



## **Hazardous Building Materials Assessment**

Walkerton Community Centre  
290 Durham Street West,  
Walkerton, Ontario

Prepared for:

### **Corporation for the Municipality of Brockton**

Box 68, 100 Scott Street  
Walkerton, Ontario

Attention: Michael Murphy  
Acting Director of Parks and Recreations

June 24, 2019

Pinchin File: 238555



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**Issued to:** Corporation for the Municipality of Brockton  
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**Issued on:** June 24, 2019  
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## **EXECUTIVE SUMMARY**

Corporation for the Municipality of Brockton (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment at 290 Durham Street West, Walkerton, Ontario. Pinchin performed the assessment on May 21, 2019.

The objective of the assessment was to document the locations of specified hazardous building materials, evaluate their condition and develop corrective action plans as required for the purposes of long term management. The results of this assessment are not intended for construction, renovation, demolition or project tendering purposes.

The assessed area consisted of the entire building excluding the roof area.

## **SUMMARY OF FINDINGS**

Asbestos: Asbestos-containing materials (ACM) are present as follows:

- Parging cement on pipe insulation in locations 1, 2, 4-6, 10, 21-24, 26 in poor to good condition.
- Presumed asbestos-containing brown duct mastic present on ductwork throughout the building in good condition.
- 24"x48", lay-in, pinhole and lengthwise fissure ceiling tiles in locations 2, 4, 6, 8, 9, 16 and 29 in good condition.
- 24"x48", lay-in, small and medium perforation ceiling tiles in locations 3-5 and 8 in good condition.
- Drywall joint compound as a wall and bulkhead finish in locations 2-10, 25 and 30 in good condition.
- Asbestos-cement (Transite) rain water leaders in locations 1, 2, 21, 23, 26, 28 and 29A in good condition.
- 12"x12" light grey with red and white fleck vinyl floor tiles and associated asbestos-containing mastic in locations 3, 7, 8 and 10 in good condition.
- Mastic associated with non-asbestos 12"x12" white, beige and olive fleck vinyl floor tiles in location 3 in good condition.
- White expansion joint caulking present at interior concrete block expansion joints throughout the building in good condition.



- Grey expansion joint caulking at exterior concrete block expansion joints, location 32 in good condition.
- Grey caulking present at exterior pipe penetrations in location 32 in good condition.
- Gold antisweat mastic present under sinks in locations 8, 10 and 16 in good condition.

Lead: Lead is present as follows:

- Paints.
- Batteries of emergency lights and fire alarm systems.
- Caulking on cast iron pipe joints (bell and spigot).
- Presumed present in electrical components, including wiring connectors, grounding conductors, solder on pipe connections and glazing on ceramic tiles.

Silica: Crystalline silica is present in concrete, mortar, masonry, ceramics, grout and stone.

Mercury: Mercury vapour is present in light tubes and as a liquid in instrumentation in boiler and mechanical rooms, location 27

Polychlorinated Biphenyls (PCBs): PCBs may be present in light ballasts. PCBs are presumed present in dielectric fluid in the transformer at the exterior. Paints, oil impregnated cables voltage regulators and capacitors are presumed to contain PCBs.

Mould and Water Damage: Visible mould and water damage was observed on a ceiling tile and on two pipe fittings in location 1.

## **SUMMARY OF RECOMMENDATIONS**

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

1. Prepare an Asbestos Management Program (AMP).
2. Perform a re-assessment of asbestos materials on an annual basis.
3. Perform a pre-construction assessment and remove all ACM prior to alteration or maintenance work if ACM may be disturbed by the work.
4. Conduct further investigation of the following items: the roof, under the ice rink, above the plastic sheeting at the structure above the ice rink and above solid ceilings in locations 7, 11 and 25.



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5. Remove and properly dispose of PCB ballasts when fixtures are decommissioned.
6. Recycle mercury-containing light tubes when removed from service.
7. Follow appropriate safe work procedures when handling or disturbing silica, lead and mould.
8. Remediate the materials as described in Section 4.2.

*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**

Corporation for the Municipality of Brockton (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Walkerton Community Centre located at 290 Durham Street West, Walkerton, Ontario.

Greg Livingston, Project Technologist, performed the assessment on May 21, 2019. The surveyor was unaccompanied during the assessment. The assessed area was occupied at the time of the assessment.

The objective of the assessment was to document the locations of specified hazardous building materials, evaluate their condition and develop corrective action plans as required. This assessment is only to be used for the purposes of long term management and routine maintenance. The results of this assessment are not to be used for construction, renovation, demolition or project tendering purposes.

### **1.1 Scope of Assessment**

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

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 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

### 2.1 Building Description

Description Item	Details
Use	Community centre.
Number of Floors	The building is two stories.
Total Area	The total area of the building is approximately 30,000 square feet.
Year of Construction	The building was constructed in 1972.
Structure	Structural steel and concrete.
Exterior Cladding	Masonry.
HVAC	Rooftop air handling units.
Roof	Not assessed.
Flooring	Vinyl tiles, vinyl sheet flooring, rubber tiles, concrete and wood.
Interior Walls	Concrete block, drywall and fibre reinforced panels (FRP).
Ceilings	Acoustic ceiling tiles, concrete and FRP.

### 2.2 Existing Reports

No existing reports were provided for reference.

### 2.3 Inaccessible Locations

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

Area or Room	Reason
The roof area	No safe access
Underneath the Ice Rink	No safe access
Above the splined ceiling tiles in location 25	Solid ceiling with no access hatch
Above the fibre reinforced panel ceiling in location 7	Solid ceiling with no access hatch
Above the concrete ceiling in location 11	Solid ceiling with no access hatch
Above the plastic sheeting at the ice rink structure, location 26	No access due to height restrictions



### 3.0 FINDINGS

The following section summarizes the findings of the assessment and provides a general description of the hazardous materials identified and their locations.

#### 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 assessed area and are not discussed in the report findings:

- Texture finishes (decorative)
- Plaster and Stucco

##### 3.1.2 *Spray-Applied Insulation*

The yellow foam spray-applied insulation present on the structure throughout the second floor ceiling space was sampled and determined to not contain asbestos (samples 0009A-G).



Non-asbestos yellow foam spray-applied insulation present on the structure, Location 2.

##### 3.1.3 *Pipe Insulation*

Parging cement, containing chrysotile asbestos, is present on pipe fittings (elbows and tees) on hot water and rain water leader pipe systems in locations 1, 2, 4-6, 10, 21-24, 26 (samples 0005A-C). Parging cement is a friable insulation, jacketed with canvas and were observed in poor to good condition. There are approximately 60 pipe fittings insulated with parging cement.

The black tar paper present below foil and over non-asbestos fiberglass insulation on pipe straights in location 1 was sampled and determined to not contain asbestos (samples 0004A-C).

The remaining pipes are insulated with fibreglass, or other non-asbestos insulation such as mineral fibre or elastomeric foam insulation.

Pipes insulated with asbestos-containing insulations may be present in inaccessible spaces such as above solid ceilings, in chases, in column enclosures and within shafts.



Asbestos-containing paring cement present on a rain water leader pipe fitting, location 2.



Non-asbestos black tar paper present underneath foil wrap on fiberglass pipe insulation, location 1.



Asbestos-containing paring cement present on a hot water pipe fitting in poor condition, location 1.

