



Pre-Construction Hazardous Building Materials Assessment

25 Ruben Crescent, Kemptville,
Ontario

Prepared for:

Municipality of North Grenville

285 County Road 44, Box 130,
Kemptville, ON K0G 1J0

Attention: Kevin Henry

October 13, 2016

Pinchin File: 116671



Issued to: Municipality of North Grenville
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EXECUTIVE SUMMARY

Municipality of North Grenville (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the building located at 25 Ruben Crescent, Kemptville, Ontario. Pinchin performed the assessment on August 31, 2016.

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

The assessed area consisted of all accessible areas of the building.

SUMMARY OF FINDINGS

Asbestos:

Asbestos-containing materials (ACM) were confirmed to be present as follows:

- Non-friable, chrysotile asbestos-containing, grey caulking at exterior doors and windows in good condition.
- Non-friable, chrysotile asbestos-containing, metallic gold coating on the underside of the 2nd level kitchenette sink in good condition.

Lead:

- Lead was confirmed present in select paints/surface coatings.
- Lead-containing batteries are present in emergency lighting throughout the building.
- Lead is present in pointing mortar at brick masonry on the building exterior at a concentration of 5.0%.
- Lead glaze is present on brick at the building exterior.
- Lead wool or lead caulking may be present in bell and spigot fittings on cast iron pipes in the assessed area.
- Lead is presumed present in electrical components, including wiring connectors, grounding conductors, and plumbing/electrical solder.
- Lead is presumed present in glazing on ceramic tiles.
- Lead contamination is present on interior finishes, attributed to the historic use of the building as an indoor firing range.



Silica:

- Crystalline silica is present in concrete, mortar, brick, masonry, ceramics, grout, and plaster.

Mercury:

- Mercury vapour is present in fluorescent lamps.
- Liquid mercury is present in thermostat ampules.

Polychlorinated Biphenyls (PCBs):

- PCBs may be present in light ballasts.

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 if disturbed by the planned renovation work.
2. Remove and properly dispose of PCB ballasts and mercury-containing items if disturbed by the planned renovation work.
3. Follow appropriate safe work procedures when handling or disturbing lead and silica.
4. Remediate the following materials as soon as possible regardless of the timing of the planned work in the area:

Material and Quantity	Location	Recommended Procedure
White and Light Grey Lead-Containing Paint (2000 ft ²)	Main Floor, Garage, Perimeter Walls	Class 2A Lead Abatement as per EACO
Red and Green Lead-Containing Paint (10 LF)	West Elevation Windows	Class 2A Lead Abatement as per EACO
Brick and Mortar	Perimeter of Building	Class 2A Lead Abatement as per EACO
Interior of Building	All Surfaces and Finishes	Clean Following Class 1 Lead Abatement as per EACO



Please refer to Section 4.0 of this report for detailed recommendations regarding administrative and renovation 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.



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1.0 INTRODUCTION AND SCOPE

Municipality of North Grenville (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the building located at 25 Ruben Crescent, Kemptville, Ontario.

Gordon Gillespie, B.A., C-NRPP, Project Manager performed the assessment on August 31, 2016. The surveyor was unaccompanied 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 renovation. This assessment is intended to be used for pre-construction purposes only, and may not provide sufficient detail for long term management of hazardous materials as required by Health and Safety regulations. 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 accessible areas 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).
- Mould.

The following Ontario Designated Substances are not typically found in building materials in a composition/state that is hazardous and were not included in this assessment:

- Arsenic.
- Acrylonitrile.
- Benzene.
- Coke oven emissions.
- Ethylene oxide.



- Isocyanates.
- Vinyl chloride monomer.

2.0 BACKGROUND INFORMATION

Building Description Item	Details
Building Use	Former - Armoury and Rifle Range Current Cadet Training Centre
Number of Floors/Levels	Two stories plus basement
Approximate Area of Building (Square Feet)	10,000
Era of Construction	1860s
Structure	Concrete
Exterior Cladding	Brick masonry
HVAC	Natural gas fired furnaces
Roof	Asphalt shingled gable roof (No Access)
Flooring	Vinyl tile, carpet, wood, ceramic tile and exposed concrete
Interior Walls	Drywall, smooth plaster, wood and exposed concrete
Ceilings	Drywall and acoustic ceiling tiles

2.1 Existing Reports

Existing reports were not provided for reference.

2.2 Inaccessible Locations

The following rooms or areas of the building were not accessible to the surveyor and are therefore not included in the report:

Area or Room	Reason
Storage closet, 2 nd level	Locked
Roof	Not accessible

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.
- Asbestos cement products.
- Vinyl sheet flooring.

3.1.2 Thermal Systems Insulation (TSI)

3.1.2.1 Pipe Insulation

Insulated pipes were not found.



Photo 1 – Uninsulated pipes in the basement.

3.1.2.2 Duct Insulation

Insulated ducts were not found.



Photo 2 – Uninsulated duct in the basement.

3.1.2.3 Mechanical Equipment Insulation

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



Photo 3 – Uninsulated gas fired furnace in the basement.



Photo 4 – Non-asbestos fibreglass insulated domestic hot water tank in the basement.

3.1.3 Acoustic Ceiling Tiles

Four distinct types of acoustic ceiling tile are present in the assessed area, as follows:

Size, Type, Pattern, Photo #	Locations (Quantity in Square Feet)	Sample Number or Date Code	Asbestos Type
12" x 12", Splined, White, Smooth, Photo 5	2 nd Level Classroom Area (750)	0001A-C	None Detected
24" x 48", Lay-in, White, Textured, Photo 6	2 nd Level Classroom Area (500)	0002A-C	None Detected
24" x 48", Lay-in, White with Pinholes and Fissures, Photo 7	2 nd Level Kitchenette (250)	0003A-C	None Detected
24" x 48", Lay-in, White, Textured, Photo 8	Main Floor Office (500)	Visually Assessed (Fibreglass)	N/A



Photo 5 – Non-asbestos 12" x 12" glue-on acoustic ceiling tiles in the 2nd level classroom area.

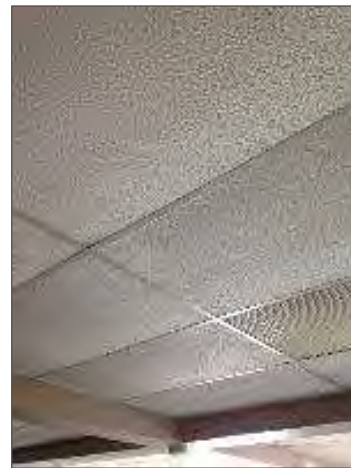


Photo 6 – Non-asbestos 24" x 48" lay-in acoustic ceiling tiles in the 2nd level classroom area.



Photo 7 – Non-asbestos 24" x 48" lay-in acoustic ceiling tiles in the 2nd level kitchenette.



Photo 8 – Non-asbestos 24" x 48" lay-in acoustic ceiling tiles in the main floor office.

3.1.4 Plaster

Plaster is present on the 2nd level office west perimeter wall. Plaster does not contain asbestos (Samples 0004A-C).

3.1.5 Drywall Joint Compound

Drywall (gypsum board) and drywall joint compound is present as a wall and ceiling finish in varying quantities throughout the main floor and 2nd level. Based on the results of the testing (Samples 0005A-G), the drywall joint compound does not contain asbestos.

3.1.6 Vinyl Floor Tile and Mastic

Vinyl floor tiles are present as follows:

Size, Pattern, Colour and Photo Number	Locations (Quantity)	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12" x 12", Grey with White Flecks, Photo 9	2 nd Level Classroom Area (750)	0006A-C	None Detected	None Detected
12" x 12", Green and Yellow, Photo 10	2 nd Level Classroom Area (Below Carpet and First Layer of Subfloor)	0007A-C	None Detected	None Detected



Photo 9 – Non-asbestos 12" x 12" vinyl floor tiles in the 2nd level classroom area.



Photo 10 – Non-asbestos 9" x 9" vinyl floor tiles in the 2nd level classroom area.

3.1.7 Levelling Compound

The levelling compound present in the basement does not contain asbestos (Samples 0008A-C).



Photo 11 – Non-asbestos levelling compound in the basement.

3.1.8 Sealants, Caulking, and Putty

Sealants, caulking and putty are present as follows:

Colour	Locations	Sample Number	Asbestos Type
White (Caulking)	Exterior Elevation Windows	0009A-C	None Detected
White (Caulking)	Main Entrance	0010A-C	None Detected

Colour	Locations	Sample Number	Asbestos Type
Brown (Caulking)	South Elevation Windows	0011A-C	None Detected
Dark Brown (Caulking)	South Elevation Windows	0012A-C	None Detected
White (Caulking)	South Elevation Windows	0013A-C	None Detected
Grey (Caulking)	Main Entrance, Windows and Garage Doors	0014A-C	Chrysotile

3.1.9 Other Building Materials

Vinyl baseboards, and the associated mastic, in the 2nd level classroom area does not contain asbestos (Samples 0015A-C).

Basement and 2nd level access stair treads do not contain asbestos (Samples 0016A-C).

Metallic gold coating, containing chrysotile asbestos, is present on the underside of the 2nd level kitchenette sink (Samples 0017A-C).

Grey cementitious parging, present on the basement perimeter walls, does not contain asbestos (Samples 0018A-C).

Red cementitious parging, present at the east elevation garage doors, does not contain asbestos (Samples 0019A-C).

Brick mortar at the perimeter of the building is non-asbestos (Samples 0020A-C).



Photo 12 – Non-asbestos stair tread on the basement stairs.



Photo 13 – Asbestos-containing metallic gold coating on the underside of the 2nd level kitchenette sink.



Photo 14 – Non-asbestos grey cementitious parging on the basement perimeter walls.



Photo 15 – Non-asbestos brick mortar at the perimeter of the building.

3.1.10 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:

- Roofing, felts and tar.
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring.
- Mechanical packing, ropes and gaskets.

