



**REVISED**  
**Hazardous Building  
Materials Assessment**

4267 Bridge Street, Niagara  
Falls, Ontario

Prepared for:

**The Regional Municipality of  
Niagara**

1815 Sir Isaac Brock Way  
Thorold, Ontario

Attention: Nicole Menard  
Project Manager - Buildings

December 20, 2018

Pinchin File: 218282.011



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## EXECUTIVE SUMMARY

The Regional Municipality of Niagara (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment at 4267 Bridge Street, Niagara Falls, Ontario. Pinchin performed the assessment on November 28, 2018 and December 18, 2018.

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

## SUMMARY OF FINDINGS

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

- Caulking on the exterior of the building in good condition;
- Butyl tape in the east stairwell in good condition;
- Pipe insulation (presumed) in the crawlspace; and
- Presumed floor tile mastic in Locations 10, 11 and 12.

Lead: Lead is present as follows:

- Paints/surface coatings (or specific paint)
- Batteries of emergency lights and fire alarm systems;

Silica: Crystalline silica is present in concrete, mortar, brick, masonry and plaster.

Mercury: Mercury vapour is present in fluorescent lamps and liquid mercury is present in thermostat ampules.

Polychlorinated Biphenyls (PCBs): Based on the date of construction, PCBs may be present in light ballasts.

Mould and Water Damage: Visible mould was observed within the Women's Washroom (Location 3).

## 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. Remove and dispose of PCB ballasts and mercury-containing items when taken out of service.
5. Follow appropriate safe work procedures when handling or disturbing asbestos, lead, silica and mould.
6. Remediate the materials as described in Section 4.2. Conduct an intrusive mould investigation to determine the extent of mould growth prior to commencing with mould remedial work.

*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

The Regional Municipality of Niagara (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment at 4267 Bridge Street, Niagara Falls, Ontario.

Matthew Gibbs, Senior Project Technologist performed the assessment on November 28, 2018. The surveyor was unaccompanied during the assessment. The building was occupied at the time of the assessment. Kris Douglas, Project Technologist returned to site on December 18, 2018 to assess the Canadian Border Services (CBSA) section of the building. The surveyor was accompanied by a representative of the Municipality of the Niagara Region and a representative of the CBSA. The building was unoccupied during 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(s) and its finishes. The assessed area consisted of all parts of the building.

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

- Asbestos
- Lead
- Silica
- Mercury
- Polychlorinated Biphenyls (PCBs)
- 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

| Building Description Item | Details                                  |
|---------------------------|--|
| Building Use              | Office and Train Station                 |
| Number of Floors/Levels   | 2 stories plus a crawl space             |
| Total Area of Building    | 8,814 square feet                        |
| Year of Construction      | 1900                                     |
| Structure                 | Structural steel, wood                   |
| Exterior Cladding         | Brick                                    |
| HVAC                      | Forced air                               |
| Roof                      | No access, sloped roof                   |
| Flooring                  | Vinyl tile, concrete, carpet             |
| Interior Walls            | Drywall, concrete block, plaster         |
| Ceilings                  | Drywall, plaster, acoustic ceiling tiles |

### 2.2 Existing Reports

Pinchin used as reference the following existing reports:

- VIA Rail Canada, Asbestos Management Program, Niagara Falls Train Station, Re-inspection, December 7, 2008. Prepared by Dessau, File No. 038-P020503-0100-SG-0007-0A.

### 2.3 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            |
|--------------|-------------------|
| Crawlspace   | Filled with water |
| IT Room      | Restricted access |
| CBSA Offices | Restricted access |

### 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 building and are not discussed in the report findings:

- Spray-on fireproofing or thermal insulation
- Texture finishes (acoustic/decorative)
- Asbestos cement products (e.g. Transite)
- Vinyl sheet flooring
- Firestopping

##### 3.1.2 Thermal Systems Insulation (TSI)

###### 3.1.2.1 Pipe Insulation

Pipes observed throughout the building are either uninsulated or insulated with non-asbestos fibreglass.

It is important to note that asbestos-containing pipe insulation has been previously identified within the crawlspace, Location 23 and Pinchin observed approximately 10 linear feet of piping covered with yellow asbestos labelled bags within the crawlspace, Location 23. Pipe insulation is presumed to be a friable materials.





Presumed asbestos-containing pipe insulation within the crawlspace



Presumed asbestos-containing pipe insulation within the crawlspace

### 3.1.2.2 Duct Insulation

Ducts observed within the building were not insulated.

### 3.1.2.3 Mechanical Equipment Insulation

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



Furnace externally uninsulated



Hot water tank externally uninsulated

### 3.1.3 Vermiculite

Loose fill vermiculite debris was not observed in the spaces or areas inspected. Destructive testing was not performed and vermiculite may be present within masonry block walls, above solid ceilings or other void spaces.

### 3.1.4 Acoustic Ceiling Tiles

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



| <b>Size, Type, Pattern, Photo #</b>                      | <b>Locations</b>   | <b>Sample Number or Date Code</b>     | <b>Asbestos Type</b>          |
|--|--|---------------------------------------|-------------------------------|
| 24"x48", lay-in, pinhole, Photo 1                        | Waiting Room, Location 1   | 0010A-C                               | None Detected                 |
| 24"x48", lay-in, large fleck, Photo 2                    | Women's Washroom, Location 3<br>Men's Washroom, Location 8   | 03/22/2006                            | None-asbestos                 |
| 24"x48", lay-in, dense fleck and pinhole, Photo 3        | Ticket Office, Location 2  | 10/29/2002                            | None-asbestos                 |
| 24"x48", lay-in, width-wise fissure and pinhole, Photo 4 | Baggage Room, Location 4<br>East Stairs, Location 7<br>Washroom, Location 9<br>West Stairs, Location 13<br>Open Area, Location 14<br>Corridor, Location 16<br>Lounge, Location 18<br>Lunch Room, Location 19<br>Washroom, Location 20<br>Washroom, Location 21<br>Janitor, Location 22 | 0011A-C                               | None Detected                 |
| 24"x48", lay-in, fleck, Photo 5                          | VIA OTS, Location 10<br>VIA Train Operations, Location 11<br>VIA Office, Location 12   | 03/28/2010                            | None Detected                 |
| 12"x12", glued-on, ordered pinhole, Photo 6              | VIA OTS, Location 10   | Tile - Wood fibre<br>Mastic - 0005A-C | Non-asbestos<br>None Detected |
| 24"x48", lay-in, small fleck with pinhole, Photo 7       | Customs Area, Location 24  | 05/15/2018                            | None-asbestos                 |

Some of the ceiling tiles noted in the table 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 stopped being used in acoustic ceiling tiles or based on the nature of the material (wood fibre).



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6





Photo 7

### 3.1.5 Plaster

Non-asbestos smooth plaster is present as a wall and ceiling finish throughout the building (samples 0002A-E).

Non-asbestos grey plaster is present on the chimney within the Attic, Location 5 (samples 0003A-C).

Non-asbestos grey textured plaster is present as a ceiling finish with VIA OTS, Location 10 (samples 0004A-C). The 12"x12" ordered pinhole (wood fibre) ceiling tile are applied to the material.



Non-asbestos plaster ceiling within the Men's Washroom,  
Location 8



Non-asbestos plaster present on the chimney within the Attic,  
Location 15



Non-asbestos grey textured plaster ceiling finish behind the 12"x12" order pinhole (wood fibre) ceiling tiles within the VIA OTS, Location 10

### 3.1.6 Drywall Joint Compound

Drywall joint compound present on wall and ceiling finishes throughout the building does not contain asbestos (samples 0001A-G and 0017A-C).

### 3.1.7 Vinyl Floor Tile and Mastic

Vinyl floor tiles are present as follows:

| Size, Pattern, Colour and Photo #        | Locations   | Sample Number | Asbestos Type (tile) | Asbestos Type (mastic) |
|--|---|---------------|----------------------|------------------------|
| 12"x12", dark grey flakes, Photo 1       | Ticket Office, Location 2<br>Corridor, Location 16  | 0006A-C       | None Detected        | None Detected          |
| 12"x12", white with brown lines, Photo 2 | East Stairs, Location 7<br>Washroom, Location 9<br>West Stairs, Location 13<br>Washroom, Location 20<br>Washroom, Location 21<br>Janitor, Location 22 | 0007A-C       | None Detected        | None Detected          |
| 12"x12", light grey flakes, Photo 3      | VIA OTS, Location 10<br>VIA Train Operations, Location 11<br>VIA Office, Location 12  | 0008A-C       | None Detected        | Presumed               |
| 12"x12", white with                      | East Stairs, Location 7   | 0009A-C       | None                 | None                   |

| Size, Pattern, Colour and Photo #            | Locations   | Sample Number | Asbestos Type (tile) | Asbestos Type (mastic) |
|--|---|---------------|----------------------|------------------------|
| beige specks, Photo 4                        | Lunch Room, Location 19   |               | Detected             | Detected               |
| 12"x12", cream with brown streak, Photo 5    | Furnace Room, Location 25   | 0018A-C       | None Detected        | None Detected          |
| 12"x12", grey with light grey fleck, Photo 6 | Customs Area, Location 24<br>Washroom, Location 26<br>Telephone Room, Location 27 | 0019A-C       | None Detected        | None Detected          |



Photo 1



Photo 2

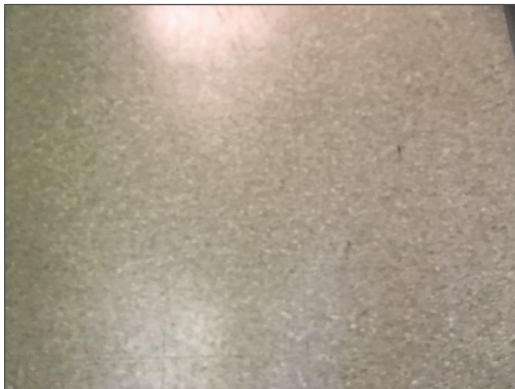


Photo 3



Photo 4



Photo 5



Photo 6

### 3.1.8 Levelling Compound

Non-asbestos grey levelling compound is present below 12"x12" dark grey flakes and 12"x12" light grey flakes vinyl floor tiles (samples 0006A, C, phase c and samples 0009A, B, phase c).