#### 3.1.4 Duct Insulation and Mastic

Ducts are either uninsulated or insulated with non-asbestos fiberglass (foil-faced).

Brown duct mastic, presumed to contain asbestos, is present on ducting in Location 3, the material maybe present in other locations throughout the building. Mastic is a non-friable material and is in good condition.



Presumed asbestos-containing brown duct mastic present on fiberglass insulated duct, location 3.



Ducting insulated with foil-faced fiberglass, location 2.

### 3.1.5 Mechanical Equipment Insulation

Mechanical equipment (fan units, hot water tanks, chillers, boilers) are either uninsulated or insulated with non-asbestos fibreglass.



Boiler insulated with non-asbestos fiberglass, location 27.



Chiller insulated with non-asbestos fiberglass, location 27.

### 3.1.6 Vermiculite

Destructive testing was conducted of masonry block walls in limited locations as directed by the Client. The masonry block walls were penetrated in two locations, loose fill vermiculite was not observed within the cavities. The locations of destructive testing have been indicated on the drawings in Appendix I.



### 3.1.7 Acoustic Ceiling Tiles

Acoustic ceiling tiles are present in the assessed area, as follows:

Size, Type, Pattern	Locations (Quantity)	Sample Number, Date Code or Nature of Material	Asbestos Type
24"x48", lay-in, pinhole and fleck	Locations 1, and 3-5	0003A-C	None Detected
24"x48", lay-in, pinhole and fissure	Locations 1, 10, 15-18, 25, 29, 29A, 29B, 29C	02/20/13	None
24"x48", lay-in, pinhole and width-wise fissure	Locations 2, 6, 11, 17, 18, 19, 19A, 19B and 19C	03/21/16	None
24"x48", lay-in, pinhole and lengthwise fissure	Locations 2 (2,400 SF), 4 (8 SF), 6 (10 SF), 8 (20 SF), 9 (240 SF), 16 (300 SF) and 29 (20 SF)	0008A-C	<b>Chrysotile</b>
24"x48", lay-in, small and medium perforation	Locations 3 (120 SF), 4 (120 SF), 5 (120 SF) and 8 (180 SF)	0012A-C	<b>Amosite</b>
24"x48", lay-in, pinhole and dense width-wise fissure	Locations 6, 10 and 25	15/12/92	None
24"x48", lay-in, white	Location 24	Wood Fibre	None
12"x12", splined, white textured	Location 25	Wood Fibre	None
24"x48", lay-in, small and medium pinhole	Location 25	09/15/07	None

The asbestos-containing ceiling tiles are considered to be non-friable and are in good condition.

Some of the ceiling tiles listed in the table above are presumed to be non-asbestos based on the date of manufacture determined from the date stamp applied to the top of the tiles. The tiles were manufactured after asbestos was stopped being used in acoustic ceiling tiles.





Non-asbestos 24"x48", lay-in, pinhole and fleck ceiling tiles, location 1.



Non-asbestos, 24"x48", lay-in, pinhole and fissure ceiling tiles, location 1.



Non-asbestos 24"x48", lay-in, pinhole and width-wise fissure ceiling tiles, location 2.



Asbestos-containing 24"x48", lay-in, pinhole and lengthwise fissure, location 2.



Asbestos-containing 24"x48", lay-in, small and medium perforation ceiling tiles, location 3.



Non-asbestos 24"x48" white wood fibre ceiling tiles, location 24.



Non-asbestos 12"x12" white textured wood fibre ceiling tiles, location 25.



Non-asbestos 24"x48", lay-in, small and medium pinhole ceiling tiles, location 25.

### 3.1.8 Drywall Joint Compound

Drywall (gypsum board) and drywall joint compound is present as a wall and bulkhead finish in locations 2-10, 25 and 30 and was found to contain chrysotile asbestos (samples 0007A-E). The asbestos-positive results indicate that at minimum, the original drywall joint compound application contains asbestos and all drywall joint compound should be presumed to contain asbestos. Further sampling may be considered in an attempt to delineate asbestos-containing drywall compound from newer, non-asbestos drywall compound. Drywall joint compound is a non-friable material. There is approximately 2,700 square feet of drywall ranging from poor to good condition.



Asbestos-containing drywall joint compound wall, location 2.



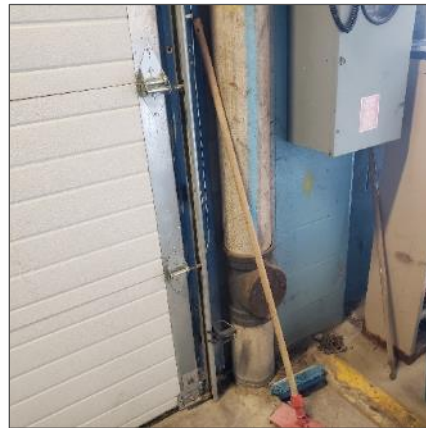
Asbestos-containing drywall joint compound on wall in poor condition with debris, location 9.

### 3.1.9 Asbestos Cement Products (Transite)

Transite pipe, presumed to contain asbestos based on visual observation, is present as rain water leaders in locations 1, 2, 21, 23, 26, 28 and 29A. Transite is non-friable material and was observed in good condition. There is approximately 560 linear feet of Transite piping. Transit is presumed to be present below the slab/grade.



Asbestos-containing Transite rain water leader, location 26.



Asbestos-containing Transite rain water leader presumed present below grade, location 27.

### 3.1.10 Vinyl Sheet Flooring

Vinyl sheet flooring is present as follows:

Pattern, Colour	Paper Backing (Yes/No)	Locations	Sample Number	Asbestos Type
White and grey pebbled	No	Location 31	0019A-C	None detected



Non-asbestos white and grey pebbled vinyl sheet flooring, Location 31.

### 3.1.11 Vinyl Floor Tiles

Vinyl floor tiles are present as follows:

Size, Pattern, Colour	Locations (Quantity)	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12"x12" light grey with red and white fleck	Locations 3 (120 SF), 7 (60 SF), 8 (200 SF), 10 (300 SF)	0011A-C	<b>Chrysotile</b>	<b>Chrysotile</b>
12"x12" white, beige and olive fleck	Location 3 (5 SF)	0013A-C	None detected	<b>Chrysotile</b>
12"x12" beige with red fleck	Locations 6 and 10	0014A-C	None detected	None detected
12"x12" grey and white fleck	Location 16	0017A-C	None detected	None detected

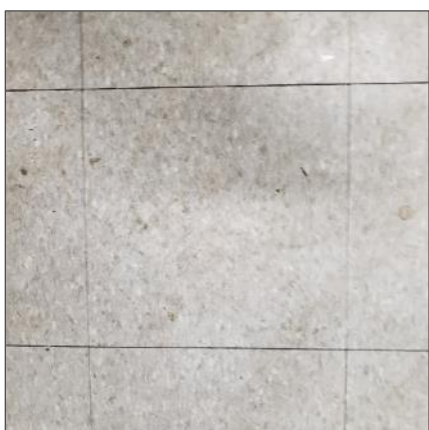
The asbestos-containing vinyl floor tiles and mastic are non-friable and were observed in good condition.



Asbestos-containing 12"x12" light grey with red and white fleck vinyl floor tiles and associated mastic, location 3.



Non-asbestos 12"x12" white, beige and olive fleck vinyl floor tiles with asbestos-containing mastic, location 3.



