



Hazardous Building Materials Assessment

Pool House
1 James Street, Walkerton,
Ontario

Prepared for:

Corporation for the Municipality of Brockton

Box 68, 100 Scott Street
Walkerton, Ontario

Attention: Michael Murphy
Acting Director of Parks and Recreation

June 25, 2019

Pinchin File: 238554



Issued to:	Corporation for the Municipality of Brockton
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	Acting Director of Parks and Recreation
Issued on:	June 25, 2019
Pinchin File:	238554
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EXECUTIVE SUMMARY

Corporation for the Municipality of Brockton (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment at 1 James Street, Walkerton, Ontario. Pinchin performed the assessment on May 21, 2019.

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

The assessed area consisted of the pool building only. The proposal included the assessment of the pool area; however, this area was not assessed as requested by the client on site.

SUMMARY OF FINDINGS

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

- Presumed textured plaster ceiling in the janitor's closet, location 6 in good condition;
- Vinyl floor tiles in the janitor's closet, location 6, in good condition; and
- Grey/black butyl tape present on the window pane in the boiler room, location 1, in good condition.

Lead: Lead is present as follows:

- Light green paint on the concrete block walls in the women's change room, location 7, in good condition.
- Batteries of emergency lights.
- Presumed present in electrical components, including wiring connectors, grounding conductors, solder on pipe connections and glazing on ceramic tiles

Silica: Crystalline silica is present in poured and pre-cast concrete, masonry, mortar, ceramic tiles and grout.

Mercury: Mercury vapour is present in light tubes.

Polychlorinated Biphenyls (PCBs): Based on the date of construction, PCBs may be present in light ballasts. Paints, oil impregnated cables, voltage regulators and capacitors, and lubricants are presumed to contain PCBs.

Mould: Visible mould was observed on the boiler and pipe canvas in the boiler room, location 1.



SUMMARY OF RECOMMENDATIONS

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

1. Prepare an Asbestos Management Program (AMP).
2. Perform a re-assessment of asbestos materials on an annual basis.
3. Perform a pre-construction assessment and remove all ACM prior to alteration or maintenance work if ACM may be disturbed by the work.
4. Investigate the following items prior to building renovation or demolition: Presumed plaster ceiling and associated texture finish in the janitor's closet, location 6, presumed asbestos-containing materials and intrusive investigations.
5. Remove and properly dispose of PCB ballasts when fixtures are decommissioned.
6. Recycle mercury-containing light tubes when removed from service.
7. Follow appropriate safe work procedures when handling or disturbing asbestos, silica, lead and mould.
8. Remediate the materials as described in Section 4.2.

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



TABLE OF CONTENTS

1.0	INTRODUCTION AND SCOPE	1
1.1	Scope of Assessment.....	1
2.0	BACKGROUND INFORMATION	2
2.1	Building Description	2
2.2	Existing Reports.....	2
3.0	FINDINGS	2
3.1	Asbestos	2
3.2	Lead	8
3.3	Silica	9
3.4	Mercury	9
3.5	Polychlorinated Biphenyls	9
3.6	Mould	10
4.0	RECOMMENDATIONS.....	10
4.1	General	10
4.2	Remedial Work	11
4.3	On-going Management and Maintenance	11
5.0	TERMS AND LIMITATIONS	12
6.0	REFERENCES.....	13

APPENDICES

APPENDIX I	Drawings
APPENDIX II-A	Asbestos Analytical Certificates
APPENDIX II-B	Lead Analytical Certificates
APPENDIX II-C	PCB Analytical Certificates
APPENDIX III	Methodology



1.0 INTRODUCTION AND SCOPE

Corporation for the Municipality of Brockton (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment at 1 James Street, Walkerton, Ontario.

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

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

1.1 Scope of Assessment

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

The pool area was not assessed as requested by the client on site. The planned work for the pool had already been completed and no further renovations for the pool are planned at this time.