Levelling compound is often used in random and isolated areas and without removing all flooring may not always be detected.

### 3.1.9 Sealants, Caulking, and Putty

Sealants and caulking are present as follows:

| Colour, Type, Photo #            | Locations (Quantity)  | Sample Number | Asbestos Type |
|----------------------------------|---|---------------|---------------|
| Black, butyl tape, Photo 1       | Located between the glass and metal window frames within the East Stairs, Location 7 and 17 (250 LF)            | 0012A-C       | Chrysotile    |
| Red and green, caulking, Photo 2 | Located around exterior side of all window and door frames  | 0013A-C       | Chrysotile    |
| Grey (hard), caulking            | Located around exterior side of door frames   | 0014A-C       | Chrysotile    |
| Grey (soft), caulking            | Located around exterior side of all window and door frames on top of asbestos-containing red and green caulking | 0015A-C       | None Detected |



| Colour, Type, Photo #    | Locations (Quantity)  | Sample Number | Asbestos Type |
|--------------------------|---|---------------|---------------|
| Brown, caulking, Photo 3 | Located between the brick and metal window frames within the East Stairs, Location 7 and 17 | 0016A-C       | None Detected |

Caulking and sealants are a non-friable material and in good condition.



Photo 1



Photo 2



Photo 3

### 3.1.10 Presumed Asbestos Materials

A number of materials which might contain asbestos were not sampled during this assessment due to limitations in scope and methodology. Where present, these materials are presumed to contain asbestos until otherwise proven by sampling and analysis.

Materials presumed to contain asbestos include:

- Roofing, felts and tar



- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring
- Vermiculite in concrete block wall cavities
- Soffit and fascia boards
- Mechanical packing, ropes and gaskets
- Fire resistant doors or metal clad finishes

### 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       | Locations                                    | Lead (%) |
|---------------|-------------------------------------|--|----------|
| L-001         | Red paint on wood door frame        | Women's Washroom, Location 3                 | 0.013    |
| L-002         | White paint on plaster wall         | Men's Washroom, Location 8                   | 0.12     |
| L-003         | Grey paint on drywall wall          | Women's Washroom, Location 3                 | <0.0053  |
| L-004         | White paint on drywall wall         | Baggage Room, Location 4                     | <0.0050  |
| L-005         | Dark beige paint on plaster ceiling | Ticket Office, Location 2                    | 0.45     |
| L-006         | Red paint on structural steel       | Baggage Room, Location 4                     | 0.020    |
| L-007         | Beige paint on wood window frame    | 2 <sup>nd</sup> Floor Open Area, Location 14 | 0.43     |

All paints containing elevated levels of lead were found to be in good condition and not flaking, peeling or delaminating.

Paints with elevated levels of lead were observed to be flaking within the Ticket Office, Location 2. Approximately 10 square feet of paint is peeling off the plaster ceiling and lying on the backside of the ceiling tiles.

#### 3.2.2 Lead Products and Applications

Lead-containing batteries are present in emergency lighting.



Lead-acid batteries within emergency lighting

### 3.2.3 *Presumed Lead Materials*

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

- Electrical components, including wiring connectors, grounding conductors, and solder
- Solder on pipe connections

### 3.3 **Silica**

Crystalline silica is a presumed component of the following materials:

- Poured or pre-cast concrete
- Masonry and mortar
- 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 ampules.



Liquid mercury in thermostats within the 2<sup>nd</sup> Floor

### **3.5 Polychlorinated Biphenyls**

#### *3.5.1 Caulking*

Brown, grey and green/red caulking is present at exterior window and door frames (samples PCB-01, PCB-02, PCB-03) and contains <0.5 ppm PCBs. The materials are 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*

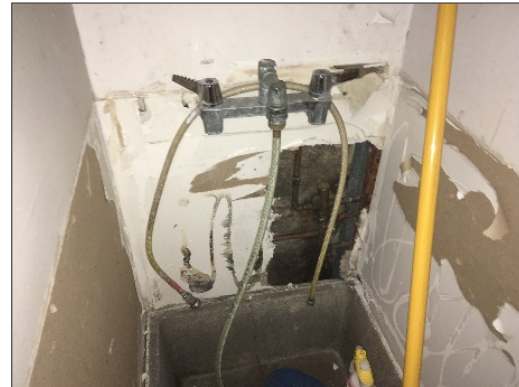
Transformers were not found during the assessment.

### **3.6 Mould**

Visible mould growth is present on drywall wall finishes around the custodial sink and door frame within the Women's Washroom, Location 3. There is approximately 3 square feet of visible mould growth.



Visible mould growth around the door frame in the Women's Washroom, Location 3



Visible mould growth around the custodial sink in the Women's Washroom, Location 3

#### 4.0 RECOMMENDATIONS

##### 4.1 General

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.

##### 4.2 Remedial Work

The following remedial work is recommended.

| Material, Quantity & Condition        | Location                     | Recommended Procedure   |
|---------------------------------------|------------------------------|---|
| Dark beige paint, 5 SF, peeling       | Ticket Office, Location 2    | Remove in accordance with moderate risk lead abatement procedures.  |
| Mould-impacted drywall, 3 square feet | Women's Washroom, Location 3 | Conduct an intrusive mould investigation to determine the extent of mould growth prior to commencing with remedial work.<br><br>Remove in accordance with CCA Level 1 mould abatement 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.

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

#### 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. Well adhered paints containing elevated levels of lead on metal substrates do not require leachable lead analysis as the materials can be recycled with the paint intact.

Lead-containing items (i.e. lead-acid batteries) should be recycled when taken out of service.

#### 4.3.3 *Silica*

Disturbance of silica-containing products during maintenance activities 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*

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



#### 4.3.5 PCBs

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

#### 4.3.6 Mould

Conduct an intrusive mould investigation to determine the extent of mould growth. The investigation should identify the source of the water intrusion that contributed to the mould growth and water damage observed during this assessment.

### 5.0 TERMS AND LIMITATIONS

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

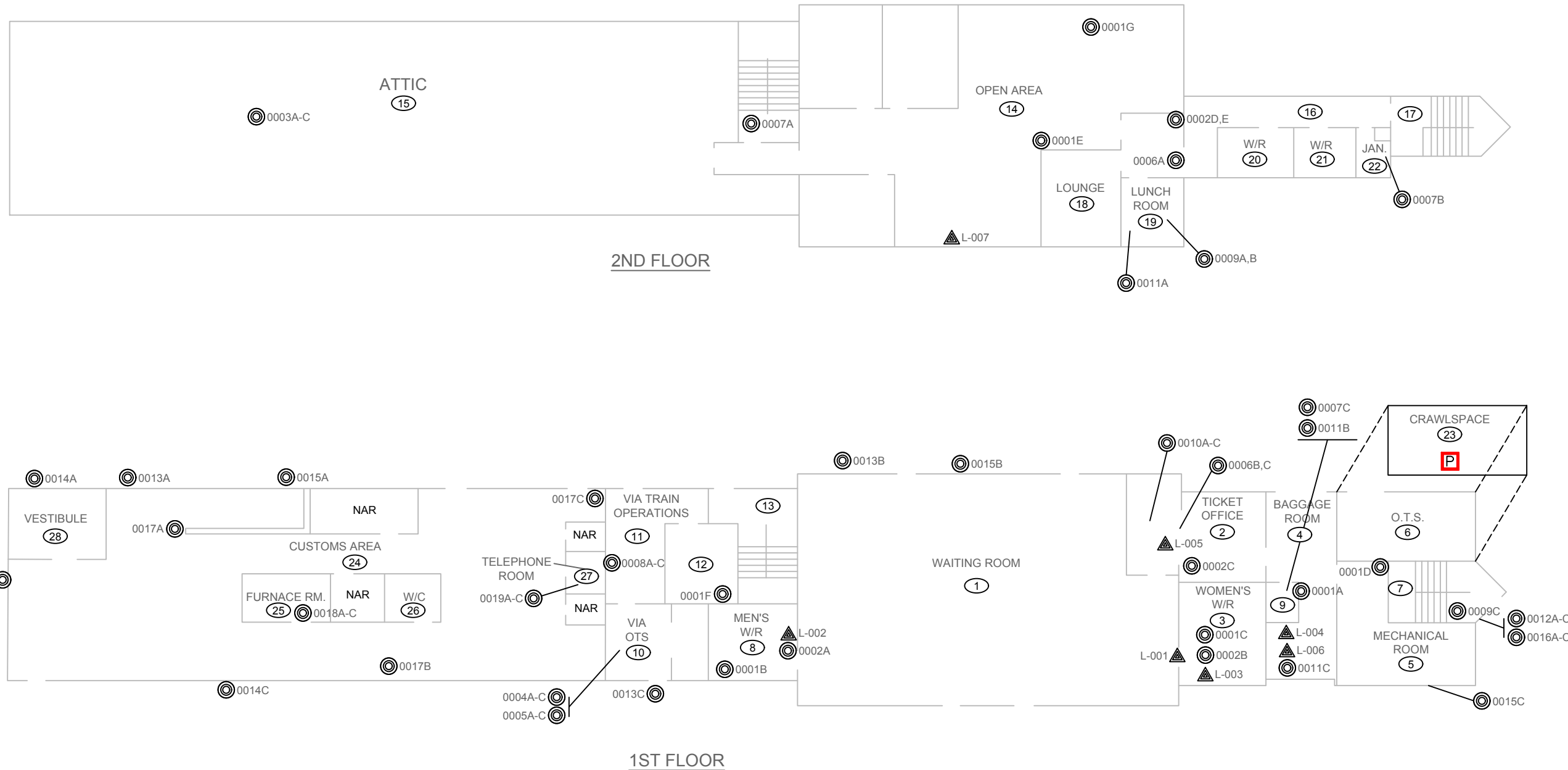
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### 6.0 REFERENCES

