assessment and this report, hazardous building materials are defined as follows:

- Asbestos;
- Lead;
- Silica;
- Mercury;
- Polychlorinated Biphenyls (PCBs); and
- Mould.

## 2.0 BACKGROUND INFORMATION

Building Description Item	Details
Building Use	Vacant, Former RCMP Detachment
Number of Floors/Levels	Single storey plus slab on grade
Structure	Wood and concrete
Exterior Cladding	Metal cladding
HVAC	Forced air, furnace



Building Description Item	Details
Roof	Tin, asphalt shingles
Flooring	Vinyl sheet flooring
Interior Walls	Drywall and wood
Ceilings	Drywall and wood

## 2.1 Existing Reports

No existing reports were provided for reference.

## 3.0 FINDINGS

### 3.1 Asbestos

#### 3.1.1 Suspect Building Materials Not Found

The following types of building materials may historically contain asbestos but were not observed in the building and are not discussed in the report findings:

- Spray-applied fireproofing or thermal insulation;
- Texture finishes (acoustic/decorative);
- Vermiculite;
- Acoustic ceiling tiles;
- Plaster; and
- Vinyl floor tiles.

#### 3.1.2 Thermal Systems Insulation (TSI)

##### 3.1.2.1 Pipe Insulation

Pipes are either uninsulated or insulated with non-asbestos Armaflex.

##### 3.1.2.2 Duct Insulation

Insulated ducts were not present.

##### 3.1.2.3 Mechanical Equipment Insulation

Mechanical equipment is either uninsulated or insulated with non-asbestos fibreglass.

### 3.1.3 *Drywall Joint Compound*

Drywall (gypsum board) and drywall joint compound is present as wall and ceiling finish throughout the building. Based on the results of the testing (Samples 0001A-E), the drywall joint compound does not contain asbestos.

### 3.1.4 *Vinyl Sheet Flooring*

Asbestos-containing vinyl sheet flooring is not present. The vinyl sheet flooring was determined to be non-asbestos by analysis of samples 0003A-C or by the lack of paper backing.



Photo #1 - Non-asbestos vinyl sheet flooring (Samples 0003A-C).



Photo #2 - Non-asbestos poured vinyl flooring with no backing.

### 3.1.5 *Roofing Products*

The roof of the building is covered with non-asbestos asphalt shingles (Samples 0005A-C).



Photo #3 - Non-asbestos asphalt shingles.

### 3.1.6 *Transite Cement*

160 SF of cement board containing chrysotile and amosite asbestos is present as wall and ceiling finish within the furnace room (Samples 0002A-C). Cement board is a non-friable material.



Photo #4 – Asbestos-containing cement board within the furnace room.

### 3.1.7 *Presumed Asbestos Materials*

A number of materials which might contain asbestos were not sampled during the assessment due to limitations in scope and methodology. Where present, these materials must be presumed to be an asbestos material and are best sampled during project planning and preparation of contract documents for their removal. Materials presumed to contain asbestos include:

- Concrete floor levelling compound;
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring; and
- Mechanical packing, ropes and gaskets.

## 3.2 **Lead**

### 3.2.1 *Paints and Surface Coatings*

A total of 4 paint samples were collected from interior and exterior painted finishes. The following table summarizes the analytical results for paints sampled and their locations:

Sample Number	Colour, Substrate Description	Locations	Lead (%)
L0001	Blue paint, interior metal doors and frames	Throughout building	<0.0067

Sample Number	Colour, Substrate Description	Locations	Lead (%)
L0002	Beige paint, interior wood and drywall	Throughout building	<0.0076
L0003	Blue paint, metal cladding	Exterior of building	0.06
L0004	Brown paint, metal doors and frames	Throughout building	<0.0089

The exterior blue paint present on metal cladding containing elevated levels of lead was found to be in good condition and not flaking, peeling or delaminating.

### 3.2.2 Lead Products and Applications

Lead-containing batteries are present in emergency lighting.

### 3.2.3 Presumed Lead Materials

Lead may be present in a number of materials which were not assessed and/or sampled. The following materials, where found, should be considered to contain lead.