3.2 Lead

3.2.1 Paints and Surface Coatings

A total of 15 paint samples were collected from interior and exterior finishes. The following table summarizes the analytical results for paints sampled and their locations:

Sample Number	Colour, Substrate Description	Sample Locations	Lead (%)
Pb01	White Paint, On Wood	Basement Stair Railing	10.6
Pb02	Grey Paint, On Wood	Basement Stairs	4.85



Sample Number	Colour, Substrate Description	Sample Locations	Lead (%)
Pb03	Grey Paint, On Concrete	Basement Floor	0.0417
Pb04	Red Oxide Paint, On Metal	Basement, East Perimeter Wall	0.0165
Pb05	White Paint, On Concrete	Basement, Ceiling	0.103
Pb06	Yellow Paint, On Concrete	Basement, South Wall	0.153
Pb08	White Paint, On Concrete	Main Floor, Garage, North Perimeter Wall	0.148
Pb09	Light Grey Paint, On Concrete	Main Floor, Garage, North Perimeter Wall	0.871
Pb10	Bright Yellow Paint, On Concrete	Main Floor, Garage, Floor	3.65
Pb11	Red Paint, On Wood	Main Floor, Cadet Clothing Locker, Baseboard	0.291
Pb12	White Paint, On Drywall	Main Floor, Cadet Clothing Locker, Ceiling	5.86
Pb13	White Paint, On Wood	Main Floor, Cadet Clothing Locker, Window	2.74
Pb14	Blue Paint, On Plaster	2nd Level, Office, West Perimeter Wall	19.7
Pb15	Red Paint, On Wood	West Elevation Windows	13.7
Pb16	Green Paint, On Wood	West Elevation Windows	27.2

All paints and materials sampled were found to contain elevated levels of lead.

Subject paint was flaking/peeling and subject materials were found to be in poor condition in the following areas:

- White paint on concrete, main floor perimeter walls (Pb08).
- Light grey paint on concrete, main floor perimeter walls (Pb09).
- Red paint on wood, west elevation windows (Pb15).
- Green paint on wood, west elevation windows (Pb16).



Photo 16 – Flaking/peeling white and light grey lead-containing paint on the main floor north perimeter wall.



Photo 17 – Flaking/peeling red and green lead-containing paint on the west elevation windows.

3.2.2 Lead Products and Applications

Lead-containing batteries are present in emergency lighting throughout the building.

Lead is present in pointing mortar at brick masonry on the building exterior at a concentration of 5.0% (Sample Pb18). Some of the brick and mortar was

Glaze present on exterior brick contains 2.3% lead (Sample Pb17).

Lead contamination was found on unpainted wood joists in the basement (Sample Pb08).

Lead wool or lead caulking may be present in bell and spigot fittings on cast iron pipes in the assessed area.



Photo 18 – Spalling lead-containing brick and mortar along the south elevation.



Photo 19 – Lead-contaminated unpainted wood floor joists in the basement.

Due to the elevated lead content of all interior paint samples and one bulk material sample, Pinchin requested further analysis of select samples following a surface wash to determine the potential for lead contamination from a source other than the paint itself. A total of two paint samples and one bulk sample were reanalyzed. The following table summarizes the analytical results:

Sample Number	Colour, Substrate Description	Sample Locations	Lead (%)
Pb02	Grey Paint, On Wood	Basement Stairs	0.721
Pb07	Bulk Wood	Basement, Floor Joist	<0.00476
Pb14	Blue Paint,	2 nd Level, Office, West Perimeter Wall	12.9

The paint samples were confirmed to contain elevated levels of lead; however, to a lesser degree than the initial analysis indicated. The bulk sample was found to contain insignificant levels of lead.

These results confirm the presence of lead contamination from a source other than the paint itself. The most likely source of this contamination is from use of the former rifle range located in the basement.

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 plumbing/electrical solder.
- Glazing on ceramic tiles.

3.3 Silica

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

- Poured or pre-cast concrete.
- Masonry and mortar.
- Ceramic tiles, grout.
- Plaster.

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps.

3.4.2 Mercury-Containing Devices

Mercury is present as a liquid in thermostats.



Photo 20 – Liquid mercury is present in thermostats.

3.5 Polychlorinated Biphenyls

3.5.1 Caulking

White, brown and grey caulking is present at exterior windows and doors (Samples PCB-01, PCB-02 and PCB-03) and contain <5.00, <7.94 and <5.00 ug/g (ppm) PCBs respectively. The materials are non-PCB solids, based on the threshold given in SOR/2008-273 (50 ppm).

3.5.2 *Lighting Ballasts*

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-1980 and contain PCBs.

3.5.3 *Transformers*

Transformers were not found during the assessment.

3.6 **Mould**

Visible mould growth was not found during the assessment.

4.0 **RECOMMENDATIONS**

4.1 **General**

1. Prepare plans and performance specifications for hazardous material removal required for the planned work. The specifications should include the scope of work, safe work practices, personal protective equipment, respiratory protection, and disposal of waste materials.
2. Investigate any items excluded from the scope of work of this report. Ideally this investigation will be performed as part of the development of the specifications, or at a minimum immediately prior to commencing renovations when the areas are no longer occupied. Specifically the following materials/areas need to be investigated:
 - Roofing materials, prior to disturbance.
 - Submit confirmed lead-containing paints and materials for TCLP analysis to determine requirements for disposal.
3. Provide this report and the detailed plans and specifications to the contractor prior to bidding or commencing work.
4. Retain a qualified consultant to specify, inspect and verify the successful removal of hazardous materials.
5. Update the asbestos inventory upon completion of the abatement and removal of asbestos-containing materials.



4.2 Remedial Work

Pinchin recommends the following remedial work be performed to comply with existing regulations, regardless of proposed construction work due to the condition and location of the material:

Material and Quantity	Location	Recommended Procedure
White and Light Grey Lead-Containing Paint (2000 ft ²)	Main Floor, Garage, Perimeter Walls	Class 2A Lead Abatement as per EACO
Red and Green Lead-Containing Paint (10 LF)	West Elevation Windows	Class 2A Lead Abatement as per EACO
Brick and Mortar	Perimeter of Building	Class 2A Lead Abatement as per EACO
Interior of Building	All Surfaces and Finishes	Clean Following Class 1 Lead Abatement as per EACO

4.3 Building Renovation Work

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

4.3.1 Asbestos

Remove all asbestos-containing materials (ACM) prior to renovation, alteration, maintenance or demolition work or if ACM may be disturbed by the 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.

4.3.2 Lead

For paints identified as having elevated levels of lead (i.e., greater than the EACO guideline of 0.1% for lead-containing paints), construction disturbance may result in over-exposure to lead dust or fumes. The need for work procedures, engineering controls and personal protective equipment should be assessed on a site specific basis to comply with provincial standards or guidelines. Performing an exposure assessment during work that disturbs lead in paints and coatings may be able to reduce the use of some of these precautions.

Items painted with paints containing elevated levels of lead may be a hazardous waste. Test lead-painted materials for leachable lead prior to disposal.



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

4.3.3 *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.

4.3.4 *Mercury*

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

4.3.5 *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.

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.

The work performed by Pinchin was conducted in accordance with generally accepted engineering or scientific practices current in this geographical area at the time the work was performed. No warranty is either expressed or implied by furnishing written reports or findings. The Client acknowledges that subsurface and concealed conditions may vary from those encountered or inspected. Pinchin can only comment on the environmental conditions observed on the date(s) the survey is performed. The work is limited to those materials or areas of concern identified by the Client or outlined in our proposal. Other areas of concern may exist but were not investigated within the scope of this assignment.



Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issue, regulatory statutes are subject to interpretation and these interpretations may change over time. Pinchin accepts no responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

6.0 REFERENCES

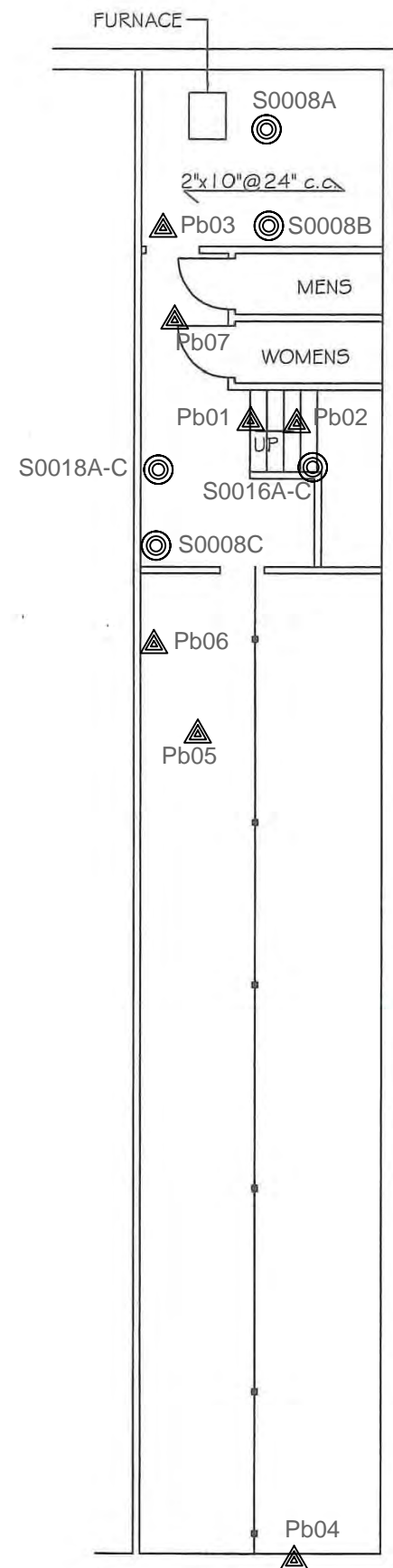
The following legislation and documents were referenced in completing the assessment and this report:

1. Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
2. Designated Substances, Ontario Regulation 490/09.
3. Lead on Construction Projects, Ministry of Labour Guidance Document.
4. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
5. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.
6. Silica on Construction Projects, Ministry of Labour Guidance Document.
7. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.

116671 PreConHazBldgMat Assessment 25 Ruben Cres Kemptville ON Municipality of NGrenville

Template: Master Report for Hazardous Materials Assessment Report (Pre-Construction), Haz, September 23, 2016

APPENDIX I
Drawings



LEGEND:

⊙ ASBESTOS BULK SAMPLE

▲ LEAD BULK SAMPLE

⊠ PCB BULK SAMPLE

■ ASBESTOS-CONTAINING METALLIC GOLD COATING

NOT ALL KNOWN OR SUSPECTED HAZARDOUS BUILDING MATERIALS MAY BE DEPICTED ON THE DRAWING. REFER TO THE HAZARDOUS BUILDING MATERIALS ASSESSMENT REPORT FOR A COMPLETE LIST OF KNOWN AND SUSPECTED HAZARDOUS BUILDING MATERIALS.

ASBESTOS-CONTAINING GREY CAULKING IS PRESENT AT EXTERIOR WINDOWS, MAN-DOORS AND GARAGE DOORS.

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

BASE PLAN PROVIDED BY CLIENT.