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.

**APPENDIX I**  
**Drawings**



**LEGEND:**

- (X) PINCHIN LOCATION NUMBER
- ◎ ASBESTOS BULK SAMPLE
- ▲ LEAD BULK SAMPLE
- NAR NO ACCESS TO ROOM/AREA

**ASBESTOS-CONTAINING MATERIALS:**

- P PIPE INSULATION

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

- WINDOW BUTYL TAPE
- EXTERIOR CAULKING

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.

**CLIENT:**  
THE REGIONAL MUNICIPALITY  
OF NIAGARA  
THOROLD, ONTARIO

**LOCATION:**  
4267 BRIDGE STREET  
NIAGARA FALLS, ONTARIO

**TITLE:**  
HAZARDOUS BUILDING  
MATERIALS ASSESSMENT  
SITE PLAN

**DATE:** DECEMBER 2018      **PROJECT # :** 218282.011

**DRAWN BY:** J.M.B.      **DRAWING:**

**CHECKED BY:** M.P.G.      **1 OF 1**

**SCALE:** NTS

LAZIED DRAWING TEMPLATE MARCH 2018



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



## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

|                           |   |                             |                   |
|---------------------------|---|-----------------------------|-------------------|
| <b>Project Name:</b>      | Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, On |                             |                   |
| <b>Project No.:</b>       | 0218282.011   |                             |                   |
| <b>Prepared For:</b>      | M. Gibbs / C. Mego  | <b>Date Received:</b>       | December 10, 2018 |
| <b>Lab Reference No.:</b> | b201847   | <b>Date Analyzed:</b>       | December 10, 2018 |
| <b>Analyst(s):</b>        | W. Mirza / T. Tran  | <b># Samples submitted:</b> | 27                |
|                           |   | <b># Phases analyzed:</b>   | 42                |

**Method of Analysis:**

**EPA 600/R-93/116 - Method for the Determination of Asbestos in Bulk Building Materials dated July, 1993**

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold (see chart below) indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

| Provincial Jurisdiction  | Regulatory Threshold | Provincial Jurisdiction | Regulatory Threshold        |
|--|----------------------|-------------------------|-----------------------------|
| Ontario, British Columbia,<br>Nova Scotia                                    | 0.5%                 | Alberta                 | Undefined                   |
| Quebec   | 0.1%                 | Saskatchewan            | 0.5% friable 1% non-friable |
| PEI, NWT, Yukon, Nunavut,<br>Newfoundland and Labrador,<br>and New Brunswick | 1%                   | Manitoba                | 0.1% friable 1% non-friable |

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

Pinchin Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2005.

This report relates only to the items tested.

**NOTE:** *This test report may not be reproduced, except in full, without the written approval of the laboratory. The client may not use this report to claim product endorsement by NVLAP or any agency of the U.S. Government. This report is valid only when signed in blue ink by the analyst. Vinyl asbestos floor tiles contain very fine fibres of asbestos and may be missed by some laboratories using the PLM method. Internal verification studies performed by Pinchin indicate that the chance of missing asbestos in floor tiles is no higher than about 2%. The vinyl tile study and laboratory documentation on measurement uncertainty is available upon request. The analysis of dust samples by PLM cannot be used as an indicator of past or present airborne asbestos fibre levels.*



## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, On  
**Project No.:** 0218282.011  
**Prepared For:** M. Gibbs / C. Mego

**Lab Reference No.:** b201847  
**Date Analyzed:** December 10, 2018

### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |                            |
|--|--|---------------------------------|----------------------------|
|  |  | ASBESTOS                        | OTHER                      |
| 0001A<br>drywall joint compound /<br>baggage room, Loc 4 wall            | Homogeneous, white,<br>drywall joint compound.                         | None Detected                   | Non-Fibrous Material > 75% |
| 0001B<br>drywall joint compound /<br>men's washroom, Loc 8,<br>column    | Homogeneous, white,<br>drywall joint compound.                         | None Detected                   | Non-Fibrous Material > 75% |
| 0001C<br>drywall joint compound /<br>women's washroom, Loc 3<br>wall     | 2 Phases:<br>a) Homogeneous, off-<br>white, drywall joint<br>compound. | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, white,<br>layered, drywall joint<br>compound.          | None Detected                   | Non-Fibrous Material > 75% |
| 0001D<br>drywall joint compound /<br>mechanical room, Loc 5<br>wall      | Homogeneous, white,<br>drywall joint compound.                         | None Detected                   | Non-Fibrous Material > 75% |
| 0001E<br>drywall joint compound /<br>2nd floor open area, Loc 14<br>wall | 2 Phases:<br>a) Homogeneous, off-<br>white, drywall joint<br>compound. | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, white,<br>layered drywall joint<br>compound.           | None Detected                   | Non-Fibrous Material > 75% |
| 0001F<br>drywall joint compound /<br>VIA train office, Loc 12<br>column  | Homogeneous, white,<br>drywall joint compound.                         | None Detected                   | Non-Fibrous Material > 75% |



## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, On  
**Project No.:** 0218282.011  
**Prepared For:** M. Gibbs / C. Mego

**Lab Reference No.:** b201847  
**Date Analyzed:** December 10, 2018

### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION   | SAMPLE DESCRIPTION  | % COMPOSITION (VISUAL ESTIMATE)    |  |
|---|---|------------------------------------|--|
|   |   | ASBESTOS                           | OTHER  |
| 0001G<br>drywall joint compound /<br>2nd floor open area, Loc 14<br>ceiling | Homogeneous, white,<br>layered drywall joint<br>compound.   | None Detected                      | Non-Fibrous Material > 75%                                   |
| Comments:   | Cellulose is present on the surface of this sample.   |                                    |  |
| 0002A<br>smooth plaster / men's<br>washroom, Loc 8                          | 2 Phases:<br>a) Homogeneous, grey,<br>hard, cementitious, plaster<br>base coat.<br>b) Homogeneous, white,<br>hard, cementitious, plaster<br>top coat. | None Detected<br><br>None Detected | Non-Fibrous Material > 75%<br><br>Non-Fibrous Material > 75% |
| 0002B<br>smooth plaster / women's<br>washroom, Loc 3                        | 2 Phases:<br>a) Homogeneous, grey,<br>hard, cementitious, plaster<br>base coat.<br>b) Homogeneous, white,<br>hard, cementitious, plaster<br>top coat. | None Detected<br><br>None Detected | Non-Fibrous Material > 75%<br><br>Non-Fibrous Material > 75% |
| 0002C<br>smooth plaster / ticket<br>office, Loc 2                           | 2 Phases:<br>a) Homogeneous, grey,<br>hard, cementitious, plaster<br>base coat.<br>b) Homogeneous, white,<br>hard, cementitious, plaster<br>top coat. | None Detected<br><br>None Detected | Non-Fibrous Material > 75%<br><br>Non-Fibrous Material > 75% |