- Electrical components, including wiring connectors, grounding conductors, and solder.

## 3.3 Silica

Crystalline silica is a presumed component of the following materials where present in the building:

- Poured or pre-cast concrete.

## 3.4 Mercury

### 3.4.1 Lamps

Mercury vapour is present in fluorescent lamps where present in the assessed area.

### 3.4.2 Mercury-Containing Devices

Thermostats inspected did not contain liquid mercury ampules.

## 3.5 Polychlorinated Biphenyls

The building has not been comprehensively re-lamped with new energy efficient light ballasts and lamps, and as such, a percentage of light ballasts will be pre-1979 and contain PCBs.

### 3.5.1 Transformers

Transformers were not found during the assessment.

### 3.6 Mould

The following building materials were found to have visible mould growth and water staining;

- 20 SF of drywall finish within the entrance; and
- 10 SF of wood ceiling finish within the corridor.



Photo #5 - Mouldy drywall, ceiling tile, and fibreglass batting within the kitchen.



Photo #6 - Mouldy/water stained wood ceiling finish.

## 4.0 RECOMMENDATIONS

### 4.1 General

1. Provide this report and the detailed plans and specifications to the contractor prior to bidding or commencing work.
2. Retain a qualified consultant to specify, inspect and verify the successful removal of hazardous materials.
3. Update the asbestos inventory upon completion of the abatement and removal of asbestos-containing materials.

### 4.2 Building Demolition or Renovation Work

The following recommendations are made regarding demolition or renovation involving the hazardous materials identified.



#### 4.2.1 *Asbestos*

Remove all asbestos-containing materials (ACM) prior to demolition work.

If the identified ACM will not be removed prior to commencement of the work, disturbance of ACM must follow the appropriate asbestos precautions for the classification of work being performed.

Asbestos-containing materials must be disposed of at a landfill approved to accept asbestos waste.

#### 4.2.2 *Lead*

Analytical results indicate that all of the paints from the Site Building contain low levels of lead (i.e., less than the EACO guideline of 0.1% for lead-containing paints). Special precautions are not recommended unless aggressive disturbance (grinding, blasting, torching) is planned.

Lead-acid batteries should be recycled when taken out of service or prior to building demolition.

#### 4.2.3 *Silica*

Construction disturbance of silica-containing products may result in excessive exposures to airborne silica, especially if performed indoors and dry. Cutting, grinding, drilling or demolition of materials containing silica should be completed only with proper respiratory protection and other worker safety precautions that comply with provincial standards or guidelines.

#### 4.2.4 *Mercury*

Do not break lamps or separate liquid mercury from components. Recycle and reclaim mercury from fluorescent lamps when taken out of service. Liquid mercury is classified as a hazardous waste and must be disposed of in accordance with local regulations.

#### 4.2.5 *PCBs*

When light fixtures are removed, examine light ballasts for PCB content. If ballasts are not clearly labelled as "non-PCB", or are suspected to contain PCBs; package and ship ballasts for destruction at a federally permitted facility.

#### 4.2.6 *Mould*

Mould growth was noted in areas affected by the planned work. Use appropriate precautions and protect workers during removal using methods that comply with provincial guidelines.



## 5.0 TERMS AND LIMITATIONS

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.

## 6.0 REFERENCES

The following legislation and documents were referenced in completing the assessment and this report:

1. General Regulation – Workplace Safety and Health Act W210;
2. Workplace Health Hazard Regulation (Manitoba Regulation 217/2006 Workplace Safety and Health Regulation), under the Workplace Safety and Health Act;
3. Canadian Environmental Protection Act – SOR/92-507;
4. PCB Regulations, SOR/2008-273, Canadian Environmental Protection Act;
5. Manitoba Regulation MR 474/88, Manitoba PCB Regulation made under The Dangerous Goods Act;
6. Guideline for Asbestos Management – Workplace Safety and Health Branch – Manitoba Labour and Immigration (2017);
7. A Guideline for Working with Lead – Workplace Safety and Health Branch – Manitoba labour and Immigration (2002); and
8. Guidelines for the Investigation, Assessment, & Remediation of Mould In Workplaces, Workplace Safety and Health Division, Manitoba Labour, 2001.