Non-asbestos 12"x12" grey and white fleck vinyl floor tiles, location 16.



### 3.1.12 Sealants, Caulking, and Putty

The following table presents a summary of caulking, sealants and putties present:

Material and Colour	Location	Quantity	Sample Number	Asbestos Type
Caulking, white	Interior concrete expansions joints throughout the building	600 LF	0010A-C	<b>Chrysotile</b>
Caulking, grey	Exterior concrete expansion joints, location 32	1,200 LF	0022A-C	<b>Chrysotile</b>
Caulking, light grey and yellow	Exterior vent penetrations, location 32	NA	0023A-C	None detected
Caulking, grey	Exterior gas pipe penetrations, location 32	10 SF	0021A-C	<b>Chrysotile</b>

Asbestos-containing caulking is a non-friable material and was observed in good condition.



Asbestos-containing white caulking present at interior concrete block expansion joints, location 2.



Asbestos-containing grey expansion joint caulking present at the exterior, location 32.



Non-asbestos light grey caulking at exterior vent penetration, location 32.



Non-asbestos grey and yellow caulking underneath present at exterior vent penetration, location 32.



Asbestos-containing grey firestopping present at gas line penetration at the exterior, location 32.

### 3.1.13 Roofing Products

The roofing was not assessed as part of this investigation and is presumed to contain asbestos until further sampling is conducted.

### 3.1.14 Other Building Materials

Gold antisweat mastic, containing chrysotile asbestos, is present underneath sinks in locations 8, 10 and 16 (samples 0016A-C). Antisweat mastic is a non-friable material and was observed in good condition. There are approximately 8 sinks with gold antisweat mastic.

The beige floor mastic present under grey rubber tiles in locations 1 was sampled and determined to not contain asbestos (samples 0001A-C).

The beige baseboard mastic present under grey baseboards in location 1 was sampled and determined to not contain asbestos (samples 0002A-C).

The dark brown baseboard mastic present under dark brown baseboards in location 7 was sampled and determined to not contain asbestos (samples 0015A-C).

The mortar present in concrete block masonry from the south end of the building was sampled and determined to not contain asbestos (samples 0006A-C).

The mortar present in the exterior decorative stone in location 32 was sampled and determined to not contain asbestos (samples 0020A-C).

The concrete parging, present on walls and ceilings within location 20 was sampled and determined to not contain asbestos (samples 0018A-C).



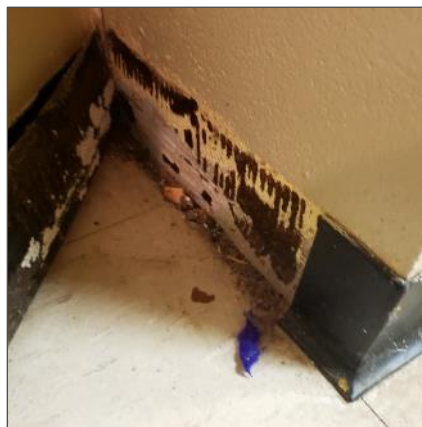
Asbestos-containing gold antisweat mastic present underneath a sink, location 8.



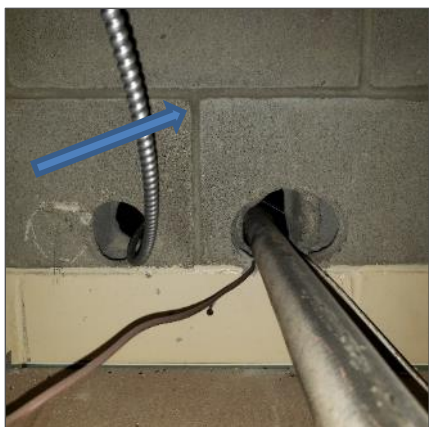
Non-asbestos beige mastic present under grey rubber floor tiles, location 1.



Non-asbestos beige mastic present under grey baseboards, location 1.



Non-asbestos dark brown baseboard mastic present under brown baseboards, location 7.



Non-asbestos mortar present in concrete block wall, location 1.



Non-asbestos mortar present in exterior decorative stone wall, location 32.



Non-asbestos parge present on concrete walls and ceilings,  
location 20.

### 3.1.15 *Presumed Asbestos Materials*

The methodology identifies a list of materials which may contain asbestos, which were not to be sampled, based on limitations of the scope. The following is a list of materials which may contain asbestos, which were not observed during the assessment, but based on site conditions may be present. If determined to be present during building renovation, these materials are presumed to contain asbestos until otherwise proven by sampling and analysis:

- Roofing felts and tar, mastics
- Floor levelling compound
- Ceramic tile setting compound
- Elevator and lift brakes
- Electrical components
- Mechanical packing, ropes and gaskets
- Vermiculite in wall and ceiling cavities
- Soffit and fascia boards
- Vibration dampers on HVAC equipment
- Mastics and caulking not sampled
- Insulation in fire doors
- Materials concealed or outside the assessed area



## 3.2 Lead

### 3.2.1 Paints and Surface Coatings

The following table summarizes the analytical results for paints sampled and locations.

Sample Number	Colour, Substrate Description	Location	Lead (%)
L01	Light blue paint on concrete block walls	Location 1	<0.0065
L02	Grey paint on concrete block walls	Location 1	<0.0065
L03	Dark green paint on concrete block and drywall walls	Location 2	<0.0058
L04	Beige paint on drywall walls	Location 7	0.0091
L05	White paint on concrete block walls	Locations 1, 11, 13-15, 19-22, 29, 29A-C, 30 and 31	<b>0.12</b>
L06	Dark blue paint on concrete block walls	Locations 13, 14, 16, 19-24, 26 and 33	<b>0.97</b>
L07	Grey paint on concrete floor	Location 16	<0.0055
L08	Grey paint on metal beams	Location 28	0.014
L09	Red paint on concrete block walls	Location 29A	<b>0.11</b>

Results above 0.1% are considered elevated (i.e., greater than the EACO guideline of 0.1% for lead-containing paints). Paints with elevated levels of lead was flaking/peeling in the following areas on the following items:

- Dark blue paint on concrete block walls in Location 13.



Dark blue paint with elevated levels of lead flaking from concrete block wall, location 13.

### 3.2.2 *Lead Products and Applications*

Lead-containing batteries are presumed present in emergency lighting and fire alarm control panels.

Lead caulking is present in bell and spigot fittings on cast iron pipes.



Lead-containing batteries presumed present in emergency lighting, location 1.

### 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
- Solder on pipe connections
- Glazing on ceramic tiles

## 3.3 **Silica**

Crystalline silica is a presumed component of the following materials:

- Poured or pre-cast concrete
- Masonry and mortar
- Ceramic tiles and grout
- Stone

## 3.4 **Mercury**

### 3.4.1 *Lamps*

Mercury vapour is present in fluorescent lamps.

### 3.4.2 *Mercury-Containing Devices*

Thermostats inspected did not contain liquid mercury ampules.

Mercury is present as a liquid in instrumentation in boiler and mechanical rooms, location 27.

## 3.5 **Polychlorinated Biphenyls**

### 3.5.1 *Caulking*

Grey caulking is present at exterior concrete block expansion joints (samples P01) and contains <0.5 ppm PCBs. The material is a non-PCB solid based on the threshold (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 may be manufactured prior to 1980 and may contain PCBs.