CLIENT:

MUNICIPALITY OF NORTH GRENVILLE

LOCATION:

25 RUBEN CRESCENT
KEMPTVILLE, ONTARIO

TITLE:

HAZARDOUS BUILDING
MATERIALS ASSESSMENT
BASEMENT

DATE:

2016/09/30

PROJECT #:

116671

DRAWN BY:

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DRAWING:

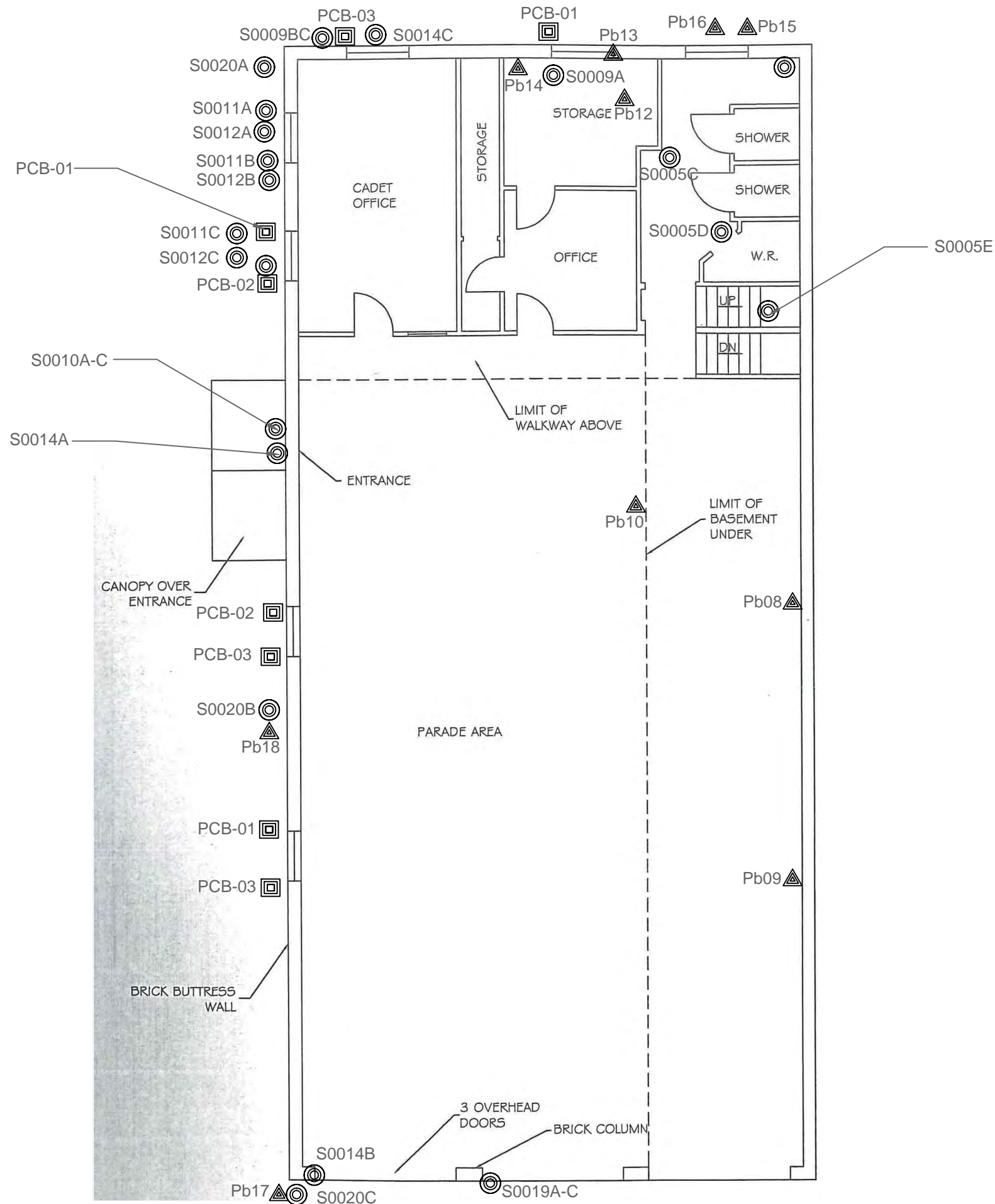
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SCALE:

NTS



LEGEND:

⊙ ASBESTOS BULK SAMPLE

▲ LEAD BULK SAMPLE

□ PCB BULK SAMPLE

■ ASBESTOS-CONTAINING METALLIC GOLD COATING

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BASE PLAN PROVIDED BY CLIENT.

CLIENT:

MUNICIPALITY OF NORTH GRENVILLE

LOCATION:

25 RUBEN CRESCENT
KEMPTVILLE, ONTARIO

TITLE:

HAZARDOUS BUILDING
MATERIALS ASSESSMENT
GROUND FLOOR

DATE:

2016/09/30

PROJECT #:

116671

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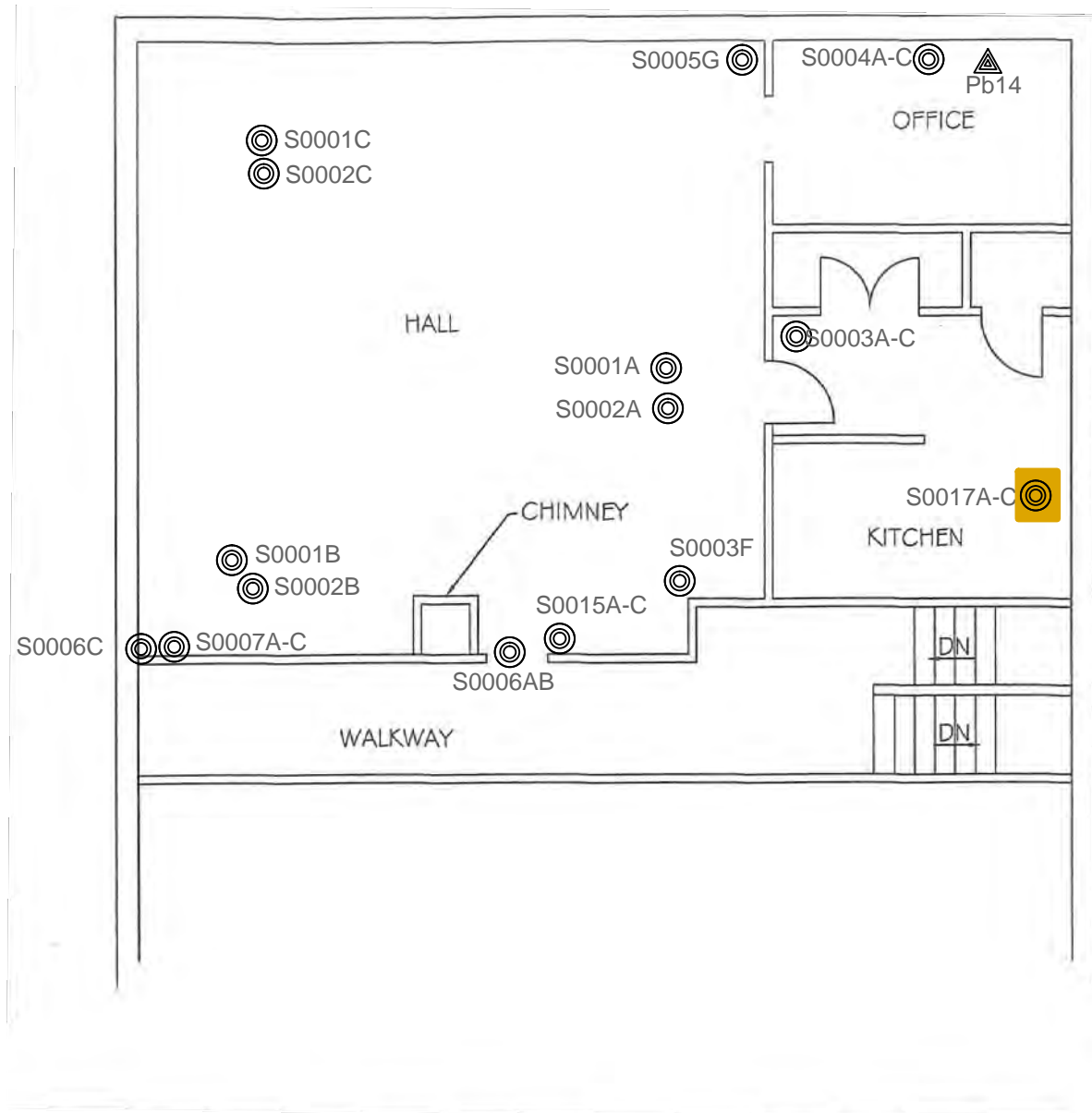
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2 OF 4

SCALE:

NTS



LEGEND:

⊙ ASBESTOS BULK SAMPLE

▲ LEAD BULK SAMPLE

□ PCB BULK SAMPLE

■ ASBESTOS-CONTAINING METALLIC GOLD COATING

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CLIENT:

MUNICIPALITY OF NORTH GRENVILLE

LOCATION:

25 RUBEN CRESCENT
KEMPTVILLE, ONTARIO

TITLE:

HAZARDOUS BUILDING
MATERIALS ASSESSMENT
SECOND FLOOR

DATE:

2016/09/30

PROJECT #:

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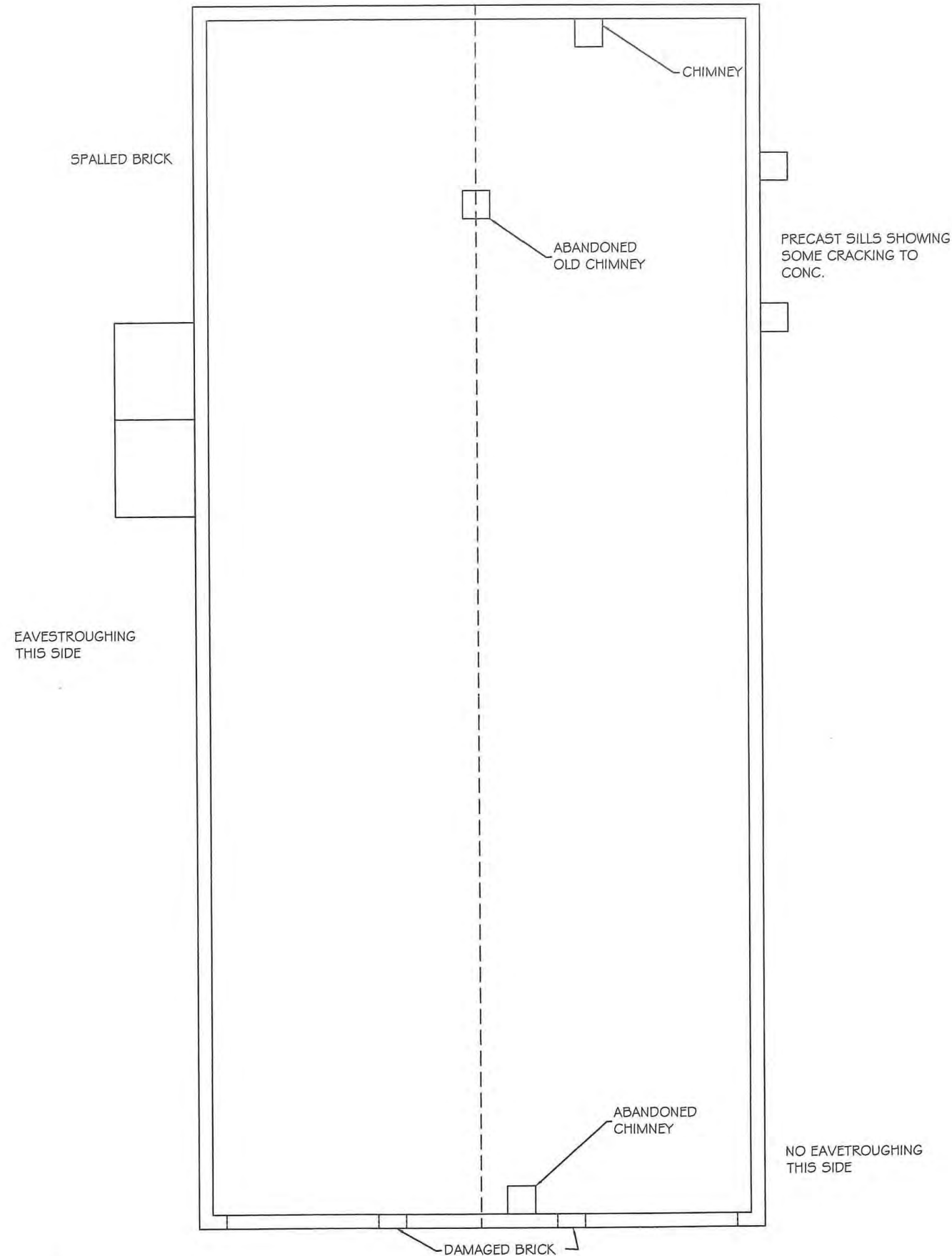
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3 OF 4

SCALE:

NTS



LEGEND:

-  ASBESTOS BULK SAMPLE
-  LEAD BULK SAMPLE
-  PCB BULK SAMPLE
-  ASBESTOS-CONTAINING METALLIC GOLD COATING

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LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

BASE PLAN PROVIDED BY CLIENT.

CLIENT:

MUNICIPALITY OF NORTH GRENVILLE

LOCATION:

25 RUBEN CRESCENT
KEMPTVILLE, ONTARIO

TITLE:

HAZARDOUS BUILDING
MATERIALS ASSESSMENT
ROOF

DATE:

2016/09/30

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4 OF 4

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SCALE:

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APPENDIX II-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.
555 Legget Drive
Kanata, ON K2K 2X3

Attn: Kristen Brook
Gordon Gillespie

Lab Order ID: 1617413
Analysis ID: 1617413_PLM
Date Received: 9/6/2016
Date Reported: 9/9/2016

Project: 116671, Municipality of North Grenville, 25 Ruben Crescent, Kemptville, ON

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0001A	12" x 12" Acoustic Ceiling Tile; White, Smooth - 2nd Level, Classroom Area	None Detected	98% Cellulose	2% Other	White, Brown Fibrous Homogeneous
1617413PLM_1					Teased
0001B	12" x 12" Acoustic Ceiling Tile; White, Smooth - 2nd Level, Classroom Area	None Detected	98% Cellulose	2% Other	White, Brown Fibrous Homogeneous
1617413PLM_2					Teased
0001C	12" x 12" Acoustic Ceiling Tile; White, Smooth - 2nd Level, Classroom Area	None Detected	98% Cellulose	2% Other	White, Brown Fibrous Homogeneous
1617413PLM_3					Teased
0002A	24" x 48" Acoustic Ceiling Tile; White, Textured - 2nd Level, Classroom Area	None Detected	98% Cellulose	2% Other	White, Brown Fibrous Homogeneous
1617413PLM_4					Teased
0002B	24" x 48" Acoustic Ceiling Tile; White, Textured - 2nd Level, Classroom Area	None Detected	98% Cellulose	2% Other	White, Brown Fibrous Homogeneous
1617413PLM_5					Teased
0002C	24" x 48" Acoustic Ceiling Tile; White, Textured - 2nd Level, Classroom Area	None Detected	98% Cellulose	2% Other	White, Brown Fibrous Homogeneous
1617413PLM_6					Teased
0003A	24" x 48" Acoustic Ceiling Tile; White with Pinholes and Fissures - 2nd Level, Kitchene	None Detected	45% Cellulose 45% Fiber Glass	10% Other	White Fibrous Homogeneous
1617413PLM_7			Teased		
0003B	24" x 48" Acoustic Ceiling Tile; White with Pinholes and Fissures - 2nd Level, Kitchene	None Detected	45% Cellulose 45% Fiber Glass	10% Other	White Fibrous Homogeneous
1617413PLM_8			Teased		

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Bart Huber (73)

Analyst

Approved Signatory



Bulk Asbestos Analysis

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



NVLAP Lab Code: 200664-0

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555 Legget Drive
Kanata, ON K2K 2X3

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Lab Order ID: 1617413
Analysis ID: 1617413_PLM
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Project: 116671, Municipality of North Grenville, 25 Ruben Crescent, Kemptville, ON

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0003C	24" x 48" Acoustic Ceiling Tile; White with Pinholes and Fissures - 2nd Level, Kitchene	None Detected	45% Cellulose 45% Fiber Glass	10% Other	White Fibrous Homogeneous
1617413PLM_9					Teased
0004A	Plaster - 2nd Level, Office, West Perimeter Wall	None Detected	2% Cellulose	98% Other	Gray Non Fibrous Heterogeneous
1617413PLM_10	single layer plaster				Crushed
0004B	Plaster - 2nd Level, Office, West Perimeter Wall	None Detected	2% Cellulose	98% Other	Gray Non Fibrous Heterogeneous
1617413PLM_11	single layer plaster				Crushed
0004C	Plaster - 2nd Level, Office, West Perimeter Wall	None Detected	2% Cellulose	98% Other	Gray Non Fibrous Heterogeneous
1617413PLM_12	single layer plaster				Crushed
0005A	Drywall Joint Compound - Main Floor, Cadet Clothing Locker, Ceiling	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_13					Crushed
0005B	Drywall Joint Compound - Main Floor, Washroom/Shower Area Corri	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_14					Crushed
0005C	Drywall Joint Compound - Main Floor, Washroom/Shower Area Corri	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_15					Crushed
0005D	Drywall Joint Compound - Main Floor, Washroom/Shower Area Corri	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_16					Crushed

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0005E	Drywall Joint Compound - Stairs to 2nd Level	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_17					Crushed
0005F	Drywall Joint Compound - 2nd Level, Classroom Area, East Wall	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_18					Crushed
0005G	Drywall Joint Compound - 2nd Level, Classroom Area, West Perimeter Wall	None Detected		100% Other	White Non Fibrous Homogeneous
1617413PLM_19					Crushed
0006A - A	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level at Classroom Threshold	None Detected		100% Other	Gray Non Fibrous Homogeneous
1617413PLM_20	tile				Dissolved
0006A - B	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level at Classroom Threshold	None Detected		100% Other	Black Non Fibrous Homogeneous
1617413PLM_65	mastic				Dissolved
0006B - A	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level, Classroom Area	None Detected		100% Other	Gray Non Fibrous Homogeneous
1617413PLM_21	tile				Dissolved
0006B - B	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level, Classroom Area	None Detected		100% Other	Black Non Fibrous Homogeneous
1617413PLM_66	mastic				Dissolved
0006C - A	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level, Classroom Area	None Detected		100% Other	Gray Non Fibrous Homogeneous
1617413PLM_22	tile - ashed				Ashed

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Date Reported: 9/9/2016

Project: 116671, Municipality of North Grenville, 25 Ruben Crescent, Kemptville, ON

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0006C - B	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level, Classroom Area	None Detected		100% Other	Black Non Fibrous Homogeneous
1617413PLM_67	mastic				Dissolved
0007A - A	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x	None Detected	35% Cellulose	65% Other	Green, Black Non Fibrous Heterogeneous
1617413PLM_23	tile				Dissolved
0007A - B	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x	None Detected		100% Other	Brown Non Fibrous Homogeneous
1617413PLM_68	mastic				Dissolved
0007B - A	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x	None Detected	35% Cellulose	65% Other	Green, Black Non Fibrous Heterogeneous
1617413PLM_24	tile				Dissolved
0007B - B	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x	None Detected		100% Other	Brown Non Fibrous Homogeneous
1617413PLM_69	mastic				Dissolved
0007C - A	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x	None Detected		100% Other	Green, Black Non Fibrous Heterogeneous
1617413PLM_25	tile - ashed				Ashed
0007C - B	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x	None Detected		100% Other	Brown Non Fibrous Homogeneous
1617413PLM_70	mastic				Dissolved
0008A	Levelling Compound - Old Rifle Range, Basement Floor	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_26					Crushed

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EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0008B	Levelling Compound - Old Rifle Range, Basement Floor	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_27					Crushed
0008C	Levelling Compound - Old Rifle Range, Basement Floor	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_28					Crushed
0009A	White Caulking - Cadet Clothing Locker; Window	None Detected		100% Other	Tan Non Fibrous Heterogeneous
1617413PLM_29					Crushed
0009B	White Caulking - West Elevation Windows	None Detected		100% Other	Tan Non Fibrous Heterogeneous
1617413PLM_30					Crushed
0009C	White Caulking - West Elevation Windows	None Detected		100% Other	Tan Non Fibrous Heterogeneous
1617413PLM_31					Crushed
0010A	White Caulking - Main Entrance	None Detected		100% Other	White Non Fibrous Heterogeneous
1617413PLM_32					Dissolved
0010B	White Caulking - Main Entrance	None Detected		100% Other	White Non Fibrous Heterogeneous
1617413PLM_33					Dissolved
0010C	White Caulking - Main Entrance	None Detected		100% Other	White Non Fibrous Heterogeneous
1617413PLM_34					Dissolved