\\pinchin.com\wpg\Job\224000s\0224301.000 RCMP,MooseLake,HAZ,Assessment\Deliverables\224301 Report Hazardous Building Materials Assessment Moose Lake MB RCMP July 27 2018.docx

Template: Master Report for Hazardous Materials Assessment Report (Pre-Construction), Haz, July 20, 2017

**APPENDIX I-A**  
**Asbestos Analytical Certificates**



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Pinchin Ltd.  
54 Terracon Place  
Winnipeg, MB R2J 4G7

**Attn:** Ken Brydges  
Rodney Legault

**Lab Order ID:** 51818037  
**Analysis ID:** 51818037\_PLM  
**Date Received:** 7/17/2018  
**Date Reported:** 7/19/2018

**Project:** 224301, Moose Lake MB, RCMP

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0001A	Drywall joint compound - Wall - Interior - 1st room off entrance	None Detected		100% Other	White Non Fibrous Homogeneous
51818037PLM_1					Crushed
0001B	Drywall joint compound - Wall - Interior - Interview Room	None Detected		100% Other	White Non Fibrous Homogeneous
51818037PLM_2					Crushed
0001C	Drywall joint compound - Wall - Exterior Wall - Side door	None Detected		100% Other	White Non Fibrous Homogeneous
51818037PLM_3					Crushed
0001D	Drywall joint compound - Wall - Exterior Wall - Corridor	None Detected		100% Other	White Non Fibrous Homogeneous
51818037PLM_4					Crushed
0001E	Drywall joint compound - Wall - Interior - Corridor	None Detected		100% Other	White Non Fibrous Homogeneous
51818037PLM_5					Crushed
0002A	Cement Board - Wall - Utility Room	20% Chrysotile 5% Amosite		75% Other	White Fibrous Homogeneous
51818037PLM_6					Teased
0002B	Cement Board - Wall - Utility Room	Not Analyzed			
51818037PLM_7					
0002C	Cement Board - Ceiling - Utility Room	Not Analyzed			
51818037PLM_8					

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Sharon Donald (18)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Pinchin Ltd.  
54 Terracon Place  
Winnipeg, MB R2J 4G7

**Attn:** Ken Brydges  
Rodney Legault

**Lab Order ID:** 51818037  
**Analysis ID:** 51818037\_PLM  
**Date Received:** 7/17/2018  
**Date Reported:** 7/19/2018

**Project:** 224301, Moose Lake MB, RCMP

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0003A	Vinyl sheet flooring - Beige Grey - Interview room	None Detected	20% Cellulose	80% Other	Beige Fibrous Heterogeneous
51818037PLM_9					Teased
0003B	Vinyl sheet flooring - Beige Grey - 1st room off entrance	None Detected	20% Cellulose	80% Other	Beige Fibrous Heterogeneous
51818037PLM_10					Teased
0003C - A	Vinyl sheet flooring - Beige Grey - 1st room off entrance	None Detected		100% Other	Yellow Non Fibrous Homogeneous
51818037PLM_11	sheet flooring				Dissolved
0003C - B	Vinyl sheet flooring - Beige Grey - 1st room off entrance	None Detected		100% Other	Yellow Non Fibrous Homogeneous
51818037PLM_18	mastic				Dissolved
0004A	Caulking - Wall @ Ceilings	None Detected		100% Other	Brown, White Non Fibrous Heterogeneous
51818037PLM_12					Ashed
0004B	Caulking - Wall @ Ceilings	None Detected		100% Other	Brown, White Non Fibrous Heterogeneous
51818037PLM_13					Ashed
0004C	Caulking - Wall @ Ceilings	None Detected		100% Other	Brown, White Non Fibrous Heterogeneous
51818037PLM_14					Ashed
0005A	Asphalt Shingles	None Detected	15% Fiber Glass	85% Other	Gray, Black Non Fibrous Heterogeneous
51818037PLM_15					Dissolved