### 3.5.3 *Transformers*

The dielectric fluid within the transformer located at the exterior is presumed to contain PCBs until further sampling proves otherwise.

All transformers within the building are dry type transformers and do not contain PCB-containing dielectric fluids.



Transformer with presumed PCB containing dielectric fluid present at the exterior, location 32.

### 3.5.4 *Presumed PCB Materials*

- Paints
- Oil impregnated cables
- Voltage regulators and capacitors

### 3.6 Mould

Visible mould growth and water staining is present on one non-asbestos ceiling tile and two asbestos-containing parging cement pipe fittings in location 1. There is approximately 4 sq. ft of visible mould growth.



Mould growth and staining present on ceiling tile, location 1.



Mould growth present on a pipe fitting with asbestos-containing parging cement, location 1.

## 4.0 RECOMMENDATIONS

### 4.1 General

1. Perform a detailed intrusive assessment prior to building renovation or demolition operations. The assessment should include; destructive testing (i.e. coring and/or removal of building finishes and components), and sampling of materials not previously tested (i.e. roofing materials, caulking, mastics). This report does not provide sufficient detail for most renovation or demolition.
2. Investigate any items excluded from the scope of work of this report prior to any renovation or demolition work. 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:
  - The roof.
  - Underneath the ice rink.
  - Above the plastic sheeting at the structure above the ice rink.
  - Above solid ceilings in locations 7, 11 and 25





## 4.2 Remedial Work

The following remedial work is recommended regardless of the planned construction work due to the condition and location of the material.

Material, Quantity & Condition	Location	Recommended Procedure
Dark blue paint with elevated levels of lead, twenty square feet flaking	Location 13	Remove in accordance with low risk abatement procedures
Ceiling tile, non-asbestos with four square feet of visible mould growth	Location 1	Remove in accordance with EACO Level 1 mould procedures
Asbestos-containing parging cement on two pipe elbows in poor condition	Location 1	Remove in accordance with Glove Bag asbestos procedures in conjunction with EACO Level 1 mould procedures
Asbestos-containing drywall joint compound on wall finishes, twelve square feet in poor condition and debris	Location 9	Remove debris and damaged drywall and seal remaining edges following Type 2 asbestos procedures.

## 4.3 On-going Management and Maintenance

The following recommendations are made regarding on-going management and maintenance work involving the hazardous materials identified.

### 4.3.1 Asbestos

Prepare an Asbestos Management Program (AMP). The AMP should address and document; written work practices, worker training, notifications, policies and responsibilities.

Perform a re-assessment of asbestos materials on an annual basis.

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

Update the asbestos inventory report upon completion of any abatement and removal of asbestos-containing materials.

### 4.3.2 Lead

Analytical results indicate that some 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.



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.

#### *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 when taken out of service. 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.

Liquid in oil transformers should be sampled immediately for classification purposes.

#### *4.3.6 Mould*

Use appropriate precautions and protect workers during removal, using methods that comply with provincial guidelines. A qualified consultant should specify, inspect and verify the successful removal of mould-impacted finishes.



## **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:

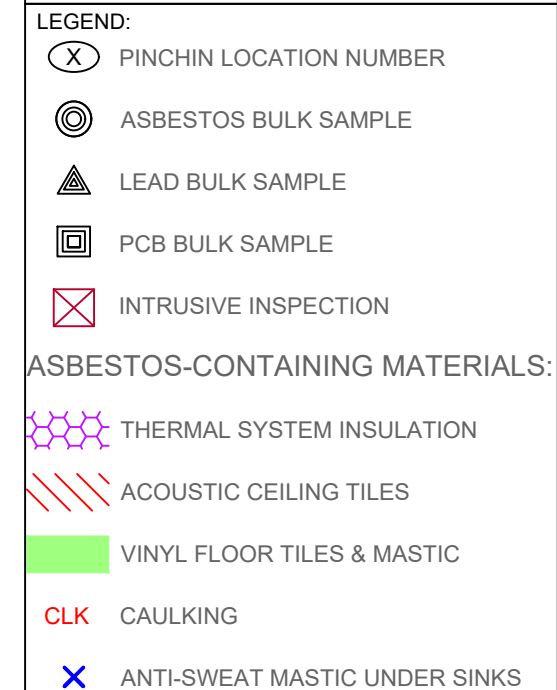
1. Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
2. Designated Substances, Ontario Regulation 490/09.
3. Lead on Construction Projects, Ministry of Labour Guidance Document.
4. The Environmental Abatement Council of Ontario (EACO) Lead Guideline for Construction, Renovation, Maintenance or Repair, October 2014.
5. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
6. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.
7. Silica on Construction Projects, Ministry of Labour Guidance Document.
8. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.

\\pinchin.com\wat\Job\238000s\0238555.000 CofBrockton,290DurhamS,Walkerton,HAZ,ASM\Deliverables\238555 HazMat Report 290 Durham St W Walkerton ON COB Jun 24 2019.docx

Template: Master Report for Hazardous Materials Assessment (Pre-Construction), HAZ, April 23, 2019

**APPENDIX I**  
**Drawings**





**CLIENT:**  
CORPORATION FOR THE MUNICIPALITY OF BROCKTON  
BOX 68, 100 SCOTT STREET  
WALKERTON, ONTARIO

LOCATION:  
WALKERTON COMMUNITY CENTRE  
290 DURHAM STREET WEST  
WALKERTON, ONTARIO

TITLE:	HAZARDOUS BUILDING MATERIALS ASSESSMENT SECOND FLOOR
--------	--

DATE:	PROJECT #:
JUNE 2019	238555

DRAWN BY: GBL	DRAWING:
------------------	----------

CHECKED BY:

SCALE:

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.

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

BASE PLAN PROVIDED BY CLIENT.

FOR CLARITY, THE FOLLOWING ASBESTOS CONTAINING MATERIALS, ARE PRESENT IN THE ASSESSED AREA, BUT HAVE NOT BEEN HATCHED ON THE DRAWING:

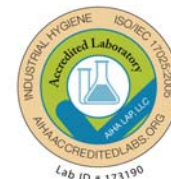
- PRESUMED ASBESTOS-CONTAINING BROWN DUCT MASTIC
- DRYWALL JOINT COMPOUND ON WALL AND BULKHEAD FINISHES
- ASBESTOS-CEMENT (TRANSITE) RAIN WATER LEADERS
- INTERIOR AND EXTERIOR EXPANSION JOINT CAULKING

**APPENDIX II-A**  
**Asbestos Analytical Certificates**



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
App.E



**Customer:** Pinchin Ltd.  
283 Northfield Drive E., Unit #9  
Waterloo, ON N2J 4G8

**Attn:** Greg Livingston  
Ryan Farnsworth

**Lab Order ID:** 71913943  
**Analysis ID:** 71913943\_PLM  
**Date Received:** 5/24/2019  
**Date Reported:** 5/24/2019