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### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION                                     | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |  |
|---|--|---------------------------------|--|
|   |  | ASBESTOS                        | OTHER  |
| 0002D<br>smooth plaster / 2nd floor open corridor, Loc 16 | a) Homogeneous, beige, hard, cementitious, plaster base coat.  | None Detected                   | Hair < 0.5%<br>Non-Fibrous Material > 75%      |
|   | b) Homogeneous, white, hard, cementitious, plaster top coat.   | None Detected                   | Non-Fibrous Material > 75%                     |
| Comments:   | Phase a) is small in size.                                     |                                 |  |
| 0002E<br>smooth plaster / 2nd floor open corridor, Loc 16 | a) Homogeneous, beige, hard, cementitious, plaster base coat.  | None Detected                   | Hair < 0.5%<br>Non-Fibrous Material > 75%      |
|   | b) Homogeneous, white, hard, cementitious, plaster top coat.   | None Detected                   | Non-Fibrous Material > 75%                     |
| 0003A<br>grey plaster / attic chimney, Loc 15             | Homogeneous, grey, hard, cementitious, plaster material.       | None Detected                   | Cellulose 0.5-5%<br>Non-Fibrous Material > 75% |
| 0003B<br>grey plaster / attic chimney, Loc 15             | Homogeneous, grey, hard, cementitious, plaster material.       | None Detected                   | Hair 0.5-5%<br>Non-Fibrous Material > 75%      |
| 0003C<br>grey plaster / attic chimney, Loc 15             | Homogeneous, grey, hard, cementitious, plaster material.       | None Detected                   | Non-Fibrous Material > 75%                     |
| 0004A<br>grey textured plaster ceiling / VIA OTS, Loc 10  | Homogeneous, light grey, hard, cementitious, plaster material. | None Detected                   | Non-Fibrous Material > 75%                     |



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### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION                                      | SAMPLE DESCRIPTION  | % COMPOSITION (VISUAL ESTIMATE) |  |
|--|---|---------------------------------|--|
|  |   | ASBESTOS                        | OTHER  |
| 0004B<br>grey textured plaster ceiling / VIA OTS, Loc 10   | Homogeneous, light grey, hard, cementitious, plaster material.  | None Detected                   | Non-Fibrous Material > 75%                       |
| Comments:  | Another phase is present but was not analyzed as requested. Cellulose is present on the surface of this sample. |                                 |  |
| 0004C<br>grey textured plaster ceiling / VIA OTS, Loc 10   | Homogeneous, light grey, hard, cementitious, plaster material.  | None Detected                   | Non-Fibrous Material > 75%                       |
| Comments:  | Cellulose is present on the surface of this sample.   |                                 |  |
| 0005A<br>brown 12x12 ceiling tile mastic / VIA OTS, Loc 10 | Homogeneous, brown, hard, adhesive material.  | None Detected                   | Wollastonite 5-10%<br>Non-Fibrous Material > 75% |
| Comments:  | Another phase is present but was not analyzed as requested. Cellulose is present on the surface of this sample. |                                 |  |
| 0005B<br>brown 12x12 ceiling tile mastic / VIA OTS, Loc 10 | Homogeneous, brown, hard, adhesive material.  | None Detected                   | Wollastonite 5-10%<br>Non-Fibrous Material > 75% |
| Comments:  | Cellulose is present on the surface of this sample.   |                                 |  |
| 0005C<br>brown 12x12 ceiling tile mastic / VIA OTS, Loc 10 | Homogeneous, brown, hard, adhesive material.  | None Detected                   | Wollastonite 5-10%<br>Non-Fibrous Material > 75% |
| Comments:  | Another phase is present but was not analyzed as requested. Cellulose is present on the surface of this sample. |                                 |  |



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**Lab Reference No.:** b201847  
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### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION   | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |  |
|---|--|---------------------------------|--|
|   |  | ASBESTOS                        | OTHER  |
| 0006A<br>12x12 dark grey flakes<br>floor tile / 2nd floor corridor,<br>Loc 16 | 3 Phases:<br>a) Homogeneous, dark grey, consolidated, vinyl floor tile.        | None Detected                   | Non-Fibrous Material > 75%                     |
|   | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75%                     |
|   | c) Homogeneous, grey, levelling compound.                                      | None Detected                   | Cellulose < 0.5%<br>Non-Fibrous Material > 75% |
| 0006B<br>12x12 dark grey flakes<br>floor tile / ticket office, Loc<br>2       | 2 Phases:<br>a) Homogeneous, dark grey, consolidated, vinyl floor tile.        | None Detected                   | Non-Fibrous Material > 75%                     |
|   | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75%                     |
| 0006C<br>12x12 dark grey flakes<br>floor tile / ticket office, Loc<br>2       | 3 Phases:<br>a) Homogeneous, dark grey, consolidated, vinyl floor tile.        | None Detected                   | Non-Fibrous Material > 75%                     |
|   | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75%                     |
|   | c) Homogeneous, grey, levelling compound.                                      | None Detected                   | Cellulose < 0.5%<br>Non-Fibrous Material > 75% |



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Certificate of Analysis**

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**Lab Reference No.:** b201847  
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**BULK SAMPLE ANALYSIS**

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION  | % COMPOSITION (VISUAL ESTIMATE) |                                 |
|--|---|---------------------------------|---------------------------------|
|  |   | ASBESTOS                        | OTHER                           |
| 0007A<br>12x12 white with brown lines floor tile / west stairs, Loc 13 | 2 Phases:<br>a) Homogeneous, beige, consolidated, vinyl floor tile.           | None Detected                   | Non-Fibrous Material > 75%      |
|  | b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Tar and other non-fibrous > 75% |
| 0007B<br>12x12 white with brown lines floor tile / Janitor, Loc 22     | 2 Phases:<br>a) Homogeneous, brown, consolidated, vinyl floor tile.           | None Detected                   | Non-Fibrous Material > 75%      |
|  | b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Tar and other non-fibrous > 75% |
| 0007C<br>12x12 white with brown lines floor tile / washroom, Loc 9     | 2 Phases:<br>a) Homogeneous, beige, consolidated, vinyl floor tile.           | None Detected                   | Non-Fibrous Material > 75%      |
|  | b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Tar and other non-fibrous > 75% |

**Reviewed by:**

**Reporting Analyst:**





Analyzed by: W.M  
 Reviewed by: [Signature]  
 Report Sent by: \_\_\_\_\_



**Special Instructions: analyze only plaster on sample set 0004, analyze on brown mastic on sample set 0005**

**Pinchin Ltd. - Asbestos Laboratory  
 Internal Asbestos Bulk Sample Chain of Custody**

|  |                                 |                  |                                   |
|--|---------------------------------|------------------|-----------------------------------|
| Client Name:                                     | Reginal Municipality of Niagara | Project Address: | 4267 Bridge St, Niagara Falls, On |
| Portfolio/Building No:                           |                                 | Pinchin File:    | 218282.011                        |
| Submitted by:                                    | Matt Gibbs                      | Email:           | mgibbs@pinchin.com                |
| CC Results to:                                   | Chris Mego                      | CC Email:        | cmego@pinchin.com                 |
| Invoice to:                                      | Matt Gibbs                      | Invoice Email:   | mgibbs@pinchin.com                |
| Date Submitted:                                  | December 6 2018                 | Required by:     | December 10 2018                  |
| # of Samples:                                    | <u>21</u>                       | Priority:        | Rush Turnaround                   |
| Year of Building Construction (Mandatory Field): | 1900                            |                  |                                   |
| Do NOT Stop on Positive (Sample Numbers):        |                                 |                  |                                   |
| Pinchin Group Company (Mandatory Field):         | Pinchin                         |                  |                                   |

**To be Completed by Lab Personnel Only:**

|                        |                    |       |                      |     |      |
|------------------------|--------------------|-------|----------------------|-----|------|
| Lab Reference #:       | <u>6201847</u>     | Time: | 24 hour clock        |     |      |
| Received by:           | <u>DEC 10 2018</u> | Date: | Month                | Day | Year |
| Name(s) of Analyst(s): | <u>W.M / T.T</u>   |       |                      |     |      |
|                        |                    |       | <u>Dec. 6 / 2018</u> |     |      |

| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)  |
|---------------|------------|---------------|--|
|               | 0001       | A             | drywall joint compound / baggage room, Loc 4 wall <u>ND</u>                            |
|               | 0001       | B             | drywall joint compound / men's washroom, Loc 8, column <u>ND</u>                       |
|               | 0001       | C             | drywall joint compound / women's washroom, Loc 3 wall <u>a) ND</u><br><u>b) ND</u>     |
|               | 0001       | D             | drywall joint compound / mechanical room, Loc 5 wall <u>ND</u>                         |
|               | 0001       | E             | drywall joint compound / 2nd floor open area, Loc 14 wall <u>a) ND</u><br><u>b) ND</u> |
|               | 0001       | F             | drywall joint compound / VIA train office, Loc 12 column <u>ND</u>                     |

W.M



| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)   |
|---------------|------------|---------------|---|
|               | 0001       | G             | drywall joint compound / 2nd floor open area, Loc 14 ceiling ND                     |
|               | 0002       | A             | smooth plaster / men's washroom, Loc 8 a) ND<br>b) ND                               |
|               | 0002       | B             | smooth plaster / women's washroom, Loc 3 a) ND<br>b) ND                             |
|               | 0002       | C             | smooth plaster / ticket office, Loc 2 a) ND<br>b) ND                                |
|               | 0002       | D             | smooth plaster / 2nd floor open corridor, Loc 16 a) ND<br>b) ND                     |
|               | 0002       | E             | smooth plaster / 2nd floor open corridor, Loc 16 a) ND<br>b) ND                     |
|               | 0003       | A             | grey plaster / attic chimney, Loc 15 ND   |
|               | 0003       | B             | grey plaster / attic chimney, Loc 15 ND   |
|               | 0003       | C             | grey plaster / attic chimney, Loc 15 ND   |
|               | 0004       | A             | grey textured plaster ceiling / VIA OTS, Loc 10 ND                                  |
|               | 0004       | B             | grey textured plaster ceiling / VIA OTS, Loc 10 a) ND<br><del>b) ND</del>           |
|               | 0004       | C             | grey textured plaster ceiling / VIA OTS, Loc 10 ND                                  |
|               | 0005       | A             | brown 12x12 ceiling tile mastic / VIA OTS, Loc 10 ND                                |
|               | 0005       | B             | brown 12x12 ceiling tile mastic / VIA OTS, Loc 10 ND                                |
|               | 0005       | C             | brown 12x12 ceiling tile mastic / VIA OTS, Loc 10 ND                                |
|               | 0006       | A             | 12x12 dark grey flakes floor tile / 2nd floor corridor, Loc 16<br>a) ND b) ND c) ND |