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0011A	Brown Caulking - South Elevation Windows	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_35					Dissolved
0011B	Brown Caulking - South Elevation Windows	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_36					Dissolved
0011C	Brown Caulking - South Elevation Windows	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_37					Dissolved
0012A	Dark Brown Caulking - South Elevation Windows	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_38					Dissolved
0012B	Dark Brown Caulking - South Elevation Windows	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_39					Dissolved
0012C	Dark Brown Caulking - South Elevation Windows	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_40					Dissolved
0013A	White Caulking - South Elevation Windows	None Detected		100% Other	White Non Fibrous Heterogeneous
1617413PLM_41					Dissolved
0013B	White Caulking - South Elevation Windows	None Detected		100% Other	White Non Fibrous Heterogeneous
1617413PLM_42					Dissolved

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0013C	White Caulking - South Elevation Windows	None Detected		100% Other	White Non Fibrous Heterogeneous
1617413PLM_43					Dissolved
0014A	Grey Caulking - Main Entrance	3% Chrysotile		97% Other	Gray Non Fibrous Heterogeneous
1617413PLM_44					Crushed
0014B	Grey Caulking - East Elevation at Garage Doors	Not Analyzed			
1617413PLM_45					
0014C	Grey Caulking - West Elevation Windows	Not Analyzed			
1617413PLM_46					
0015A - A	Vinyl Baseboard - 2nd Level, Classroom Area	None Detected		100% Other	Gray Non Fibrous Homogeneous
1617413PLM_47	covebase				Dissolved
0015A - B	Vinyl Baseboard - 2nd Level, Classroom Area	None Detected		100% Other	Brown Non Fibrous Homogeneous
1617413PLM_71	mastic				Dissolved
0015B - A	Vinyl Baseboard - 2nd Level, Classroom Area	None Detected		100% Other	Gray Non Fibrous Homogeneous
1617413PLM_48	covebase				Dissolved
0015B - B	Vinyl Baseboard - 2nd Level, Classroom Area	None Detected		100% Other	Brown Non Fibrous Homogeneous
1617413PLM_72	mastic				Dissolved

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0015C - A	Vinyl Baseboard - 2nd Level, Classroom Area	None Detected		100% Other	Gray Non Fibrous Homogeneous
1617413PLM_49	covebase				Dissolved
0015C - B	Vinyl Baseboard - 2nd Level, Classroom Area	None Detected		100% Other	Brown Non Fibrous Homogeneous
1617413PLM_73	mastic				Dissolved
0016A	Stair Tread - Basement Stairs	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_50					Dissolved
0016B	Stair Tread - Basement Stairs	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_51					Dissolved
0016C	Stair Tread - Basement Stairs	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1617413PLM_52					Dissolved
0017A	Metallic Gold Coating - 2nd Level, Kitchenette, Sink	5% Chrysotile		95% Other	Silver Non Fibrous Heterogeneous
1617413PLM_53					Dissolved
0017B	Metallic Gold Coating - 2nd Level, Kitchenette, Sink	Not Analyzed			
1617413PLM_54					
0017C	Metallic Gold Coating - 2nd Level, Kitchenette, Sink	Not Analyzed			
1617413PLM_55					

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0018A	Grey Cementitious Parging - Old Rifle Range, Basement, South Wall	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_56					Crushed
0018B	Grey Cementitious Parging - Old Rifle Range, Basement, South Wall	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_57					Crushed
0018C	Grey Cementitious Parging - Old Rifle Range, Basement, South Wall	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_58					Crushed
0019A	Red Cementitious Parging - East Elevation at Garage Doors	None Detected		100% Other	Red Non Fibrous Heterogeneous
1617413PLM_59					Crushed
0019B	Red Cementitious Parging - East Elevation at Garage Doors	None Detected		100% Other	Red Non Fibrous Heterogeneous
1617413PLM_60					Crushed
0019C	Red Cementitious Parging - East Elevation at Garage Doors	None Detected		100% Other	Red Non Fibrous Heterogeneous
1617413PLM_61					Crushed
0020A	Brick Mortar - South Elevation	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_62					Crushed
0020B	Brick Mortar - South Elevation	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_63					Crushed

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0020C	Brick Mortar - East Elevation	None Detected		100% Other	Gray Non Fibrous Heterogeneous
1617413PLM_64					Crushed

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Analyst

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Client: Pinchin Ltd.
Contact: Kristen Brook
 555 Legget Drive, Suite 1001,
 Tower A
Address: Kanata, ON K2K 2X3
Phone: 613-592-3387
Fax: 613-592-5897
Email: kbrook@pinchin.com
 ggillespie@pinchin.com
Project: 116671, Municipality of North
 Grenville, 25 Ruben Crescent,
 Kemptville, ON
Client Notes:
P.O. #: 116671
Date Submitted: Sept. 2, 2016
Analysis: PLM - Stop Positive
TurnAroundTime: 4 Day

***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.

Version 1-15-2012

1617413

Invoice to:
 Gordon Gillespie
 ggillespie@pinchin.com



**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		12" x 12" Acoustic Ceiling Tile; White, Smooth - 2nd Level, Classroom Area	
0001B		12" x 12" Acoustic Ceiling Tile; White, Smooth - 2nd Level, Classroom Area	
0001C		12" x 12" Acoustic Ceiling Tile; White, Smooth - 2nd Level, Classroom Area	
0002A		24" x 48" Acoustic Ceiling Tile; White, Textured - 2nd Level, Classroom Area	
0002B		24" x 48" Acoustic Ceiling Tile; White, Textured - 2nd Level, Classroom Area	
0002C		24" x 48" Acoustic Ceiling Tile; White, Textured - 2nd Level, Classroom Area	
0003A		24" x 48" Acoustic Ceiling Tile; White with Pinholes and Fissures - 2nd Level, Kitchenette	
0003B		24" x 48" Acoustic Ceiling Tile; White with Pinholes and Fissures - 2nd Level, Kitchenette	
0003C		24" x 48" Acoustic Ceiling Tile; White with Pinholes and Fissures - 2nd Level, Kitchenette	
0004A		Plaster - 2nd Level, Office, West Perimeter Wall	
0004B		Plaster - 2nd Level, Office, West Perimeter Wall	
0004C		Plaster - 2nd Level, Office, West Perimeter Wall	

1617413

0005A	Drywall Joint Compound - Main Floor, Cadet Clothing Locker, Ceiling
0005B	Drywall Joint Compound - Main Floor, Washroom/Shower Area Corridor, South Wall
0005C	Drywall Joint Compound - Main Floor, Washroom/Shower Area Corridor, North Wall
0005D	Drywall Joint Compound - Main Floor, Washroom/Shower Area Corridor, West Wall
0005E	Drywall Joint Compound - Stairs to 2nd Level
0005F	Drywall Joint Compound - 2nd Level, Classroom Area, East Wall
0005G	Drywall Joint Compound - 2nd Level, Classroom Area, West Perimeter Wall
0006A	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level at Classroom Threshold
0006B	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level, Classroom Area
0006C	12" x 12" Vinyl Floor Tile; Grey with White Flecks - 2nd Level, Classroom Area
0007A	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x 12" Vinyl
0007B	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x 12" Vinyl
0007C	9" x 9" Vinyl Floor Tile; Green and Yellow - 2nd Level, Classroom Area, Below 12" x 12" Vinyl
0008A	Levelling Compound - Old Rifle Range, Basement Floor
0008B	Levelling Compound - Old Rifle Range, Basement Floor
0008C	Levelling Compound - Old Rifle Range, Basement Floor
0009A	White Caulking - Cadet Clothing Locker; Window
0009B	White Caulking - West Elevation Windows
0009C	White Caulking - West Elevation Windows
0010A	White Caulking - Main Entrance
0010B	White Caulking - Main Entrance
0010C	White Caulking - Main Entrance
0011A	Brown Caulking - South Elevation Windows
0011B	Brown Caulking - South Elevation Windows
0011C	Brown Caulking - South Elevation Windows
0012A	Dark Brown Caulking - South Elevation Windows
0012B	Dark Brown Caulking - South Elevation Windows
0012C	Dark Brown Caulking - South Elevation Windows
0013A	White Caulking - South Elevation Windows
0013B	White Caulking - South Elevation Windows
0013C	White Caulking - South Elevation Windows
0014A	Grey Caulking - Main Entrance
0014B	Grey Caulking - East Elevation at Garage Doors
0014C	Grey Caulking - West Elevation Windows
0015A	Vinyl Baseboard - 2nd Level, Classroom Area
0015B	Vinyl Baseboard - 2nd Level, Classroom Area
0015C	Vinyl Baseboard - 2nd Level, Classroom Area

1617413

0016A	Stair Tread - Basement Stairs
0016B	Stair Tread - Basement Stairs
0016C	Stair Tread - Basement Stairs
0017A	Metallic Gold Coating - 2nd Level, Kitchenette, Sink
0017B	Metallic Gold Coating - 2nd Level, Kitchenette, Sink
0017C	Metallic Gold Coating - 2nd Level, Kitchenette, Sink
0018A	Grey Cementitious Parging - Old Rifle Range, Basement, South Wall
0018B	Grey Cementitious Parging - Old Rifle Range, Basement, South Wall
0018C	Grey Cementitious Parging - Old Rifle Range, Basement, South Wall
0019A	Red Cementitious Parging - East Elevation at Garage Doors
0019B	Red Cementitious Parging - East Elevation at Garage Doors
0019C	Red Cementitious Parging - East Elevation at Garage Doors
0020A	Brick Mortar - South Elevation
0020B	Brick Mortar - South Elevation
0020C	Brick Mortar - East Elevation
>>	

APPENDIX II-B
Lead Analytical Certificates

Certificate of Analysis

Pinchin Ltd. (Ottawa)

555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Gordon Gillespie

Client PO: 25 Ruben Crescent, Kemptville ON
Project: 116671
Custody:

Report Date: 7-Sep-2016
Order Date: 1-Sep-2016

Order #: 1636346

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
1636346-01	Pb01 White Paint - Old Rifle Range/Basement, Stair Railings - On Wood
1636346-02	Pb02 GreyPaint - Old Rifle Range/Basement, Stairs - On Wood
1636346-03	Pb03 GreyPaint - Old Rifle Range/Basement, Floor - On Concrete
1636346-04	Pb04 Red Oxide Paint - Old Rifle Range/Basement, East Wall - On Metal
1636346-05	Pb05 White Paint - Old Rifle Range/Basement, Ceiling - On Concrete
1636346-06	Pb06 Yellow Paint - Old Rifle Range/Basement, South Wall- On Concrete
1636346-07	Pb08 White Paint - Main Floor, Garage, North Perimeter Wall - On Brick
1636346-08	Pb09 Light Grey Paint - Main Floor, Garage, North Perimeter Wall - On Brick
1636346-09	Pb10 Bright Yellow Paint - Main Floor, Garage, Floor - On Concrete
1636346-10	Pb11 Red Paint - Main Floor, Cadet Clothing Locker, Baseboard - On Wood
1636346-11	Pb12 White Paint - Main Floor, Cadet Clothing Locker, Ceiling - On Drywall
1636346-12	Pb13 White Paint - Main Floor, Cadet Clothing Locker, Window - On Wood
1636346-13	Pb14 Blue Paint - 2nd Level Office, West Perimeter Wall - On Plaster
1636346-14	Pb15 Red Paint - West Elevation Windows
1636346-15	Pb16 Green Paint - West Elevation Windows

Approved By:



Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis
Client: **Pinchin Ltd. (Ottawa)**
Client PO: **25 Ruben Crescent, Kemptville ON**

Report Date: 07-Sep-2016
Order Date: 1-Sep-2016
Project Description: **116671**

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	6-Sep-16	6-Sep-16

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

- n/a: not applicable
- ND: Not Detected
- MDL: Method Detection Limit
- Source Result: Data used as source for matrix and duplicate samples
- %REC: Percent recovery.
- RPD: Relative percent difference.