**Project:** 238555,290 Durham St W Walkerton, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0001A	Floor mastic on concrete, under grey rubber tiles, Loc 1	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_1					Dissolved
0001B	Floor mastic on concrete, under grey rubber tiles, Loc 1	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_2					Dissolved
0001C	Floor mastic on concrete, under grey rubber tiles, Loc 1	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_3					Dissolved
0002A	Baseboard mastic, beige under grey baseboards, Loc 1	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_4					Dissolved
0002B	Baseboard mastic, beige under grey baseboards, Loc 1	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_5					Dissolved
0002C	Baseboard mastic, beige under grey baseboards, Loc 1	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_6					Dissolved
0003A	Ceiling tile, lay-in, 2x4, pinhole and fleck, Loc 1	None Detected	45% Cellulose 35% Mineral Wool	10% Perlite 10% Other	White Fibrous Homogeneous
71913943PLM_7					Ashed, Dissolved
0003B	Ceiling tile, lay-in, 2x4, pinhole and fleck, Loc 1	None Detected	45% Cellulose 35% Mineral Wool	10% Perlite 10% Other	White Fibrous Homogeneous
71913943PLM_8					Ashed, Dissolved

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Philip Szabo (90)

Analyst

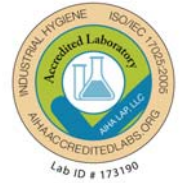
Approved Signatory





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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0003C	Ceiling tile, lay-in, 2x4, pinhole and fleck, Loc 1	None Detected	45% Cellulose 35% Mineral Wool	10% Perlite 10% Other	White Fibrous Homogeneous
71913943PLM_9					Ashed, Dissolved
0004A	Tar paper below foil on fiberglass insulated pipes, Loc 1	None Detected	40% Cellulose 10% Fiber Glass	50% Other	Black, Silver Fibrous Homogeneous
71913943PLM_10					Ashed, Dissolved
0004B	Tar paper below foil on fiberglass insulated pipes, Loc 1	None Detected	40% Cellulose 10% Fiber Glass	50% Other	Black, Silver Fibrous Homogeneous
71913943PLM_11					Ashed, Dissolved
0004C	Tar paper below foil on fiberglass insulated pipes, Loc 1	None Detected	40% Cellulose 10% Fiber Glass	50% Other	Black, Silver Fibrous Homogeneous
71913943PLM_12					Ashed, Dissolved
0005A	Parging cement, white on pipe elbows, Loc 1	70% Chrysotile		30% Other	Gray Fibrous Homogeneous
71913943PLM_13					Teased, Dissolved
0005B	Parging cement, white on pipe elbows, Loc 1	Not Analyzed			
71913943PLM_14					
0005C	Parging cement, white on pipe elbows, Loc 1	Not Analyzed			
71913943PLM_15					
0006A	Concrete block masonry mortar, Loc 1	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_16					Dissolved

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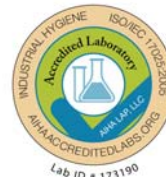
Analyst

Approved Signatory



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EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0006B	Concrete block masonry mortar, Loc 1	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_17					Dissolved
0006C	Concrete block masonry mortar, Loc 2	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_18					Dissolved
0007A	Drywall joint compound, walls and bulkheads, Loc 2	3% Chrysotile		97% Other	Tan Non Fibrous Homogeneous
71913943PLM_19					Dissolved
0007B	Drywall joint compound, walls and bulkheads, Loc 2	Not Analyzed			
71913943PLM_20					
0007C	Drywall joint compound, walls and bulkheads, Loc 2	Not Analyzed			
71913943PLM_21					
0007D	Drywall joint compound, walls and bulkheads, Loc 3	Not Analyzed			
71913943PLM_22					
0007E	Drywall joint compound, walls and bulkheads, Loc 3	Not Analyzed			
71913943PLM_23					
0008A	Ceiling tile, lay-in, 2x4, pinhole and lengthwise fissure, Loc 2	3% Chrysotile	45% Cellulose 35% Mineral Wool	10% Perlite 7% Other	White Fibrous Homogeneous
71913943PLM_24					Ashed, Dissolved

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Philip Szabo (90)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

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EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
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**Date Reported:** 5/24/2019

**Project:** 238555,290 Durham St W Walkerton, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0008B	Ceiling tile, lay-in, 2x4, pinhole and lengthwise fissure, Loc 2	Not Analyzed			
71913943PLM_25					
0008C	Ceiling tile, lay-in, 2x4, pinhole and lengthwise fissure, Loc 2	Not Analyzed			
71913943PLM_26					
0009A	Spray foam insulation, yellow on steel deck, Loc 2	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_27					Dissolved
0009B	Spray foam insulation, yellow on steel deck, Loc 2	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_28					Dissolved
0009C	Spray foam insulation, yellow on steel deck, Loc 2	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_29					Dissolved
0009D	Spray foam insulation, yellow on steel deck, Loc 2	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_30					Dissolved
0009E	Spray foam insulation, yellow on steel deck, Loc 2	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_31					Dissolved
0009F	Spray foam insulation, yellow on steel deck, Loc 9	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_32					Dissolved

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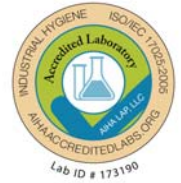
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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0009G	Spray foam insulation, yellow on steel deck, Loc 9	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_33					Dissolved
0010A	Caulking, interior concrete block expansion joints, white, Loc 2	2% Chrysotile		98% Other	Gray, White Non Fibrous Homogeneous
71913943PLM_34					Ashed, Dissolved
0010B	Caulking, interior concrete block expansion joints, white, Loc 2	Not Analyzed			
71913943PLM_35					
0010C	Caulking, interior concrete block expansion joints, white, Loc 2	Not Analyzed			
71913943PLM_36					
0011A - A	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 3	3% Chrysotile		97% Other	Gray Non Fibrous Homogeneous
71913943PLM_37	tile				Dissolved
0011A - B	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 3	2% Chrysotile		98% Other	Black Non Fibrous Homogeneous
71913943PLM_76	mastic - possible contamination				Dissolved
0011B - A	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 3	Not Analyzed			
71913943PLM_38	tile				
0011B - B	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 3	Not Analyzed			
71913943PLM_77	mastic				

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0011C - A	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 10	Not Analyzed			
71913943PLM_39	tile				
0011C - B	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 10	Not Analyzed			
71913943PLM_78	mastic				
0012A	Ceiling tile, lay-in, 2x4, small and medium perforation, Loc 3	3% Amosite	50% Mineral Wool	47% Other	White Fibrous Homogeneous
71913943PLM_40					Teased, Dissolved
0012B	Ceiling tile, lay-in, 2x4, small and medium perforation, Loc 3	Not Analyzed			
71913943PLM_41					
0012C	Ceiling tile, lay-in, 2x4, small and medium perforation, Loc 3	Not Analyzed			
71913943PLM_42					
0013A - A	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3	None Detected		100% Other	White Non Fibrous Homogeneous
71913943PLM_43	tile				Dissolved
0013A - B	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3	3% Chrysotile		97% Other	Black Non Fibrous Homogeneous
71913943PLM_79	mastic				Dissolved
0013B - A	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3	None Detected		100% Other	White Non Fibrous Homogeneous
71913943PLM_44	tile				Dissolved