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Sharon Donald (18)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Pinchin Ltd.  
54 Terracon Place  
Winnipeg, MB R2J 4G7

**Attn:** Ken Brydges  
Rodney Legault

**Lab Order ID:** 51818037  
**Analysis ID:** 51818037\_PLM  
**Date Received:** 7/17/2018  
**Date Reported:** 7/19/2018

**Project:** 224301, Moose Lake MB, RCMP

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0005B	Asphalt Shingles	None Detected	15% Fiber Glass	85% Other	Gray, Black Non Fibrous Heterogeneous
51818037PLM_16					Dissolved
0005C	Asphalt Shingles	None Detected	15% Fiber Glass	85% Other	Gray, Black Non Fibrous Heterogeneous
51818037PLM_17					Dissolved

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Sharon Donald (18)

Analyst

Approved Signatory

51818037

Version 1-15-2012

**Client:** Pinchin Ltd.  
**Contact:** Ken Brydges  
 54 Terracon Place, Winnipeg, MB  
**Address:** R2J 4G7, Old RCMP Detachment  
**Phone:** 204 452-0983  
**Fax:**  
**Email:** kbrydges@pinchin.com  
 rlegault@pinchin.com  
**Project:** 224301, Moose Lake MB, RCMP  
**Client Notes:**  
**P.O. #:** 224301  
**Date Submitted:** July 16, 2018  
**Analysis:** PLM - Stop Positive  
**Analyze to 0.1%**  
**TurnAroundTime:** 4Days

**\*Instructions:**  
 Use Column "B" for your contact info

To See an Example Click the bottom Example Tab.

Enter samples between "<<" and ">>"  
 Begin Samples with a "<<" above the first sample  
 and end with a ">>" below the last sample.  
 Only Enter your data on the first sheet "Sheet1"

Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.

Invoice to:  
 Contact name here  
 Email address here

Scientific Analytical Institute



4604 Dundas Dr.  
 Greensboro, NC 27407  
 Phone: 336.292.3888  
 Fax: 336.292.3313  
 Email: lab@sailab.com

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
---------------	-----------------------	--------------------	-----------------------

<<			
0001A		Drywall joint compound - Wall - Interior - 1st room off entrance	
0001B		Drywall joint compound - Wall - Interior - Interview Room	
0001C		Drywall joint compound - Wall - Exterior Wall - Side door	
0001D		Drywall joint compound - Wall - Exterior Wall - Corridor	
0001E		Drywall joint compound - Wall - Interior - Corridor	
0002A		Cement Board - Wall - Utility Room	
0002B		Cement Board - Wall - Utility Room	
0002C		Cement Board - Ceiling - Utility Room	
0003A		Vinyl sheet flooring - Beige Grey - Interview room	
0003B		Vinyl sheet flooring - Beige Grey - 1st room off entrance	
0003C		Vinyl sheet flooring - Beige Grey - 1st room off entrance	
0004A		Caulking - Wall @ Ceilings	
0004B		Caulking - Wall @ Ceilings	
0004C		Caulking - Wall @ Ceilings	
0005A		Asphalt Shingles	
0005B		Asphalt Shingles	
0005C		Asphalt Shingles	
>>			

Accepted

Rejected

*L. Hamilton*  
 7/17/18  
 10:30 AM

**APPENDIX I-B**  
**Lead Analytical Certificates**



# Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy  
EPA SW-846 3050B/6010C/7000B



**Customer:** Pinchin Ltd.  
54 Terracon Place  
Winnipeg, MB R2J 4G7

**Attn:** Ken Brydges

**Lab Order ID:** 51818029  
**Analysis ID:** 51818029\_PBP  
**Date Received:** 7/17/2018  
**Date Reported:** 7/24/2018

**Project:** Hazardous Material Assessment Mooselake MB RCM Old Detachment

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
L-0001	Paint Chip - Blue Paint - Interior	0.0596	< 67	< 0.0067%
51818029PBP_1				
L-0002	Paint Chip - Beige Paint - Interior	0.0523	< 76	< 0.0076%
51818029PBP_2				
L-0003	Paint Chip - Blue Paint - Exterior	0.0272	600	0.060%
51818029PBP_3				
L-0004	Paint Chip - Brown Paint - Interior Doors	0.0180	< 89	< 0.0089%
51818029PBP_4				

Unless otherwise noted blank sample correction was not performed on analytical results. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50ml sample is 4µg Total Pb).