Certificate of Analysis
 Client: Pinchin Ltd. (Ottawa)
 Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 07-Sep-2016
 Order Date: 1-Sep-2016
 Project Description: 116671

Sample Results

Lead				Matrix: Paint
				Sample Date: 31-Aug-16
Parcel ID	Client ID	Units	MDL	Result
1636346-01	Pb01 White Paint - Old Rifle Range/Basement, Stair Railing	% by Wt.	0.0020	10.6
1636346-02	Pb02 GreyPaint - Old Rifle Range/Basement, Stairs - On W	% by Wt.	0.0020	4.85
1636346-03	Pb03 GreyPaint - Old Rifle Range/Basement, Floor - On Cc	% by Wt.	0.0020	0.0417
1636346-04	Pb04 Red Oxide Paint - Old Rifle Range/Basement, East W	% by Wt.	0.0020	0.0165
1636346-05	Pb05 White Paint - Old Rifle Range/Basement, Ceiling - Or	% by Wt.	0.0020	0.103
1636346-06	Pb06 Yellow Paint - Old Rifle Range/Basement, South Wall	% by Wt.	0.0020	0.153
1636346-07	Pb08 White Paint - Main Floor, Garage, North Perimeter W	% by Wt.	0.0020	0.148
1636346-08	Pb09 Light Grey Paint - Main Floor, Garage, North Perimet	% by Wt.	0.0020	0.871
1636346-09	Pb10 Bright Yellow Paint - Main Floor, Garage, Floor - On C	% by Wt.	0.0020	3.65
1636346-10	Pb11 Red Paint - Main Floor, Cadet Clothing Locker, Base	% by Wt.	0.0020	0.291
1636346-11	Pb12 White Paint - Main Floor, Cadet Clothing Locker, Ceil	% by Wt.	0.0020	5.86
1636346-12	Pb13 White Paint - Main Floor, Cadet Clothing Locker, Win	% by Wt.	0.0020	2.74
1636346-13	Pb14 Blue Paint - 2nd Level Office, West Perimeter Wall - C	% by Wt.	0.0020	19.7
1636346-14	Pb15 Red Paint - West Elevation Windows	% by Wt.	0.0020	13.7
1636346-15	Pb16 Green Paint - West Elevation Windows	% by Wt.	0.0020	27.2

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	0.0020	% by Wt.						
Matrix Duplicate									
Lead	ND	0.0020	% by Wt.	ND			0.0	30	
Matrix Spike									
Lead	198		ug/L	ND	79.3	70-130			

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Page 1 of 2

Client Name: Pinchin Ltd.	Project Reference: I16671 - 25 Ruben Crescent, Kemptville, ON	TAT: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> 3 Day
Contact Name: Gordon Gillespie	Quote #	<input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3	PO #	Date Required: _____
Telephone: 613.592.3387	Email Address: ggillespie@pinchin.com	

Criteria: O. Reg. 153/04 (As Amended) Table ___ RSC Filing O. Reg. 558/00 PWQO CCME SUB (Storm) SUB (Sanitary) Municipality: _____ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Parcel Order Number:	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead											
					Date	Time												
1636 346 - Paint	Pb01 White Paint - Old Rifle Range/Basement, Stair Railings - On Wood	P		1	8/31/2016		X											
1636 347 - Bulk	Pb02 Grey Paint - Old Rifle Range/Basement, Stairs - On Wood	P		1	8/31/2016		X											
	Pb03 Grey Paint - Old Rifle Range/Basement, Floor - On Concrete	P		1	8/31/2016		X											
	Pb04 Red Oxide Paint - Old Rifle Range/Basement, East Wall - On Metal	P		1	8/31/2016		X											
	Pb05 White Paint - Old Rifle Range/Basement, Ceiling - On Concrete	P		1	8/31/2016		X											
	Pb06 Yellow Paint - Old Rifle Range/Basement, South Wall - On Concrete	P		1	8/31/2016		X											
	Pb07 Bulk Wood - Old Rifle Range/Basement, Joist	O		1	8/31/2016		X											
	Pb08 White Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X											
	Pb09 Light Grey Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X											
	Pb10 Bright Yellow Paint - Main Floor, Garage, Floor - On Concrete	P		1	8/31/2016		X											

Comments: Please provide results in % by weight

Method of Delivery: *Paracel*

Relinquished By (Sign): <i>Kristen Brook</i>	Received by Driver/Dept: <i>J. JENSEN</i>	Received at Lab: <i>ENVIRONMENTAL DONMATA</i>	Verified By: <i>[Signature]</i>
Relinquished By (Print): Kristen Brook	Date/Time: <i>01/09/16 2:10 PM</i>	Date/Time: <i>SEP 01, 2016 05:16</i>	Date/Time: <i>01/09/16 19:04</i>
Date/Time: 9/1/16 12:00pm	Temperature: _____ °C	Temperature: _____ °C	pH Verified <input type="checkbox"/> By: _____

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Page 2 of 2

Client Name: Pinchin Ltd.	Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON	TAT: [x] Regular [] 3 Day [] 2 Day [] 1 Day Date Required: _____
Contact Name: Gordon Gillespie	Quote #	
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3	PO #	
Telephone: 613.592.3387	Email Address: ggillespie@pinchin.com	

Criteria: [] O. Reg. 153/04 (As Amended) Table [] RSC Filing [] O. Reg. 558/00 [] PWOO [] CCME [] SUB (Storm) [] SUB (Sanitary) Municipality: _____ [] Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Parcel Order Number: 1636346 - Paint 1636347 - Bulk		Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead										
Sample ID/Location Name					Date	Time											
Pb11	Red Paint - Main Floor, Cadet Clothing Locker, Baseboard - On Wood	P		1	8/31/2016		X										
Pb12	White Paint - Main Floor, Cadet Clothing Locker, Ceiling - On Drywall	P		1	8/31/2016		X										
Pb13	White Paint - Main Floor, Cadet Clothing Locker, Window - On Wood	P		1	8/31/2016		X										
Pb14	Blue Paint - 2nd Level Office, West Perimeter Wall - On Plaster	P		1	8/31/2016		X										
Pb15	Red Paint - West Elevation Windows	P		1	8/31/2016		X										
Pb16	Green Paint - West Elevation Windows	P		1	8/31/2016		X										
Pb17	Brick - Southeast Corner	O		1	8/31/2016		X										
Pb18	Brick Mortar - South Elevation	O		1	8/31/2016		X										

Comments: Please provide results in % by weight

Relinquished By (Sign): <i>Kristen Brook</i>	Received by Driver/Depot: <i>A. Tasse</i>	Received at Lab: <i>SURBORN DAKMA</i>	Method of Delivery: <i>Paracel</i>
Relinquished By (Print): Kristen Brook	Date/Time: <i>01/09/16 2:10 PM</i>	Date/Time: <i>SEP 01, 2016 09:16</i>	Verified By: _____
Date/Time: 9/1/16 12:00pm	Temperature: _____ °C	Temperature: _____ °C	pH Verified [] By: _____

Certificate of Analysis

Pinchin Ltd. (Ottawa)

555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Gordon Gillespie

Client PO: 25 Ruben Crescent, Kemptville ON
Project: 116671
Custody:

Report Date: 8-Sep-2016
Order Date: 1-Sep-2016

Order #: 1636347

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
1636347-01	PB07 Bulk Wood - Old Rifle Range/Basement, Joist
1636347-02	PB17 Brick - Southeast Corner
1636347-03	PB18 Brick Mortar - South Elevation

Approved By:



Mark Foto, M.Sc.
Lab Supervisor

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 08-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	7-Sep-16	7-Sep-16
Solids, %	Gravimetric, calculation	2-Sep-16	2-Sep-16

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 08-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Client ID:	PB07 Bulk Wood - Old Rifle Range/Basement, Joist	PB17 Brick - Southeast Corner	PB18 Brick Mortar - South Elevation	-
Sample Date:	31-Aug-16	31-Aug-16	31-Aug-16	-
Sample ID:	1636347-01	1636347-02	1636347-03	-
MDL/Units	Other	Other	Other	-

Physical Characteristics

% Solids	0.1 % by Wt.	100	100	100	-
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Metals

Lead	1.0 ug/g dry	6.4	5.0	3.2	-
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Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 08-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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Metals

Lead	ND	1.0	ug/g						
------	----	-----	------	--	--	--	--	--	--

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 08-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Lead	42.4	1.0	ug/g dry	47.6			11.6	30	
Physical Characteristics									
% Solids	93.4	0.1	% by Wt.	92.8			0.7	25	

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 08-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Lead	1110		ug/L	952	63.2	70-130			QM-01

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 08-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Qualifier Notes:

QC Qualifiers :

QM-01 : The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.
Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.