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Lab Sample ID	Lab Notes				Treatment
0013B - B	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3	Not Analyzed			
71913943PLM_80	mastic				
0013C - A	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3	None Detected		100% Other	White Non Fibrous Homogeneous
71913943PLM_45	tile - ashed				Ashed, Dissolved
0013C - B	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3	Not Analyzed			
71913943PLM_81	mastic				
0014A - A	Vinyl floor tile, 12x12, beige with red fleck, Loc 6	None Detected		100% Other	Beige Non Fibrous Homogeneous
71913943PLM_46	tile				Dissolved
0014A - B	Vinyl floor tile, 12x12, beige with red fleck, Loc 6	None Detected		100% Other	Black Non Fibrous Homogeneous
71913943PLM_82	mastic				Dissolved
0014B - A	Vinyl floor tile, 12x12, beige with red fleck, Loc 6	None Detected		100% Other	Beige Non Fibrous Homogeneous
71913943PLM_47	tile				Dissolved
0014B - B	Vinyl floor tile, 12x12, beige with red fleck, Loc 6	None Detected		100% Other	Black Non Fibrous Homogeneous
71913943PLM_83	mastic				Dissolved
0014C - A	Vinyl floor tile, 12x12, beige with red fleck, Loc 10	None Detected		100% Other	Beige Non Fibrous Homogeneous
71913943PLM_48	tile - ashed				Ashed, Dissolved

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0014C - B	Vinyl floor tile, 12x12, beige with red fleck, Loc 10	None Detected		100% Other	Black Non Fibrous Homogeneous
71913943PLM_84	mastic				Dissolved
0015A	Baseboard mastic, dark brown under black baseboards, Loc 7	None Detected		100% Other	Brown Non Fibrous Homogeneous
71913943PLM_49					Dissolved
0015B	Baseboard mastic, dark brown under black baseboards, Loc 7	None Detected		100% Other	Brown Non Fibrous Homogeneous
71913943PLM_50					Dissolved
0015C	Baseboard mastic, dark brown under black baseboards, Loc 7	None Detected		100% Other	Brown Non Fibrous Homogeneous
71913943PLM_51					Dissolved
0016A	Gold sink undercoating, Loc 8	5% Chrysotile		95% Other	Black, Gold Non Fibrous Homogeneous
71913943PLM_52					Dissolved
0016B	Gold sink undercoating, Loc 8	Not Analyzed			
71913943PLM_53					
0016C	Gold sink undercoating, Loc 8	Not Analyzed			
71913943PLM_54					
0017A - A	Vinyl floor tile, 12x12, grey and white fleck, Loc 16	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_55	tile				Dissolved

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Lab Sample ID	Lab Notes				Treatment
0017A - B	Vinyl floor tile, 12x12, grey and white fleck, Loc 16	None Detected		100% Other	Black Non Fibrous Homogeneous
71913943PLM_85	mastic				Dissolved
0017B - A	Vinyl floor tile, 12x12, grey and white fleck, Loc 16	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_56	tile				Dissolved
0017B - B	Vinyl floor tile, 12x12, grey and white fleck, Loc 16	None Detected		100% Other	Black Non Fibrous Homogeneous
71913943PLM_86	mastic				Dissolved
0017C - A	Vinyl floor tile, 12x12, grey and white fleck, Loc 16	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_57	tile - ashed				Ashed, Dissolved
0017C - B	Vinyl floor tile, 12x12, grey and white fleck, Loc 16	None Detected		100% Other	Black Non Fibrous Homogeneous
71913943PLM_87	mastic				Dissolved
0018A	Concrete parging on ceiling and walls, Loc 20	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_58					Dissolved
0018B	Concrete parging on ceiling and walls, Loc 20	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_59					Dissolved
0018C	Concrete parging on ceiling and walls, Loc 20	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_60					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%.

Philip Szabo (90)

Analyst

Approved Signatory





# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
App.E



**Customer:** Pinchin Ltd.  
283 Northfield Drive E., Unit #9  
Waterloo, ON N2J 4G8

**Attn:** Greg Livingston  
Ryan Farnsworth

**Lab Order ID:** 71913943  
**Analysis ID:** 71913943\_PLM  
**Date Received:** 5/24/2019  
**Date Reported:** 5/24/2019

**Project:** 238555,290 Durham St W Walkerton, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0019A	Vinyl sheet flooring, white and grey patterned, Loc 31	None Detected	10% Synthetic Fibers	90% Other	Gray Non Fibrous Homogeneous
71913943PLM_61					Ashed, Dissolved
0019B	Vinyl sheet flooring, white and grey patterned, Loc 31	None Detected	10% Synthetic Fibers	90% Other	Gray Non Fibrous Homogeneous
71913943PLM_62					Ashed, Dissolved
0019C	Vinyl sheet flooring, white and grey patterned, Loc 31	None Detected	10% Synthetic Fibers	90% Other	Gray Non Fibrous Homogeneous
71913943PLM_63					Ashed, Dissolved
0020A	Stone masonry mortar, exterior Loc 32	None Detected		100% Other	White Non Fibrous Homogeneous
71913943PLM_64					Dissolved
0020B	Stone masonry mortar, exterior Loc 32	None Detected		100% Other	White Non Fibrous Homogeneous
71913943PLM_65					Dissolved
0020C	Stone masonry mortar, exterior Loc 32	None Detected		100% Other	White Non Fibrous Homogeneous
71913943PLM_66					Dissolved
0021A	Firestop, grey caulking at pipe penetrations, Loc 32	3% Chrysotile		97% Other	Gray Non Fibrous Homogeneous
71913943PLM_67					Dissolved
0021B	Firestop, grey caulking at pipe penetrations, Loc 32	Not Analyzed			
71913943PLM_68					

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 SAI. 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%.

Philip Szabo (90)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
App.E



**Customer:** Pinchin Ltd.  
283 Northfield Drive E., Unit #9  
Waterloo, ON N2J 4G8

**Attn:** Greg Livingston  
Ryan Farnsworth

**Lab Order ID:** 71913943  
**Analysis ID:** 71913943\_PLM  
**Date Received:** 5/24/2019  
**Date Reported:** 5/24/2019

**Project:** 238555,290 Durham St W Walkerton, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0021C	Firestop, grey caulking at pipe penetrations, Loc 32	Not Analyzed			
71913943PLM_69					
0022A	Caulking, exterior concrete block expansion joints, Loc 32	3% Chrysotile		97% Other	Gray Non Fibrous Homogeneous
71913943PLM_70					Ashed, Dissolved
0022B	Caulking, exterior concrete block expansion joints, Loc 32	Not Analyzed			
71913943PLM_71					
0022C	Caulking, exterior concrete block expansion joints, Loc 32	Not Analyzed			
71913943PLM_72					
0023A - A	Caulking, light grey with yellow underneath at exterior vents, Loc 32	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_73	caulk 1				Ashed, Dissolved
0023A - B	Caulking, light grey with yellow underneath at exterior vents, Loc 32	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_88	caulk 2				Ashed, Dissolved
0023B - A	Caulking, light grey with yellow underneath at exterior vents, Loc 32	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_74	caulk 1				Ashed, Dissolved
0023B - B	Caulking, light grey with yellow underneath at exterior vents, Loc 32	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_89	caulk 2				Ashed, 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 SAI. 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%.