Daniel Olson (4)

Analyst

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

Laboratory Director

51818029

Version 1-15-2012

<b>Client:</b>	Pinchin Environmental	<p><b>*Instructions:</b> Use Column "B" for your contact info</p> <p>To See an Example Click the bottom Example Tab.</p> <p>Enter samples between "&lt;&lt;" and "&gt;&gt;" Begin Samples with a "&lt;&lt;" above the first sample and end with a "&gt;&gt;" below the last sample. Only Enter your data on the first sheet "Sheet1"</p> <p>Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.</p>	
<b>Contact:</b>	Ken Brydges		
<b>Address:</b>	54 Terracon Place Winnipeg MB		
<b>Phone:</b>	204-792-6580		
<b>Fax:</b>	204-453-0788		
<b>Email:</b>	<a href="mailto:kbrydges@pinchin.com">kbrydges@pinchin.com</a>		
<b>Project:</b>			
<b>Client Notes:</b>	Hazardous Material Assessment Mooselake MB RCM Old Detachme		 <p>Scientific Analytical Institute</p> <p>302-L Pomona Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sailab.com</p>
<b>P.O. #:</b>		224301	
<b>Date Submitted:</b>		7/12/2018 0:00	
<b>Analysis:</b>	LEAD		
<b>TurnAroundTime:</b>	Regular		

Sample Number	Data 1	Sample Description	Data 2
<<			
L-0001	Metal doors and frames	Paint Chip - Blue Paint - Interior	
L-0002	Wall ceiling finish	Paint Chip - Beige Paint - Interior	
L-0003	Metal Cladding	Paint Chip - Blue Paint - Exterior	
L-0004	Metal doors and frames	Paint Chip - Brown Paint - Interior Doors	

Accepted  [Signature]

Rejected

7/17 10:30 AM

**APPENDIX II**  
**Methodology**

## 1.0 GENERAL

Pinchin conducts a room-by-room survey (rooms, corridors, service areas, exterior, etc.) to identify the hazardous building materials as defined by the scope of work. All work is conducted in accordance with our own internal Standard Operating Procedures.

Information regarding the location and condition of hazardous building materials encountered and visually estimated quantities are recorded. The locations of any samples collected are recorded on small-scale plans.

As-built drawings and previous reports are referenced where provided.

### 1.1 Scope Limitations

The assessment excludes the following:

- Articles belonging to the owner, tenant or occupant (e.g. stored items, furniture, appliances, etc.);
- Underground materials or equipment (e.g. vessels, drums, underground storage tanks, pipes, etc.);
- Building envelope, structural components, inaccessible or concealed materials or other items where sampling may cause consequential damage to the property;
- Energized systems (e.g. internal boiler components, elevators, mechanical or electrical components);
- Controlled products (e.g. stored chemicals, operational or process-related substances); and
- Materials not typically associated with construction (e.g. settled dust, spills, residual contamination from prior spills, etc.).

The assessment includes limited demolition of wall and ceiling finishes (drywall or plaster) to view concealed conditions at representative areas as permitted by the current building use. Limited destructive testing of flooring is conducted where possible (under carpets or multiple layers of flooring). Demolition of masonry walls (chases, shafts etc.), structural items or exterior building finishes is not conducted.

## 1.2 Asbestos

Pinchin conducts an inspection for the presence of friable and non-friable asbestos-containing materials (ACM). A friable material is a material that when dry can be crumbled, pulverized or powdered by hand pressure.

A separate set of samples is collected of each type of homogenous material suspected to contain asbestos. A homogenous material is defined by the US EPA as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogeneous materials are determined by visual examination and available information on the phases of construction and prior renovations.

Pinchin collects samples at a rate that is in compliance with the requirements of local regulations and guidelines.