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Client Name: Pinchin Ltd.	Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON	TAT: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day Date Required: _____
Contact Name: Gordon Gillespie	Quote #	
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3	PO #	
Telephone: 613.592.3387	Email Address: ggillespie@pinchin.com	

Criteria: O. Reg. 153/04 (As Amended) Table RSC Filing O. Reg. 558/00 PWQO CCME SUB (Storm) SUB (Sanitary) Municipality: Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead											
				Date	Time												
Pb01 White Paint - Old Rifle Range/Basement, Stair Railings - On Wood	P		1	8/31/2016		X											
Pb02 Grey Paint - Old Rifle Range/Basement, Stairs - On Wood	P		1	8/31/2016		X											
Pb03 Grey Paint - Old Rifle Range/Basement, Floor - On Concrete	P		1	8/31/2016		X											
Pb04 Red Oxide Paint - Old Rifle Range/Basement, East Wall - On Metal	P		1	8/31/2016		X											
Pb05 White Paint - Old Rifle Range/Basement, Ceiling - On Concrete	P		1	8/31/2016		X											
Pb06 Yellow Paint - Old Rifle Range/Basement, South Wall - On Concrete	P		1	8/31/2016		X											
Pb07 Bulk Wood - Old Rifle Range/Basement, Joist	O		1	8/31/2016		X											
Pb08 White Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X											
Pb09 Light Grey Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X											
Pb10 Bright Yellow Paint - Main Floor, Garage, Floor - On Concrete	P		1	8/31/2016		X											

Parcel Order Number:
1636 346 - Paint
1636 347 - Bulk

Comments: Please provide results in % by weight Method of Delivery: Parcel

Relinquished By (Sign): <i>Kristen Brook</i>	Received by Driver/Depot: <i>A. DEWIS</i>	Received at Lab: <i>OVERSTOWN DOXMAE</i>	Verified By: <i>[Signature]</i>
Relinquished By (Print): Kristen Brook	Date/Time: <i>01/09/16 2:10 PM</i>	Date/Time: <i>SEP 01, 2016 05:16</i>	Date/Time: <i>01/09/16 19:04</i>
Date/Time: 9/1/16 12:00pm	Temperature: _____ °C	Temperature: _____ °C	pH Verified <input type="checkbox"/> T By: _____

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Page 2 of 2

Client Name: Pinchin Ltd.	Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON	TAT: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day Date Required: _____
Contact Name: Gordon Gillespie	Quote #	
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3	PO #	
Telephone: 613.592.3387	Email Address: ggillespie@pinchin.com	

Criteria: O Reg 153/04 (As Amended) Table RSC Filing O Reg 558/00 PWOO CCME SUB (Storm) SUB (Sanitary) Municipality: _____ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead												
				Date	Time													
Parcel Order Number: 1636346 - Paint 1636347 - Bulk																		
Pb11 Red Paint - Main Floor, Cadet Clothing Locker, Baseboard - On Wood	P		1	8/31/2016		X												
Pb12 White Paint - Main Floor, Cadet Clothing Locker, Ceiling - On Drywall	P		1	8/31/2016		X												
Pb13 White Paint - Main Floor, Cadet Clothing Locker, Window - On Wood	P		1	8/31/2016		X												
Pb14 Blue Paint - 2nd Level Office, West Perimeter Wall - On Plaster	P		1	8/31/2016		X												
Pb15 Red Paint - West Elevation Windows	P		1	8/31/2016		X												
Pb16 Green Paint - West Elevation Windows	P		1	8/31/2016		X												
Pb17 Brick - Southeast Corner	O		1	8/31/2016		X												
Pb18 Brick Mortar - South Elevation	O		1	8/31/2016		X												

Comments: Please provide results in % by weight

Method of Delivery: *Hand Delivered*

Relinquished By (Sign): <i>Kristen Brook</i>	Received by Driver/Depot: <i>A. STONE</i>	Received at Lab: <i>SUNREPORN DOKMA</i>	Verified By: _____
Relinquished By (Print): Kristen Brook	Date/Time: <i>01/09/16 2:10 PM</i>	Date/Time: <i>SEP 01 2016 05:16</i>	Date/Time: _____
Date/Time: 9/1/16 12:00pm	Temperature: _____ °C	Temperature: _____ °C	pH Verified [] By: _____

Certificate of Analysis

Pinchin Ltd. (Ottawa)

555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Gordon Gillespie

Client PO: 25 Ruben Crescent, Kemptville ON
Project: 116671
Custody:

Report Date: 7-Oct-2016
Order Date: 6-Oct-2016

Revised Report

Order #: 1641331

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
1641331-01	Pb02 GreyPaint - Old Rifle Range/Basement, Stairs - On Wood
1641331-02	Pb14 Blue Paint - 2nd Level Office, West Perimeter Wall - On Plaster

Approved By:



Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 07-Oct-2016
Order Date: 6-Oct-2016
Project Description: 116671

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	7-Oct-16	7-Oct-16

Sample and QC Qualifiers Notes

1- QM-07 : The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

Sample Data Revisions

None

Work Order Revisions/Comments:

Revision 1 - this report includes an updated Reporting Unit.

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

Certificate of Analysis
 Client: Pinchin Ltd. (Ottawa)
 Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 07-Oct-2016
 Order Date: 6-Oct-2016
 Project Description: 116671

Sample Results

Lead		Matrix: Paint Sample Date: 31-Aug-16		
Paracel ID	Client ID	Units	MDL	Result
1641331-01	Pb02 GreyPaint - Old Rifle Range/Basement, Stairs - On W	% by Wt.	0.0020	0.721
1641331-02	Pb14 Blue Paint - 2nd Level Office, West Perimeter Wall - 0	% by Wt.	0.0020	12.9

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	0.0020	% by Wt.						
Matrix Duplicate									
Lead	0.144	0.0020	% by Wt.	0.157			8.7	30	
Matrix Spike									
Lead	915		ug/L	783	52.7	70-130			QM-07



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Client Name: Pinchin Ltd. Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON

Contact Name: Gordon Gillespie Quote #

Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3 PO #

Telephone: 613.592.3387 Email Address: ggillespie@pinchin.com

TAT: Regular 3 Day

12 Day 1 Day

Date Required: _____

Criteria: TO Arg. 1536 (As Amended) Table RSC Filter TO Reg. 658/00 PWQ CCME SUB (Storm) SUB (Sanitary) Municipality Other

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other) Required Analyses

Parcel Order Number:	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead	Required Analyses												
					Date	Time														
1636346 - Paint 1636347 - Bulk 1641331	Pb01 White Paint - Old Rifle Range/Basement, Stair Railings - On Wood	P		1	8/31/2016		X													
	Pb02 Grey Paint - Old Rifle Range/Basement, Stairs - On Wood	P		1	8/31/2016		X	Surface wash & re-run												
	Pb03 Grey Paint - Old Rifle Range/Basement, Floor - On Concrete	P		1	8/31/2016		X													
	Pb04 Red Oxide Paint - Old Rifle Range/Basement, East Wall - On Metal	P		1	8/31/2016		X													
	Pb05 White Paint - Old Rifle Range/Basement, Ceiling - On Concrete	P		1	8/31/2016		X													
	Pb06 Yellow Paint - Old Rifle Range/Basement, South Wall - On Concrete	P		1	8/31/2016		X													
	Pb07 Bulk Wood - Old Rifle Range/Basement, Joist	O		1	8/31/2016		X													
	Pb08 White Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X													
	Pb09 Light Grey Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X													
	Pb10 Bright Yellow Paint - Main Floor, Garage, Floor - On Concrete	P		1	8/31/2016		X													

Comments: Please provide results in % by weight

Relinquished By (Sign): *Kristen Brook* Received by Driver/Depot: *[Signature]* Received at Lab: *OTTAWA DOXMAE* Verified by: *[Signature]*

Relinquished By (Print): Kristen Brook Date/Time: *9/1/16 2:19 PM* Date/Time: *SEP 01 2016 05:43* Date/Time: *09/01/16/1609:04*

Date/Time: 9/1/16 12:00pm

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Page 2 of 2

Client Name: Pinchin Ltd.
Contact Name: Gordon Gillespie
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3
Telephone: 613.592.3387

Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON
Quote #
PO #
Email Address: ggillespie@pinchin.com

TAT: Regular 3 Day
 2 Day 1 Day
Date Required: _____

Criteria: 10, Reg. 453/04 (As Amended) Table RSC Filing O, Reg. 558/00 PWOO CCME SUB (Storm) SUB (Sanitary) Municipality: _____ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead	Required Analyses													
				Date	Time															
Pb11 Red Paint - Main Floor, Cadet Clothing Locker, Baseboard - On Wood	P		1	8/31/2016		X														
Pb12 White Paint - Main Floor, Cadet Clothing Locker, Ceiling - On Drywall	P		1	8/31/2016		X														
Pb13 White Paint - Main Floor, Cadet Clothing Locker, Window - On Wood	P		1	8/31/2016		X														
Pb14 Blue Paint - 2nd Level Office, West Perimeter Wall - On Plaster	P		1	8/31/2016		X														
Pb15 Red Paint - West Elevation Windows	P		1	8/31/2016		X														
Pb16 Green Paint - West Elevation Windows	P		1	8/31/2016		X														
Pb17 Brick - Southeast Corner	O		1	8/31/2016		X														
Pb18 Brick Mortar - South Elevation	O		1	8/31/2016		X														

Surface wash & re-run.

Comments: Please provide results in % by weight

Relinquished By (Sign): <i>Kristen Brook</i>	Received by Driver/Depot: <i>[Signature]</i>	Received at Lab: <i>SUNREPORN DOKPMS</i>	Verified By: <i>[Signature]</i>	Method of Delivery: <i>Parcel</i>
Relinquished By (Print): Kristen Brook	Date/Time: <i>01/09/16 2:00 PM</i>	Date/Time: <i>SEP 01, 2016 05:16</i>	Date/Time: <i>Oct 6/16 9:04 a</i>	
Date/Time: 9/1/16 12:00pm	Temperature: _____			

Certificate of Analysis

Pinchin Ltd. (Ottawa)

555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Gordon Gillespie

Client PO: 25 Ruben Crescent, Kemptville ON
Project: 116671
Custody:

Report Date: 7-Oct-2016
Order Date: 6-Oct-2016

Revised Report

Order #: 1641330

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID Client ID

1641330-01 PB07 Bulk Wood - Old Rifle Range/Basement, Joist

Approved By:



Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 07-Oct-2016

Order Date: 6-Oct-2016

Project Description: 116671

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	7-Oct-16	7-Oct-16

Sample and QC Qualifiers Notes

- 1- GEN01 :Elevated Reporting Limits due to limited sample volume.
- 2- Z-01 : Bulk material was rinsed with DI water and dried prior to metals digestion.

Sample Data Revisions

None

Work Order Revisions/Comments:

Revision 1 - this report includes an updated Reporting Unit.

Other Report Notes:

- n/a: not applicable
- ND: Not Detected
- MDL: Method Detection Limit
- Source Result: Data used as source for matrix and duplicate samples
- %REC: Percent recovery.
- RPD: Relative percent difference.

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.