W-M

T-T

| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)                                       |
|---------------|------------|---------------|---|
| T.T.          | 0006       | B             | 12x12 dark grey flakes floor tile / ticket office, Loc 2<br>A) ND B) ND       |
|               | 0006       | C             | 12x12 dark grey flakes floor tile / ticket office, Loc 2<br>A) ND B) ND C) ND |
|               | 0007       | A             | 12x12 white with brown lines floor tile / west stairs, Loc 13<br>A) ND B) ND  |
| 27            | 0007       | B             | 12x12 white with brown lines floor tile / Janitor, Loc 22<br>A) ND B) ND      |
|               | 0007       | C             | 12x12 white with brown lines floor tile / washroom, Loc 9<br>A) ND B) ND      |
|               | 0008       | A             | 12x12 light grey flakes floor tile / VIA train office, Loc 11                 |
|               | 0008       | B             | 12x12 light grey flakes floor tile / VIA train office, Loc 11                 |
|               | 0008       | C             | 12x12 light grey flakes floor tile / VIA train office, Loc 11                 |
|               | 0009       | A             | 12x12 white with beige specks floor tile / lunch room, Loc 19                 |
|               | 0009       | B             | 12x12 white with beige specks floor tile / lunch room, Loc 19                 |
|               | 0009       | C             | 12x12 white with beige specks floor tile / east stairs, Loc 7                 |
|               | 0010       | A             | 24x48 pinhole ceiling tile / ticket office, Loc 2                             |
|               | 0010       | B             | 24x48 pinhole ceiling tile / ticket office, Loc 2                             |
|               | 0010       | C             | 24x48 pinhole ceiling tile / ticket office, Loc 2                             |
|               | 0011       | A             | 24x48 width-wise fissure and pinhole ceiling tile / lunch room, Loc 19        |
|               | 0011       | B             | 24x48 width-wise fissure and pinhole ceiling tile / washroom, Loc 9           |



| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)                                 |
|---------------|------------|---------------|---|
|               | 0011       | C             | 24x48 width-wise fissure and pinhole ceiling tile / baggage room, Loc 4 |
|               | 0012       | A             | butyl tape / east stairs, Loc 7   |
|               | 0012       | B             | butyl tape / east stairs, Loc 7   |
|               | 0012       | C             | butyl tape / east stairs, Loc 7   |
|               | 0013       | A             | wood window caulking (red) / exterior, north window                     |
|               | 0013       | B             | wood window caulking (red) / exterior, north window                     |
|               | 0013       | C             | door window caulking (green) / exterior, south door                     |
|               | 0014       | A             | hard white door caulking / exterior north door                          |
|               | 0014       | B             | hard white door caulking / exterior west door                           |
|               | 0014       | C             | hard white door caulking / exterior south door                          |
|               | 0015       | A             | soft grey caulking / exterior north window                              |
|               | 0015       | B             | soft grey caulking / exterior north window                              |
|               | 0015       | C             | soft grey caulking / exterior south window                              |
|               | 0016       | A             | brown exterior door caulking / exterior, east stairs                    |
|               | 0016       | B             | brown exterior door caulking / exterior, east stairs                    |
|               | 0016       | C             | brown exterior door caulking / exterior, east stairs                    |

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## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

|                           |   |                             |                   |
|---------------------------|---|-----------------------------|-------------------|
| <b>Project Name:</b>      | Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, ON |                             |                   |
| <b>Project No.:</b>       | 0218282.011   |                             |                   |
| <b>Prepared For:</b>      | M. Gibbs / C. Mego  | <b>Date Received:</b>       | December 10, 2018 |
| <b>Lab Reference No.:</b> | b201849   | <b>Date Analyzed:</b>       | December 10, 2018 |
| <b>Analyst(s):</b>        | A. Wells / A. Williams  | <b># Samples submitted:</b> | 27                |
|                           |   | <b># Phases analyzed:</b>   | 36                |

**Method of Analysis:**

**EPA 600/R-93/116 - Method for the Determination of Asbestos in Bulk Building Materials dated July, 1993**

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold (see chart below) indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

| Provincial Jurisdiction  | Regulatory Threshold | Provincial Jurisdiction | Regulatory Threshold        |
|--|----------------------|-------------------------|-----------------------------|
| Ontario, British Columbia,<br>Nova Scotia                                    | 0.5%                 | Alberta                 | Undefined                   |
| Quebec   | 0.1%                 | Saskatchewan            | 0.5% friable 1% non-friable |
| PEI, NWT, Yukon, Nunavut,<br>Newfoundland and Labrador,<br>and New Brunswick | 1%                   | Manitoba                | 0.1% friable 1% non-friable |

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

Pinchin Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2005.

This report relates only to the items tested.

**NOTE:** *This test report may not be reproduced, except in full, without the written approval of the laboratory. The client may not use this report to claim product endorsement by NVLAP or any agency of the U.S. Government. This report is valid only when signed in blue ink by the analyst. Vinyl asbestos floor tiles contain very fine fibres of asbestos and may be missed by some laboratories using the PLM method. Internal verification studies performed by Pinchin indicate that the chance of missing asbestos in floor tiles is no higher than about 2%. The vinyl tile study and laboratory documentation on measurement uncertainty is available upon request. The analysis of dust samples by PLM cannot be used as an indicator of past or present airborne asbestos fibre levels.*



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**BULK SAMPLE ANALYSIS**

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |                            |
|--|--|---------------------------------|----------------------------|
|  |  | ASBESTOS                        | OTHER                      |
| 0008A<br>12x12 light grey flakes floor tile / VIA train office, Loc 11 | 2 Phases:<br>a) Homogeneous, grey, consolidated, vinyl floor tile.             | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |
| 0008B<br>12x12 light grey flakes floor tile / VIA train office, Loc 11 | Homogeneous, grey, consolidated, vinyl floor tile.                             | None Detected                   | Non-Fibrous Material > 75% |
| Comments:  | There was no mastic in this sample to be analyzed.                             |                                 |                            |
| 0008C<br>12x12 light grey flakes floor tile / VIA train office, Loc 11 | 2 Phases:<br>a) Homogeneous, grey, consolidated, vinyl floor tile.             | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |



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### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |                            |
|--|--|---------------------------------|----------------------------|
|  |  | ASBESTOS                        | OTHER                      |
| 0009A<br>12x12 white with beige specks floor tile / lunch room, Loc 19 | 4 Phases:<br>a) Homogeneous, beige, consolidated, vinyl floor tile.            | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |
|  | c) Homogeneous, grey, levelling compound.                                      | None Detected                   | Non-Fibrous Material > 75% |
|  | d) Homogeneous, light grey, hard, cementitious material.                       | None Detected                   | Non-Fibrous Material > 75% |
| 0009B<br>12x12 white with beige specks floor tile / lunch room, Loc 19 | 4 Phases:<br>a) Homogeneous, beige, consolidated, vinyl floor tile.            | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |
|  | c) Homogeneous, grey, levelling compound.                                      | None Detected                   | Non-Fibrous Material > 75% |
|  | d) Homogeneous, light grey, hard, cementitious material.                       | None Detected                   | Non-Fibrous Material > 75% |



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### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION   | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |   |
|---|--|---------------------------------|---|
|   |  | ASBESTOS                        | OTHER   |
| 0009C<br>12x12 white with beige specks floor tile / east stairs, Loc 7          | a) Homogeneous, beige, consolidated, vinyl floor tile.                         | None Detected                   | Non-Fibrous Material > 75%  |
|   | b) Homogeneous, yellow, soft, sticky material on the back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75%  |
|   | c) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.  | None Detected                   | Tar and other non-fibrous > 75%   |
| 0010A<br>24x48 pinhole ceiling tile / ticket office, Loc 2                      | Homogeneous, beige, layered, compressed, acoustic ceiling tile.                | None Detected                   | Cellulose 25-50%<br>Man-made Vitreous Fibres 25-50%<br>Perlite 25-50%<br>Other Non-Fibrous 0.5-5% |
| 0010B<br>24x48 pinhole ceiling tile / ticket office, Loc 2                      | Homogeneous, beige, layered, compressed, acoustic ceiling tile.                | None Detected                   | Cellulose 25-50%<br>Man-made Vitreous Fibres 25-50%<br>Perlite 25-50%<br>Other Non-Fibrous 0.5-5% |
| 0010C<br>24x48 pinhole ceiling tile / ticket office, Loc 2                      | Homogeneous, beige, layered, compressed, acoustic ceiling tile.                | None Detected                   | Cellulose 25-50%<br>Man-made Vitreous Fibres 25-50%<br>Perlite 25-50%<br>Other Non-Fibrous 0.5-5% |
| 0011A<br>24x48 width-wise fissure and pinhole ceiling tile / lunch room, Loc 19 | Homogeneous, beige, layered, compressed, acoustic ceiling tile.                | None Detected                   | Cellulose 25-50%<br>Man-made Vitreous Fibres 25-50%<br>Perlite 25-50%<br>Other Non-Fibrous 0.5-5% |





## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, ON  
**Project No.:** 0218282.011  
**Prepared For:** M. Gibbs / C. Mego

**Lab Reference No.:** b201849  
**Date Analyzed:** December 10, 2018

### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION  | % COMPOSITION (VISUAL ESTIMATE)        |   |
|--|---|--|---|
|  |   | ASBESTOS                               | OTHER   |
| 0011B<br>24x48 width-wise fissure and pinhole ceiling tile / washroom, Loc 9     | Homogeneous, beige, layered, compressed, acoustic ceiling tile.                                       | None Detected                          | Cellulose 25-50%<br>Man-made Vitreous Fibres 25-50%<br>Perlite 25-50%<br>Other Non-Fibrous 0.5-5% |
| 0011C<br>24x48 width-wise fissure and pinhole ceiling tile / baggage room, Loc 4 | Homogeneous, beige, layered, compressed, acoustic ceiling tile.                                       | None Detected                          | Cellulose 25-50%<br>Man-made Vitreous Fibres 25-50%<br>Perlite 25-50%<br>Other Non-Fibrous 0.5-5% |
| 0012A<br>butyl tape / east stairs, Loc 7   | Homogeneous, black, caulking material.  | Chrysotile 0.5-5%                      | Non-Fibrous Material > 75%  |
| 0012B<br>butyl tape / east stairs, Loc 7   |   |  | Not Analyzed  |
| Comments:  | Analysis was stopped due to a previous positive result.   |  |   |
| 0012C<br>butyl tape / east stairs, Loc 7   |   |  | Not Analyzed  |
| Comments:  | Analysis was stopped due to a previous positive result.   |  |   |
| 0013A<br>wood window caulking (red) / exterior, north window                     | 2 Phases:<br>a) Homogeneous, white, caulking material.<br><br>b) Homogeneous, red, caulking material. | None Detected<br><br>Chrysotile 0.5-5% | Non-Fibrous Material > 75%<br><br>Non-Fibrous Material > 75%                                      |
| 0013B<br>wood window caulking (red) / exterior, north window                     |   |  | Not Analyzed  |
| Comments:  | Analysis was stopped due to a previous positive result.   |  |   |



## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, ON  
**Project No.:** 0218282.011  
**Prepared For:** M. Gibbs / C. Mego

**Lab Reference No.:** b201849  
**Date Analyzed:** December 10, 2018

### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION  | % COMPOSITION (VISUAL ESTIMATE) |   |
|--|---|---------------------------------|---|
|  |   | ASBESTOS                        | OTHER   |
| 0013C<br>door window caulking (green) / exterior, south door |   |                                 | Not Analyzed  |
| Comments:  | Analysis was stopped due to a previous positive result.             |                                 |   |
| 0014A<br>hard white door caulking / exterior north door      | 2 Phases:<br>a) Homogeneous, white, caulking material.              | None Detected                   | Non-Fibrous Material > 75%                            |
|  | b) Homogeneous, grey, caulking material.                            | Chrysotile 0.5-5%               | Non-Fibrous Material > 75%                            |
| 0014B<br>hard white door caulking / exterior west door       | Homogeneous, white, caulking material.                              | None Detected                   | Non-Fibrous Material > 75%                            |
| 0014C<br>hard white door caulking / exterior south door      | 2 Phases:<br>a) Homogeneous, white, caulking material.              | None Detected                   | Non-Fibrous Material > 75%                            |
|  | b) Homogeneous, grey, caulking material.                            |                                 | Not Analyzed  |
| Comments:  | Analysis of phase b) was stopped due to a previous positive result. |                                 |   |
| 0015A<br>soft grey caulking / exterior north window          | 2 Phases:<br>a) Homogeneous, grey, caulking material.               | None Detected                   | Synthetic Fibres 0.5-5%<br>Non-Fibrous Material > 75% |
|  | b) Homogeneous, white, caulking material.                           | None Detected                   | Non-Fibrous Material > 75%                            |



**Pinchin Ltd. Asbestos Laboratory  
Certificate of Analysis**

**Project Name:** Regional Municipality of Niagara, 4267 Bridge St, Niagara Falls, ON  
**Project No.:** 0218282.011  
**Prepared For:** M. Gibbs / C. Mego

**Lab Reference No.:** b201849  
**Date Analyzed:** December 10, 2018

**BULK SAMPLE ANALYSIS**

| SAMPLE IDENTIFICATION   | SAMPLE DESCRIPTION                     | % COMPOSITION (VISUAL ESTIMATE) |   |
|---|--|---------------------------------|---|
|   |  | ASBESTOS                        | OTHER   |
| 0015B<br>soft grey caulking / exterior north window           | Homogeneous, grey, caulking material.  | None Detected                   | Synthetic Fibres 0.5-5%<br>Non-Fibrous Material > 75% |
| 0015C<br>soft grey caulking / exterior south window           | Homogeneous, grey, caulking material.  | None Detected                   | Synthetic Fibres 0.5-5%<br>Non-Fibrous Material > 75% |
| 0016A<br>brown exterior door caulking / exterior, east stairs | Homogeneous, brown, caulking material. | None Detected                   | Non-Fibrous Material > 75%                            |
| 0016B<br>brown exterior door caulking / exterior, east stairs | Homogeneous, brown, caulking material. | None Detected                   | Non-Fibrous Material > 75%                            |
| 0016C<br>brown exterior door caulking / exterior, east stairs | Homogeneous, brown, caulking material. | None Detected                   | Non-Fibrous Material > 75%                            |

**Reviewed by:**

**Reporting Analyst:**



Analyzed by: AW  
 Reviewed by: KB  
 Report Sent by: EL

**Special Instructions: analyze only plaster on sample set 0004, analyze on brown mastic on sample set 0005**

**Pinchin Ltd. - Asbestos Laboratory  
 Internal Asbestos Bulk Sample Chain of Custody**

|   |                                 |                         |                                   |
|---|---------------------------------|-------------------------|-----------------------------------|
| <b>Client Name:</b>                                     | Reginal Municipality of Niagara | <b>Project Address:</b> | 4267 Bridge St, Niagara Falls, On |
| <b>Portfolio/Building No:</b>                           |                                 | <b>Pinchin File:</b>    | 218282.011                        |
| <b>Submitted by:</b>                                    | Matt Gibbs                      | <b>Email:</b>           | mgibbs@pinchin.com                |
| <b>CC Results to:</b>                                   | Chris Mego                      | <b>CC Email:</b>        | cmego@pinchin.com                 |
| <b>Invoice to:</b>                                      | Matt Gibbs                      | <b>Invoice Email:</b>   | mgibbs@pinchin.com                |
| <b>Date Submitted:</b>                                  | December 6 2018                 | <b>Required by:</b>     | December 10 2018                  |
| <b># of Samples:</b>                                    | 27                              | <b>Priority:</b>        | Rush Turnaround                   |
| <b>Year of Building Construction (Mandatory Field):</b> | 1900                            |                         |                                   |
| <b>Do NOT Stop on Positive (Sample Numbers):</b>        |                                 |                         |                                   |
| <b>Pinchin Group Company (Mandatory Field):</b>         | Pinchin                         |                         |                                   |

**To be Completed by Lab Personnel Only:**

|                         |                   |              |                    |
|-------------------------|-------------------|--------------|--------------------|
| <b>Lab Reference #:</b> | b201849           | <b>Time:</b> | 24 hour clock      |
| <b>Received by:</b>     | December 10, 2018 | <b>Date:</b> | Month   Day   Year |

**Name(s) of Analyst(s):** AW 18-12-10

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| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)   |
|---------------|------------|---------------|---|
|               | 0008       | A             | 12x12 light grey flakes floor tile / VIA train office, Loc 11<br><u>AW 18-12-10</u> |
|               | 0008       | B             | 12x12 light grey flakes floor tile / VIA train office, Loc 11<br><u>AW 18-12-10</u> |
|               | 0008       | C             | 12x12 light grey flakes floor tile / VIA train office, Loc 11<br><u>AW 18-12-10</u> |
|               | 0009       | A             | 12x12 white with beige specks floor tile / lunch room, Loc 19<br><u>AW 18-12-10</u> |
|               | 0009       | B             | 12x12 white with beige specks floor tile / lunch room, Loc 19<br><u>AW 18-12-10</u> |
|               | 0009       | C             | 12x12 white with beige specks floor tile / east stairs, Loc 7<br><u>AW 18-12-10</u> |