Philip Szabo (90)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
App.E



**Customer:** Pinchin Ltd.  
283 Northfield Drive E., Unit #9  
Waterloo, ON N2J 4G8

**Attn:** Greg Livingston  
Ryan Farnsworth

**Lab Order ID:** 71913943  
**Analysis ID:** 71913943\_PLM  
**Date Received:** 5/24/2019  
**Date Reported:** 5/24/2019

**Project:** 238555,290 Durham St W Walkerton, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0023C - A	Caulking, light grey with yellow underneath at exterior vents, Loc 32	None Detected		100% Other	Gray Non Fibrous Homogeneous
71913943PLM_75	caulk 1				Ashed, Dissolved
0023C - B	Caulking, light grey with yellow underneath at exterior vents, Loc 32	None Detected		100% Other	Yellow Non Fibrous Homogeneous
71913943PLM_90	caulk 2				Ashed, 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 SAI. 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%.


Philip Szabo (90)

Analyst

Approved Signatory

71913943

Version 1-15-2012

<b>Client:</b>	Pinchin Ltd.	<b>*Instructions:</b> 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:
<b>Contact:</b>	Greg Livingston 283 Northfield Drive East,		ap@pinchin.com
<b>Address:</b>	Waterloo		Email address here
<b>Phone:</b>	519-746-4210		Scientific Analytical Institute   4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sailab.com
<b>Fax:</b>	519-746-7108		
<b>Email:</b>	glivingston@pinchin.com rfarnsworth@pinchin.com		
<b>Project:</b>	238555, 290 Durham St W Walkerton, City of Brockton		
<b>Client Notes:</b>			
<b>P.O. #.</b>	238555		
<b>Date Submitted:</b>	May 23, 2019		
<b>Analysis:</b>	PLM - Stop Positive		
<b>TurnAroundTime:</b>	4days		

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
0001A		Floor mastic on concrete, under grey rubber tiles, Loc 1	
0001B		Floor mastic on concrete, under grey rubber tiles, Loc 1	
0001C		Floor mastic on concrete, under grey rubber tiles, Loc 1	
0002A		Baseboard mastic, beige under grey baseboards, Loc 1	
0002B		Baseboard mastic, beige under grey baseboards, Loc 1	
0002C		Baseboard mastic, beige under grey baseboards, Loc 1	
0003A		Ceiling tile, lay-in, 2x4, pinhole and fleck, Loc 1	
0003B		Ceiling tile, lay-in, 2x4, pinhole and fleck, Loc 1	
0003C		Ceiling tile, lay-in, 2x4, pinhole and fleck, Loc 1	
0004A		Tar paper below foil on fiberglass insulated pipes, Loc 1	
0004B		Tar paper below foil on fiberglass insulated pipes, Loc 1	
0004C		Tar paper below foil on fiberglass insulated pipes, Loc 1	
0005A		Parging cement, white on pipe elbows, Loc 1	
0005B		Parging cement, white on pipe elbows, Loc 1	

Accepted



Rejected



M. Irvin  
5.24 10:30a

0005C	Parging cement, white on pipe elbows, Loc 1
0006A	Concrete block masonry mortar, Loc 1
0006B	Concrete block masonry mortar, Loc 1
0006C	Concrete block masonry mortar, Loc 2
0007A	Drywall joint compound, walls and bulkheads, Loc 2
0007B	Drywall joint compound, walls and bulkheads, Loc 2
0007C	Drywall joint compound, walls and bulkheads, Loc 2
0007D	Drywall joint compound, walls and bulkheads, Loc 3
0007E	Drywall joint compound, walls and bulkheads, Loc 3
0008A	Ceiling tile, lay-in, 2x4, pinhole and lengthwise fissure, Loc 2
0008B	Ceiling tile, lay-in, 2x4, pinhole and lengthwise fissure, Loc 2
0008C	Ceiling tile, lay-in, 2x4, pinhole and lengthwise fissure, Loc 2
0009A	Spray foam insulation, yellow on steel deck, Loc 2
0009B	Spray foam insulation, yellow on steel deck, Loc 2
0009C	Spray foam insulation, yellow on steel deck, Loc 2
0009D	Spray foam insulation, yellow on steel deck, Loc 2
0009E	Spray foam insulation, yellow on steel deck, Loc 2
0009F	Spray foam insulation, yellow on steel deck, Loc 9
0009G	Spray foam insulation, yellow on steel deck, Loc 9
0010A	Caulking, interior concrete block expansion joints, white, Loc 2
0010B	Caulking, interior concrete block expansion joints, white, Loc 2
0010C	Caulking, interior concrete block expansion joints, white, Loc 2
0011A	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 3
0011B	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 3
0011C	Vinyl floor tile, 12x12 light grey with red and white fleck, Loc 10
0012A	Ceiling tile, lay-in, 2x4, small and medium perforation, Loc 3
0012B	Ceiling tile, lay-in, 2x4, small and medium perforation, Loc 3
0012C	Ceiling tile, lay-in, 2x4, small and medium perforation, Loc 3
0013A	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3
0013B	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3
0013C	Vinyl floor tile, 12x12, white, beige and olive fleck, Loc 3
0014A	Vinyl floor tile, 12x12, beige with red fleck, Loc 6
0014B	Vinyl floor tile, 12x12, beige with red fleck, Loc 6
0014C	Vinyl floor tile, 12x12, beige with red fleck, Loc 10
0015A	Baseboard mastic, dark brown under black baseboards, Loc 7
0015B	Baseboard mastic, dark brown under black baseboards, Loc 7
0015C	Baseboard mastic, dark brown under black baseboards, Loc 7

0016A	Gold sink undercoating, Loc 8
0016B	Gold sink undercoating, Loc 8
0016C	Gold sink undercoating, Loc 8
0017A	Vinyl floor tile, 12x12, grey and white fleck, Loc 16
0017B	Vinyl floor tile, 12x12, grey and white fleck, Loc 16
0017C	Vinyl floor tile, 12x12, grey and white fleck, Loc 16
0018A	Concrete parging on ceiling and walls, Loc 20
0018B	Concrete parging on ceiling and walls, Loc 20
0018C	Concrete parging on ceiling and walls, Loc 20
0019A	Vinyl sheet flooring, white and grey patterned, Loc 31
0019B	Vinyl sheet flooring, white and grey patterned, Loc 31
0019C	Vinyl sheet flooring, white and grey patterned, Loc 31
0020A	Stone masonry mortar, exterior Loc 32
0020B	Stone masonry mortar, exterior Loc 32
0020C	Stone masonry mortar, exterior Loc 32
0021A	Firestop, grey caulking at pipe penetrations, Loc 32
0021B	Firestop, grey caulking at pipe penetrations, Loc 32
0021C	Firestop, grey caulking at pipe penetrations, Loc 32
0022A	Caulking, exterior concrete block expansion joints, Loc 32
0022B	Caulking, exterior concrete block expansion joints, Loc 32
0022C	Caulking, exterior concrete block expansion joints, Loc 32
0023A	Caulking, light grey with yellow underneath at exterior vents, Loc 32
0023B	Caulking, light grey with yellow underneath at exterior vents, Loc 32
0023C	Caulking, light grey with yellow underneath at exterior vents, Loc 32

>>

**APPENDIX II-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.  
283 Northfield Drive E., Unit #9  
Waterloo, ON N2J 4G8

**Attn:** Greg Livingston  
Ryan Farnsworth

**Lab Order ID:** 71913960  
**Analysis ID:** 71913960\_PBP  
**Date Received:** 5/24/2019  
**Date Reported:** 5/31/2019

**Project:** 290 durham st w walkerton COB

Sample ID	Description	Mass	Concentration	Concentration
Lab Sample ID	Lab Notes	(g)	(ppm)	(% by weight)
L01	Light blue paint on CB walls, loc 1	0.0620	< 65	< 0.0065%
71913960PBP_1				
L02	Grey paint on CB walls, loc 1	0.0614	< 65	< 0.0065%
71913960PBP_2				
L03	Dark green paint on CB walls, loc 2	0.0695	< 58	< 0.0058%
71913960PBP_3				
L04	Beige paint on DW walls, loc 7	0.0595	91	0.0091%
71913960PBP_4				
L05	White paint on CB walls, loc 11	0.0721	1200	0.12%
71913960PBP_5				
L06	Dark blue paint on CB walls, loc 13	0.0657	9700	0.97%
71913960PBP_6				
L07	Grey paint on concrete floor, loc 16	0.0726	< 55	< 0.0055%
71913960PBP_7				
L08	Grey paint on metal beams, loc 28	0.0556	140	0.014%
71913960PBP_8				
L09	Red paint on CB walls, loc 29A	0.0569	1100	0.11%
71913960PBP_9				

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).