The sampling strategy is also based on known ban dates and phase out dates of the use of asbestos; sampling of certain building materials is not conducted after specific construction dates. In addition, to be conservative, several years past these dates are added to account for some uncertainty in the exact start/finish date of construction and associated usage of ACM.

In some cases, manufactured products such as asbestos cement pipe are visually identified without sample confirmation.

Pinchin conducts limited demolition of masonry block walls (core holes) to investigate for loose fill insulation. The core holes are temporarily patched with expanding foam.

Pinchin undertakes sampling of roofing felts at the client's request. A temporary repair is made with asphalt-based mastic and fibreglass mesh. A more permanent repair is required if the roofing or the building is to remain in use for any extended period of time. Pinchin is not responsible or liable for leaks or water damage caused by sampling and or repair.

Flooring mastic/adhesive and leveling compounds are only sampled and analyzed if present on the underside of flooring samples (vinyl floor tile and vinyl sheet flooring).

If present, the following materials are presumed to be asbestos-containing and are best sampled immediately prior to commencing renovation/disturbance:

- Concrete floor levelling compound;
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring; and
- Mechanical packing, ropes and gaskets.

Pinchin submits the bulk samples to a NVLAP accredited laboratory for analysis. The analysis is performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

In Manitoba an ACM is defined as materials containing 0.1% or more asbestos by weight for friable materials, 1% or more asbestos by weight for non-friable materials.

The asbestos analysis is completed using a stop positive approach. Only one result meeting the above regulated criteria is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos. The laboratory stops analyzing samples from a homogeneous material once a result equal to or greater than the regulated criteria is detected in any of the samples of that material. All samples of a homogeneous material are analyzed if no asbestos is detected. In some cases, all samples are analyzed in the sample set regardless of result. Where building materials are described in the report as non-asbestos, this means that either no asbestos was detected by the analytical method utilized in any of the multiple samples or, if detected, it is below the lower limit of an asbestos-containing material in the applicable regulation.

Asbestos materials are evaluated in order to make recommendations regarding remedial work. The priority for remedial action is based on several factors:

- Friability (friable or non-friable);
- Condition (good, damaged, debris); and
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition).

### 1.3 Lead

Pinchin collects samples of distinctive paint finishes and surface coatings present in more than a limited application, where removal of the paint is possible. Pinchin collects samples by scraping the painted finish to include base and covering applications. Drawings included show sample locations.

Analysis for lead in paints or surface coatings is performed at an accredited laboratory in accordance with EPA Method No. 3050B/Method No. 7420; flame atomic absorption.

For this report, all paints containing lead at a concentration of 0.009% or greater are discussed. Paint and surface coatings are evaluated for condition such as flaking, chipping or chalking.

### 1.4 Silica

Pinchin identifies building materials suspected of containing crystalline silica (e.g. concrete, cement, tile, brick, masonry, mortar) by knowledge of current and historic applications and visual inspection only.

Pinchin does not perform sampling of these materials for laboratory analysis of crystalline silica content.

## **1.5 Mercury**

Building materials/products/equipment (e.g. thermostats, barometers, pressure gauges, light tubes), suspected to contain mercury are identified by visual inspection only. Dismantling of equipment suspected of containing mercury is not performed. Sampling of these materials for laboratory analysis of mercury content is not performed.

Mercury spills or damaged mercury-containing equipment are recorded where observed.

## **1.6 Polychlorinated Biphenyls**

Pinchin determines the potential for light ballasts to contain PCBs based on the age of the building, a review of maintenance records and examination of labels or nameplates on equipment, where present and accessible. The information is compared to known ban dates of PCBs and Environment Canada publications. Other than light ballasts and pole mounted transformers, all other liquid uses of PCBs should have been discontinued.

Pinchin records spills or leakage of suspect PCB-containing fluids where observed or identified in historical documents.

## **1.7 Visible Mould**

Pinchin identifies the presence of mould if visibly present in a significant quantity on exposed building surfaces. If any mould growth is concealed within wall cavities it is not addressed in this assessment.

Master Template: Methodology Document for Hazardous Building Materials Pre-Construction, HAZ, October 18, 2016