Certificate of Analysis
 Client: Pinchin Ltd. (Ottawa)
 Client PO: 25 Ruben Crescent, Kemptville ON

Report Date: 07-Oct-2016
 Order Date: 6-Oct-2016
 Project Description: 116671

Sample Results

Lead				Matrix: Other	
				Sample Date: 31-Aug-16	
Paracel ID	Client ID	Units	MDL	Result	
1641330-01	PB07 Bulk Wood - Old Rifle Range/Basement, Joist	% by Wt.	0.00010	<0.00476 [1] [2]	

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	0.00010	% by Wt.						
Matrix Duplicate									
Lead	0.000387	0.00010	% by Wt.	0.000335			14.3	30	
Matrix Spike									
Lead	298		ug/L	67.1	92.5	70-130			

Revised Oct 6/16



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Page 1 of 2

Client Name: Pinchin Ltd.	Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON	TAT: [x] Regular [] 3 Day
Contact Name: Gordon Gillespie	Quote #	[] 2 Day [] 1 Day
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3	PO #	Date Required: _____
Telephone: 613.592.3387	Email Address: ggillespie@pinchin.com	

Criteria: [] O Reg. 153/01 (As Amended) Table [] RSC Filing [] O Reg. 558/00 [] PWO [] CCME [] SUB (Storm) [] SUB (Sanitary) Municipality: [] Other

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other) Required Analyses

Paracel Order Number: 1636346 - Paint 1636347 - Bulk 1641330	Matrix	Air Volume	# of Containers	Sample Taken		ICP - Lead													
				Date	Time														
Pb01	White Paint - Old Rifle Range/Basement, Stair Railings - On Wood	P		1	8/31/2016		X												
Pb02	Grey Paint - Old Rifle Range/Basement, Stairs - On Wood	P		1	8/31/2016		X												
Pb03	Grey Paint - Old Rifle Range/Basement, Floor - On Concrete	P		1	8/31/2016		X												
Pb04	Red Oxide Paint - Old Rifle Range/Basement, East Wall - On Metal	P		1	8/31/2016		X												
Pb05	White Paint - Old Rifle Range/Basement, Ceiling - On Concrete	P		1	8/31/2016		X												
Pb06	Yellow Paint - Old Rifle Range/Basement, South Wall - On Concrete	P		1	8/31/2016		X												
Pb07	Bulk Wood - Old Rifle Range/Basement, Joist	O		1	8/31/2016		X	Surface wash & re-run											
Pb08	White Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X												
Pb09	Light Grey Paint - Main Floor, Garage, North Perimeter Wall - On Brick	P		1	8/31/2016		X												
Pb10	Bright Yellow Paint - Main Floor, Garage, Floor - On Concrete	P		1	8/31/2016		X												

Comments: Please provide results in % by weight

Relinquished By (Sign): <i>Kristen Brook</i>	Received by Driver/Depot: <i>T. JAMES</i>	Received at Lab: <i>OMNITRON DOXMAC</i>	Method of Delivery: <i>Paracel</i>
Relinquished By (Print): Kristen Brook	Date/Time: <i>9/1/16 2:00pm</i>	Date/Time: <i>SEP 01, 2016 05:16</i>	Verified By: <i>[Signature]</i>
Date/Time: 9/1/16 12:00pm	Temperature: _____ °C	Temperature: _____ °C	Date/Time: <i>Oct 6/16 9:02a</i>

APPENDIX II-C
PCB Analytical Certificates

Certificate of Analysis

Pinchin Ltd. (Ottawa)

555 Legget Dr., Suite 1001, Tower A
Ottawa, ON K2K 2X3
Attn: Gordon Gillespie

Client PO: 25 Ruben Crescent, Kemptville, ON
Project: 116671
Custody:

Report Date: 7-Sep-2016
Order Date: 1-Sep-2016

Order #: 1636332

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
1636332-01	PCB-01 White Caulking (Composite)-Exterior Elevations
1636332-02	PCB-02 Brown Caulking (Composite)-Exterior Elevations
1636332-03	PCB-03 Grey Caulking (Composite)-Exterior Elevations

Approved By:



Mark Foto, M.Sc.
Lab Supervisor

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville, ON

Report Date: 07-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
PCBs, total	SW846 8082A - GC-ECD	1-Sep-16	7-Sep-16
Solids, %	Gravimetric, calculation	2-Sep-16	2-Sep-16

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)

Report Date: 07-Sep-2016

Order Date: 1-Sep-2016

Client PO: 25 Ruben Crescent, Kemptville, ON

Project Description: 116671

Client ID:	PCB-01 White Caulking (Composite)-Exterior Elevations	PCB-02 Brown Caulking (Composite)-Exterior Elevations	PCB-03 Grey Caulking (Composite)-Exterior Elevations	-
Sample Date:	31-Aug-16	31-Aug-16	31-Aug-16	-
Sample ID:	1636332-01	1636332-02	1636332-03	-
MDL/Units	Other	Other	Other	-

Physical Characteristics

% Solids	0.1 % by Wt.	100	100	100	-
----------	--------------	-----	-----	-----	---

PCBs

PCBs, total	0.05 ug/g dry	<5.00 [1] [2]	<7.94 [1] [2]	<5.00 [1] [2]	-
-------------	---------------	---------------	---------------	---------------	---

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville, ON

Report Date: 07-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
PCBs									
PCBs, total	ND	0.05	ug/g						
Surrogate: Decachlorobiphenyl	0.0884		ug/g		88.4	60-140			

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville, ON

Report Date: 07-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
PCBs									
PCBs, total	ND	0.05	ug/g dry	ND				40	
Surrogate: Decachlorobiphenyl	0.0979		ug/g dry		85.6	60-140			
Physical Characteristics									
% Solids	93.4	0.1	% by Wt.	92.8			0.7	25	

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville, ON

Report Date: 07-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
PCBs									
PCBs, total	0.527	0.05	ug/g	ND	115	60-140			
Surrogate: Decachlorobiphenyl	0.108		ug/g		94.0	60-140			

Certificate of Analysis
Client: Pinchin Ltd. (Ottawa)
Client PO: 25 Ruben Crescent, Kemptville, ON

Report Date: 07-Sep-2016

Order Date: 1-Sep-2016

Project Description: 116671

Qualifier Notes:

Sample Qualifiers :

- 1 : Elevated detection limits due to the nature of the sample matrix.
- 2 : Surrogates not available due to extract dilution.

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.
Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

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Client Name: Pinchin Ltd.
Contact Name: Gordon Gillespie
Address: 555 Legget Drive, Tower A, Suite 1001, Kanata, ON K2K 2x3
Telephone: 613.592.3387

Project Reference: 116671 - 25 Ruben Crescent, Kemptville, ON
Quote #
PO #
Email Address: ggillespie@pinchin.com

TAT: Regular 3 Day
 2 Day 1 Day
Date Required: _____

Criteria: Q Reg 15/04 (As Amended) Table _____ KSC Filing O. Reg 538/00 PWQO CCMs SUB (Storm) SUB (Sanitary) Municipality: _____ Other _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Parcel Order Number:

1636332

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		PCB												
				Date	Time													
PCB-01 White Caulking (Composite) - Exterior Elevations	O		1	8/31/2016		X												
PCB-02 Brown Caulking (Composite) - Exterior Elevations	O		1	8/31/2016		X												
PCB-03 Grey Caulking (Composite) - Exterior Elevations	O		1	8/31/2016		X												

Comments: Please provide results in % by weight

Method of Delivery: Paracel

Relinquished By (Sign): <u>[Signature]</u>	Received by Driver/Depot: <u>[Signature]</u>	Received at Lab: <u>SUNBORN DOKMAJ</u>	Verified By: <u>[Signature]</u>
Relinquished By (Print): Kristen Brook	Date/Time: <u>01/09/16 2:07 PM</u>	Date/Time: <u>SEP 01, 2016 05:13</u>	Date/Time: <u>01/04/16 17:30</u>
Date/Time: <u>9/1/16 12:00pm</u>	Temperature: <u>C</u>	Temperature: <u>C</u>	pH Verified <input type="checkbox"/> By: _____

APPENDIX III
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 Limitations on Scope

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).
- 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. 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 or caulking.

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.

Drywall joint compound is sampled at exterior walls, columns or other locations that are unlikely to have been renovated in an attempt to determine the presence of asbestos in the original drywall compound. Delineation of asbestos-containing drywall compound from newer, non-asbestos drywall compound is not conducted.

Flooring mastic or adhesive is 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:

- Roofing, felts and tar.
- Elevator and lift brakes.
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring.
- Refractory materials and insulations in boilers, incinerators and stacks.
- Insulation under metal clad boilers and vessels.
- Adhesives and duct mastics.
- Fibre reinforced paints and coatings.
- Paper products under wood flooring or metal or slate roofing.
- Soffit and fascia boards at elevated heights.
- Mechanical packing, ropes and gaskets.
- Fire resistant doors or metal clad finishes.



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 Ontario an ACM is defined as materials containing 0.5% or more asbestos by weight.

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, fair, poor, debris).
- Accessibility (ranking from accessible to all building users to inaccessible).
- Visibility (whether the material is obscured by other building components).
- 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 Test Method 6010; Lead, by Inductively Coupled Plasma, Atomic Emission Spectrometry.

The Ontario Ministry of Labour (MOL) has not established a lower limit for concentrations of lead in paint, below which precautions do not need to be considered during construction projects. Pinchin follows the recommendations of the Environmental Abatement Council of Ontario (EACO) Lead Guideline for Construction, Renovation, Maintenance or Repair. The Guideline suggests that 0.1% (1,000 ppm) lead in paint represents a de minimis concentration of lead in paint for construction hygiene purposes, that is a

concentration below which the lead content is not the limiting hazard in any disturbance of leaded paint for non-aggressive disturbance of painted finishes, (hand powered demolition, chipping, scraping, light sanding, etc.). The use of aggressive methods such as power grinding, torching, welding, etc. may result in significant lead exposures even with low concentrations of lead in paints (below 0.1%). Paint and surface coatings are evaluated for condition such as flaking, chipping or spalling.

Other lead building products (e.g. batteries, lead sheeting, flashing) are identified by visual observation only.

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 visually 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.

1.6 Polychlorinated Biphenyls

Pinchin determines the potential for light ballast and wet transformers 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.

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

Pinchin decides to sample exterior caulking or sealants for PCBs based on the date of construction or installation. Caulking installed after 1985 is presumed to be free of PCBs and hence not sampled. If sampled, analysis for PCBs is performed using an ASTM3 test method appropriate to the sample matrix at an accredited laboratory.

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 building cavities it is not addressed in this assessment.