Sara Shaut (9)

**Analyst**

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

**Laboratory Director**

71913960

Version 1-15-2012

<b>Client:</b>	Pinchin Ltd.	<b>*Instructions:</b> Use Column "B" for your contact info
<b>Contact:</b>	Greg Livingston	
<b>Address:</b>	283 Northfield Dr E Waterloo ON	To See an Example Click the bottom Example Tab.
<b>Phone:</b>	289.925.5409	
<b>Fax:</b>		<b>Enter samples between "&lt;&lt;" and "&gt;&gt;"</b> <b>Begin Samples with a "&lt;&lt;" above the first sample</b> <b>and end with a "&gt;&gt;" below the last sample.</b> Only Enter your data on the first sheet "Sheet1"
<b>Email:</b>	glivingston@pinchin.com rfarnsworth@pinchin.com	
<b>Project:</b>	290 durham st w Walkerton COB	<b>Note: Data 1 and Data 2 are optional</b> 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.
<b>Client Notes:</b>	% lead by weight	
<b>P.O. #.</b>	238555	
<b>Date Submitted:</b>	May 23 2019	
<b>Analysis:</b>	% lead by weight	
<b>TurnAroundTime:</b>	4 days	

<b>Invoice to:</b>
Accounts payable
ap@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)
<<			
L01		Light blue paint on CB walls, Loc 1	
L02		Grey paint on CB walls, Loc 1	
L03		Dark green paint on CB walls, Loc 2	
L04		Beige paint on DW walls, Loc 7	
L05		White paint on CB walls, Loc 11	
L06		Dark blue paint on CB walls, Loc 13	
L07		Grey paint on concrete floor, Loc 16	
L08		Grey paint on metal beams, Loc 28	
L09		Red paint on CB walls, Loc 29A	
>>			

Accepted ☒

Rejected ☐

*Benham* 5-24  
10:00am

**APPENDIX II-C**  
**PCB Analytical Certificates**

## Certificate of Analysis

Greg Livingston

Pinchin Ltd. (Waterloo)  
470 Weber Street North, Suite 103, Waterloo, Ontario, N2L 6J2

Printed: May 30, 2019

**Report Description:** 1 solid sample was submitted for the following chemical analysis

**Project Name:** City of Brockton HazMat  
**Project No.:** 238555  
**Site Location:** 290 Durham St W Walkerton, ON

**Date Sampled:** May 21, 2019  
**Date Tested:** May 30, 2019  
**Sampled by:** Greg Livingston

### Report Number: 19-0870

No.	Analyte	Result	Units	MDL	Comments	Technique / Test Method
1	<u>Sample ID:</u> P01 - Exterior grey concrete expansion joint caulking					
	PCBs in Solid	<0.5	mg/kg	0.5		LAB-M06 (EPA 3550C/8082A modified)

Results relate only to the samples tested above, as received.

Approved By:

**Son C.H. Le, B. Eng. (Chem.)**

Lab Manager

Phone: (519) 740-1333 Ext.: 230

Fax: (519) 740-2320

Email: SonLe@aevitas.ca

The Analytical Chemistry Laboratory of Aevitas Inc. (Ayr) is accredited for specific tests in accordance with the recognised International Standard ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation (CALA) Inc. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009). The laboratory quality management system of Aevitas Inc. (Ayr) meets the principles of ISO 9001:2008.

All Analytical data is subject to uncertainty which, may vary with sample matrices, sample preparation techniques and instrumental parameters. As a general guideline, uncertainty may be expressed as approximately +/- 50% of the reported value at or near the Method Detection Limit (MDL) and +/-10% or less, of the reported result that is greater than 10 times the MDL. Method Detection Limits are defined as approximately 3 times the standard deviation value (at 99% confidence level), which is obtained from replicate analysis of a low-level standard as per the Ontario MOE - MISA Protocol for the Sampling and Analysis of Industrial / Municipal Wastewater (1999). MDL determination is based on undiluted samples with relatively low matrix interferences. Where dilutions are required, the reported MDL value will be scaled proportionally.

All testing procedures follow strict guidelines and quality assurance / quality control (QA/QC) protocols. QA/QC data is available for review at any time upon client's request.

**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); and
- Materials not typically associated with construction (e.g. settled dust, spills, residual contamination from prior spills, etc.).

The assessment was limited to non-intrusive testing. Concealed spaces such as those above solid ceilings and within shafts and pipe chases are accessed via existing access panels only. Demolition of walls, solid ceilings, structural items, interior finishes or exterior building finishes, to determine the presence of concealed materials is not conducted.

### **1.2 Asbestos**

An inspection is conducted 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.

Samples are collected 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.

Flooring mastic or adhesive is sampled and analyzed if present on the underside of flooring samples (vinyl floor tile and vinyl sheet flooring).

Limited demolition of masonry block walls (core holes) is conducted to investigate for loose fill vermiculite insulation. The core holes are temporarily patched with expanding foam or caulking.

The bulk samples are submitted 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.

Analytical results are compared to the following criteria.

<b>Jurisdiction</b>	<b>Friable</b>	<b>Non-Friable</b>
Ontario	0.5%	0.5%

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” or “does not contain 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);
- 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**

Samples of distinctive paint finishes and surface coatings present in more than a limited application, where removal of the paint is possible is collected. The samples are collected 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.

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**

Building materials known to contain crystalline silica (e.g. concrete, cement, tile, brick, masonry, mortar) is identified by 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**

The potential for light ballast and wet transformers to contain PCBs is 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.

Dry type transformers are presumed to be free of dielectric fluids and hence non-PCB.

Fluids (mineral oil, hydraulic, Aroclor or Askarel) in transformers or other equipment are not sampled for PCB content.

Caulking or sealants are sampled for PCBs based on the date of construction or installation. Caulking installed after 1985 (1980 ban date plus a reasonable non-compliance period based on our experience) is presumed to be free of PCBs and hence not sampled. If sampled, analysis for PCBs is performed using an ASTM test method appropriate to the sample matrix at an accredited laboratory. Sample results are compared to the criteria of 50 ppm for solids as stated in the PCB Regulation, SOR/2008-273.

## **1.7 Visible Mould**

The presence of mould is determined by visual inspection of exposed building surfaces. If any mould growth is concealed within building cavities it is not addressed in this assessment.

Methodology for Hazardous Building Materials Assessment