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| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)  |
|---------------|------------|---------------|--|
|               | 0010       | A             | 24x48 pinhole ceiling tile / ticket office, Loc 2 <span style="float: right;">ND</span>                        |
|               | 0010       | B             | 24x48 pinhole ceiling tile / ticket office, Loc 2 <span style="float: right;">ND</span>                        |
|               | 0010       | C             | 24x48 pinhole ceiling tile / ticket office, Loc 2 <span style="float: right;">ND</span>                        |
|               | 0011       | A             | 24x48 width-wise fissure and pinhole ceiling tile / lunch room, Loc 19 <span style="float: right;">ND</span>   |
|               | 0011       | B             | 24x48 width-wise fissure and pinhole ceiling tile / washroom, Loc 9 <span style="float: right;">ND</span>      |
|               | 0011       | C             | 24x48 width-wise fissure and pinhole ceiling tile / baggage room, Loc 4 <span style="float: right;">ND</span>  |
|               | 0012       | A             | butyl tape / east stairs, Loc 7 <span style="float: right;">CMO.5-5g</span>                                    |
|               | 0012       | B             | butyl tape / east stairs, Loc 7 <span style="float: right;">NA</span>  |
|               | 0012       | C             | butyl tape / east stairs, Loc 7 <span style="float: right;">NA</span>  |
|               | 0013       | A             | wood window caulking (red) / exterior, north window <span style="float: right;">a) ND<br/>b) CH 0.5-ST.</span> |
|               | 0013       | B             | wood window caulking (red) / exterior, north window <span style="float: right;">-NA-</span>                    |
|               | 0013       | C             | door window caulking (green) / exterior, south door <span style="float: right;">-NA-</span>                    |
|               | 0014       | A             | hard white door caulking / exterior north door <span style="float: right;">a) ND<br/>b) CH 0.5-ST.</span>      |
|               | 0014       | B             | hard white door caulking / exterior west door <span style="float: right;">ND</span>                            |
|               | 0014       | C             | hard white door caulking / exterior south door <span style="float: right;">a) ND<br/>b) NA-</span>             |
|               | 0015       | A             | soft grey caulking / exterior north window <span style="float: right;">a) ND<br/>b) ND</span>                  |

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| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)                 |
|---------------|------------|---------------|---|
|               | 0015       | B             | soft grey caulking / exterior north window ND           |
|               | 0015       | C             | soft grey caulking / exterior south window ND           |
|               | 0016       | A             | brown exterior door caulking / exterior, east stairs ND |
|               | 0016       | B             | brown exterior door caulking / exterior, east stairs ND |
|               | 0016       | C             | brown exterior door caulking / exterior, east stairs ND |

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## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

|                           |  |                             |                   |
|---------------------------|--|-----------------------------|-------------------|
| <b>Project Name:</b>      | Reginal Municipality of Niagara, 4267 Bridge St, Niagara Falls, On |                             |                   |
| <b>Project No.:</b>       | 0218282.011  |                             |                   |
| <b>Prepared For:</b>      | K. Douglas / C. Mego   | <b>Date Received:</b>       | December 19, 2018 |
| <b>Lab Reference No.:</b> | b202380  | <b>Date Analyzed:</b>       | December 19, 2018 |
| <b>Analyst(s):</b>        | M. Tiggos  | <b># Samples submitted:</b> | 9                 |
|                           |  | <b># Phases analyzed:</b>   | 15                |

**Method of Analysis:**

**EPA 600/R-93/116 - Method for the Determination of Asbestos in Bulk Building Materials dated July, 1993**

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold (see chart below) indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

| Provincial Jurisdiction  | Regulatory Threshold | Provincial Jurisdiction | Regulatory Threshold        |
|--|----------------------|-------------------------|-----------------------------|
| Ontario, British Columbia,<br>Nova Scotia                                    | 0.5%                 | Alberta                 | Undefined                   |
| Quebec   | 0.1%                 | Saskatchewan            | 0.5% friable 1% non-friable |
| PEI, NWT, Yukon, Nunavut,<br>Newfoundland and Labrador,<br>and New Brunswick | 1%                   | Manitoba                | 0.1% friable 1% non-friable |

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

Pinchin Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2005.

This report relates only to the items tested.

**NOTE:** *This test report may not be reproduced, except in full, without the written approval of the laboratory. The client may not use this report to claim product endorsement by NVLAP or any agency of the U.S. Government. This report is valid only when signed in blue ink by the analyst. Vinyl asbestos floor tiles contain very fine fibres of asbestos and may be missed by some laboratories using the PLM method. Internal verification studies performed by Pinchin indicate that the chance of missing asbestos in floor tiles is no higher than about 2%. The vinyl tile study and laboratory documentation on measurement uncertainty is available upon request. The analysis of dust samples by PLM cannot be used as an indicator of past or present airborne asbestos fibre levels.*





## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Reginal Municipality of Niagara, 4267 Bridge St, Niagara Falls, On  
**Project No.:** 0218282.011  
**Prepared For:** K. Douglas / C. Mego

**Lab Reference No.:** b202380  
**Date Analyzed:** December 19, 2018

### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION  | % COMPOSITION (VISUAL ESTIMATE) |                                     |
|--|---|---------------------------------|-------------------------------------|
|  |   | ASBESTOS                        | OTHER                               |
| 0017A<br>drywall joint compound /<br>customs area, wall                          | Homogeneous, white,<br>drywall joint compound.                                      | None Detected                   | Non-Fibrous Material > 75%          |
| 0017B<br>drywall joint compound /<br>customs area, wall                          | Homogeneous, white,<br>drywall joint compound.                                      | None Detected                   | Non-Fibrous Material > 75%          |
| 0017C<br>drywall joint compound /<br>customs area, wall                          | Homogeneous, white,<br>drywall joint compound.                                      | None Detected                   | Non-Fibrous Material > 75%          |
| 0018A<br>vinyl floor tile 12"x12"<br>cream with brown streak,<br>mechanical room | 2 Phases:<br>a) Homogeneous, beige,<br>consolidated, vinyl floor tile.              | None Detected                   | Non-Fibrous Material > 75%          |
|  | b) Homogeneous, black,<br>soft, sticky material on the<br>back of vinyl floor tile. | None Detected                   | Tar and other non-<br>fibrous > 75% |
| Comments:  | Phase b) is small in size. For more reliable results, a larger sample is required.  |                                 |                                     |
| 0018B<br>vinyl floor tile 12"x12"<br>cream with brown streak,<br>mechanical room | 2 Phases:<br>a) Homogeneous, beige,<br>consolidated, vinyl floor tile.              | None Detected                   | Non-Fibrous Material > 75%          |
|  | b) Homogeneous, black,<br>soft, sticky material on the<br>back of vinyl floor tile. | None Detected                   | Tar and other non-<br>fibrous > 75% |



## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Reginal Municipality of Niagara, 4267 Bridge St, Niagara Falls, On  
**Project No.:** 0218282.011  
**Prepared For:** K. Douglas / C. Mego

**Lab Reference No.:** b202380  
**Date Analyzed:** December 19, 2018

### BULK SAMPLE ANALYSIS

| SAMPLE IDENTIFICATION  | SAMPLE DESCRIPTION   | % COMPOSITION (VISUAL ESTIMATE) |                            |
|--|--|---------------------------------|----------------------------|
|  |  | ASBESTOS                        | OTHER                      |
| 0018C<br>vinyl floor tile 12"x12"<br>cream with brown streak,<br>mechanical room   | 2 Phases:<br>a) Homogeneous, beige,<br>consolidated, vinyl floor tile.               | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, black,<br>soft, sticky material on the<br>back of vinyl floor tile.  | None Detected                   | Non-Fibrous Material > 75% |
| 0019A<br>vinyl floor tile 12"x12" grey<br>with light grey fleck,<br>telephone room | 2 Phases:<br>a) Homogeneous, grey,<br>consolidated, vinyl floor tile.                | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow,<br>soft, sticky material on the<br>back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |
| Comments:  | Phase b) is small in size. For more reliable results, a larger sample is required.   |                                 |                            |
| 0019B<br>vinyl floor tile 12"x12" grey<br>with light grey fleck,<br>telephone room | 2 Phases:<br>a) Homogeneous, grey,<br>consolidated, vinyl floor tile.                | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow,<br>soft, sticky material on the<br>back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |
| 0019C<br>vinyl floor tile 12"x12" grey<br>with light grey fleck,<br>telephone room | 2 Phases:<br>a) Homogeneous, grey,<br>consolidated, vinyl floor tile.                | None Detected                   | Non-Fibrous Material > 75% |
|  | b) Homogeneous, yellow,<br>soft, sticky material on the<br>back of vinyl floor tile. | None Detected                   | Non-Fibrous Material > 75% |
| Comments:  | Phase b) is small in size. For more reliable results, a larger sample is required.   |                                 |                            |

**Reviewed by:**

**Reporting Analyst:**



Analyzed by: MS 2018/12/19  
 Reviewed by: [Signature]

Report Sent by: \_\_\_\_\_

**Special Instructions:**

**Pinchin Ltd. - Asbestos Laboratory  
 Internal Asbestos Bulk Sample Chain of Custody**

|   |                                 |                         |                                   |
|---|---------------------------------|-------------------------|-----------------------------------|
| <b>Client Name:</b>                                     | Reginal Municipality of Niagara | <b>Project Address:</b> | 4267 Bridge St, Niagara Falls, On |
| <b>Portfolio/Building No:</b>                           |                                 | <b>Pinchin File:</b>    | 218282.011                        |
| <b>Submitted by:</b>                                    | Kris Douglas                    | <b>Email:</b>           | kdouglas@pinchin.com              |
| <b>CC Results to:</b>                                   | Chris Mego                      | <b>CC Email:</b>        | cmego@pinchin.com                 |
| <b>Invoice to:</b>                                      | Kris Douglas                    | <b>Invoice Email:</b>   | kdouglas@pinchin.com              |
| <b>Date Submitted:</b>                                  | December 18 2018                | <b>Required by:</b>     | December 19 2018                  |
| <b># of Samples:</b>                                    | 9                               | <b>Priority:</b>        | Rush Turnaround                   |
| <b>Year of Building Construction (Mandatory Field):</b> | 1900                            |                         |                                   |
| <b>Do NOT Stop on Positive (Sample Numbers):</b>        |                                 |                         |                                   |
| <b>Pinchin Group Company (Mandatory Field):</b>         | Pinchin                         |                         |                                   |

**To be Completed by Lab Personnel Only:**

|                               |                    |              |               |     |      |
|-------------------------------|--------------------|--------------|---------------|-----|------|
| <b>Lab Reference #:</b>       | <u>6202380 JR</u>  | <b>Time:</b> | 24 hour clock |     |      |
| <b>Received by:</b>           | <u>DEC 19 2018</u> | <b>Date:</b> | Month         | Day | Year |
| <b>Name(s) of Analyst(s):</b> | <u>Plates - 15</u> |              |               |     |      |

| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)                                      |
|---------------|------------|---------------|--|
|               | 0017       | A             | drywall joint compound / customs area, wall <u>dry</u>                       |
|               | 0017       | B             | drywall joint compound / customs area, wall <u>dry</u>                       |
|               | 0017       | C             | drywall joint compound / customs area, wall <u>dry</u>                       |
|               | 0018       | A             | vinyl floor tile 12"x12" cream with brown streak, mechanical room <u>dry</u> |
|               | 0018       | B             | vinyl floor tile 12"x12" cream with brown streak, mechanical room <u>dry</u> |

| Sample Prefix | Sample No. | Sample Suffix | Sample Description/Location (Mandatory)   |
|---------------|------------|---------------|---|
|               | 0018       | C             | vinyl floor tile 12"x12" cream with brown streak, mechanical room<br><i>a/NO b/NO</i>   |
|               | 0019       | A             | vinyl floor tile 12"x12" grey with light grey fleck, telephone room<br><i>a/NO b/NO</i> |
|               | 0019       | B             | vinyl floor tile 12"x12" grey with light grey fleck, telephone room<br><i>a/NO b/NO</i> |
|               | 0019       | C             | vinyl floor tile 12"x12" grey with light grey fleck, telephone room<br><i>a/NO b/NO</i> |

**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.  
6-875 Main St West  
Suite 200  
Hamilton, Ontario L8S 4P9

**Attn:** Matthew Gibbs  
Chris Mego

**Lab Order ID:** 51832537  
**Analysis ID:** 51832537\_PBP  
**Date Received:** 12/11/2018  
**Date Reported:** 12/12/2018

**Project:** 218282.011, 4267 Bridge St Niagara Falls On, RMON

| Sample ID     | Description  | Mass   | Concentration | Concentration |
|---------------|--|--------|---------------|---------------|
| Lab Sample ID | Lab Notes  | (g)    | (ppm)         | (% by weight) |
| L-001         | Red paint on door frame/women's washroom, loc 3              | 0.0704 | 130           | 0.013%        |
| 51832537PBP_1 |  |        |               |               |
| L-002         | White paint on plaster wall/men's washroom, loc 8            | 0.1001 | 1200          | 0.12%         |
| 51832537PBP_2 |  |        |               |               |
| L-003         | Grey paint on drywall wall/women's washroom, loc 3           | 0.0754 | < 53          | < 0.0053%     |
| 51832537PBP_3 |  |        |               |               |
| L-004         | White paint on drywall wall/baggage room, loc 4              | 0.0805 | < 50.         | < 0.0050%     |
| 51832537PBP_4 |  |        |               |               |
| L-005         | Dark beige paint on plaster ceiling/ticket office, loc 2     | 0.0667 | 4500          | 0.45%         |
| 51832537PBP_5 |  |        |               |               |
| L-006         | Red paint on structural steel/baggage room, loc 4            | 0.0519 | 200           | 0.020%        |
| 51832537PBP_6 |  |        |               |               |
| L-007         | Beige paint on wood window frame/2nd floor open area, loc 14 | 0.0879 | 4300          | 0.43%         |
| 51832537PBP_7 |  |        |               |               |

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).

Melissa Ferrell (7)


Analyst

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

Laboratory Director

51832537

Version 1-15-2012

|                        |  |  |   |
|------------------------|--|--|---|
| <b>Client:</b>         | Pinchin Ltd.   | <p><b>*Instructions:</b><br/>Use Column "B" for your contact info</p> <p>To See an Example Click the bottom Example Tab.</p> <p>Enter samples between "&lt;&lt;" and "&gt;&gt;"</p> <p>Begin Samples with a "&lt;&lt;" above the first sample and end with a "&gt;&gt;" below the last sample. Only Enter your data on the first sheet "Sheet1"</p> <p>Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.</p> | <b>Invoice to:</b>  |
| <b>Contact:</b>        | M. Gibbs, C. Mego                                    |  | mqibbs@pinchin.com  |
| <b>Address:</b>        | 6-875 Main St W, Hamilton, ON                        |  |   |
| <b>Phone:</b>          | 2899256907   |  |   |
| <b>Fax:</b>            |  |  |   |
| <b>Email:</b>          | mgibbs@pinchin.com,<br>cmego@pinchin.com             |  |   |
| <b>Project:</b>        | 218282.011, 4267 Bridge St<br>Niagara Falls On, RMON |  | <b>Scientific Analytical Institute</b>  |
| <b>Client Notes:</b>   | % lead by weight                                     |  |                                        |
| <b>P.O. #:</b>         | 218282.011   |  | <b>4604 Dundas Drive<br/>Greensboro, NC 27407<br/>Phone: 336.292.3888<br/>Fax: 336.292.3313<br/>Email: lab@sailab.com</b> |
| <b>Date Submitted:</b> | Dec 5 2018   |  |   |
| <b>Analysis:</b>       | % lead by weight                                     |  |   |
| <b>TurnAroundTime:</b> | rush   |  |   |

| Sample Number | Data 1 (Lab use only) | Sample Description   | Data 2 (Lab use only) |
|---------------|-----------------------|--|-----------------------|
| <<            |                       |  |                       |
| L-001         |                       | red paint on door frame / women's washroom, Loc 3              |                       |
| L-002         |                       | white paint on plaster wall / men's washroom, Loc 8            |                       |
| L-003         |                       | grey paint on drywall wall / women's washroom, Loc 3           |                       |
| L-004         |                       | white paint on drywall wall / baggage room, Loc 4              |                       |
| L-005         |                       | dark beige paint on plaster ceiling / ticket office, Loc 2     |                       |
| L-006         |                       | red paint on structural steel / baggage room, Loc 4            |                       |
| L-007         |                       | beige paint on wood window frame / 2nd floor open area, Loc 14 |                       |
| >>            |                       |  |                       |

*Ballou*  
12/14 1pm

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



## Certificate of Analysis

Matt Gibbs, Chris Mego

Pinchin Ltd. (Hamilton)  
11-875 Main Street West, Unit 11, Hamilton, ON L8S 4R9

Printed: Dec 10, 2018

**Report Description:** 3 solid sample were submitted for the following chemical analysis

|  |                                   |
|--|-----------------------------------|
| <b>Project Name:</b> VIA Rail Train Station            | <b>Date Sampled:</b> Dec 05, 2018 |
| <b>Project No.:</b> 218282.011                         | <b>Date Tested:</b> Dec 10, 2018  |
| <b>Site Location:</b> 4267 Bridge St Niagara Falls, On | <b>Sampled by:</b> Matt Gibbs     |

### Report Number: 18-2258

| No.      | Analyte   | Result | Units | MDL | Comments | Technique / Test Method            |
|----------|---|--------|-------|-----|----------|------------------------------------|
| <u>1</u> | <u>Sample ID.: PCB-01 - Brown Caulking, Exxterior</u><br>PCBs in Solid    | <0.5   | mg/kg | 0.5 |          | LAB-M06 (EPA 3550C/8082A modified) |
| <u>2</u> | <u>Sample ID.: PCB-02 - Soft Grey Caulking, Exterior</u><br>PCBs in Solid | <0.5   | mg/kg | 0.5 |          | LAB-M06 (EPA 3550C/8082A modified) |
| <u>3</u> | <u>Sample ID.: PCB-03 - Green/Red Caulking, Exterior</u><br>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 is 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.

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).

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.

| Jurisdiction | Friable | Non-Friable |
|--------------|---------|-------------|
| 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.

Master Template: Methodology Document for Hazardous Building Materials Management, HAZ, December 1, 2017