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

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

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

- Arsenic
- Acrylonitrile
- Benzene
- Coke oven emissions
- Ethylene oxide
- Isocyanates
- Vinyl chloride monomer



2.0 BACKGROUND INFORMATION

2.1 Building Description

Description Item	Details
Use	Pool house.
Number of Floors	The building is one storey.
Total Area	The total area of the building is approximately 3,200 square feet.
Year of Construction	The building was constructed between the 1970's and 1980's.
Structure	Structural steel and concrete.
Exterior Cladding	Masonry.
HVAC	Fresh air intakes at roof.
Roof	Not assessed.
Flooring	Ceramic tile, vinyl tile and concrete.
Interior Walls	Concrete block, drywall and ceramic.
Ceilings	Texture finish on concrete.

2.2 Existing Reports

No existing reports were provided for reference.

3.0 FINDINGS

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

3.1 Asbestos

3.1.1 Suspect Building Materials Not Found

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

- Spray-applied insulations (fireproofing, thermal or acoustic)
- Acoustic ceiling tiles
- Asbestos cement products (e.g. Transite)
- Vinyl sheet flooring

3.1.2 Texture Finishes (Decorative)

Stippled texture finish present on the ceiling in the men's washroom shower, location 3 does not contain asbestos (samples 0004A-C).

Swirling texture finish present on the ceiling in the women's washroom shower, location 7 does not contain asbestos (samples 0007A-C).



Non-asbestos stippled texture finish present on the ceiling in the men's washroom shower, location 3.



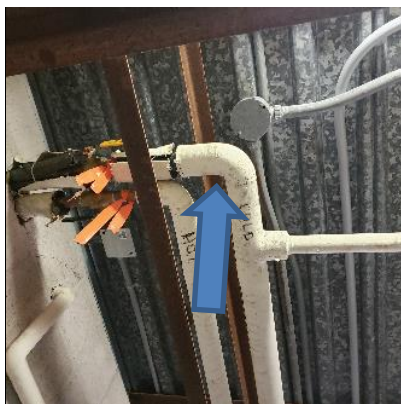
Non-asbestos swirling texture finish present on the ceiling in the women's washroom shower, location 7.

3.1.3 Pipe Insulation

Black insulation present on pipe straights and pipe fittings in the boiler room, location 1 does not contain asbestos (samples 0002A-C).

Remaining pipes are insulated with fiberglass, or other non-asbestos insulation such as mineral fibre or elastomeric foam insulation.

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



Non-asbestos pipe insulation present in the boiler room, location 1.

3.1.4 Duct Insulation and Mastic

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

3.1.5 Mechanical Equipment Insulation

Black insulation present on the underside of the boiler in the boiler room, location 1, does not contain asbestos (samples 0002A-C). The boiler is also insulated with non-asbestos fibreglass insulation covered in canvas.

The remaining mechanical equipment (fan units and hot water tanks) is either uninsulated or insulated with non-asbestos fibreglass.



Non-asbestos black insulation present on underside of the boiler, location 1.



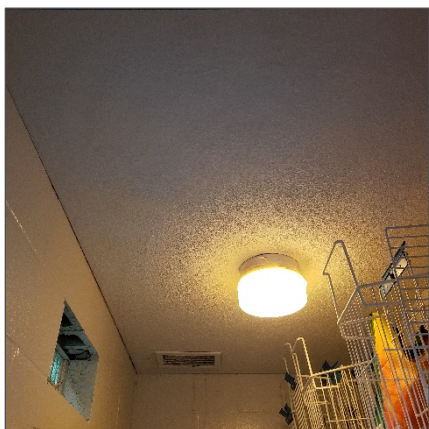
Non-asbestos fibreglass insulation present on face of boiler, location 1.

3.1.6 Vermiculite

Destructive testing was conducted of masonry block walls. The masonry block walls were penetrated in the women's washroom, location 7, loose fill vermiculite was not observed within the cavities. The locations of destructive testing have been indicated on the drawings in Appendix I.

3.1.7 Plaster and Stucco

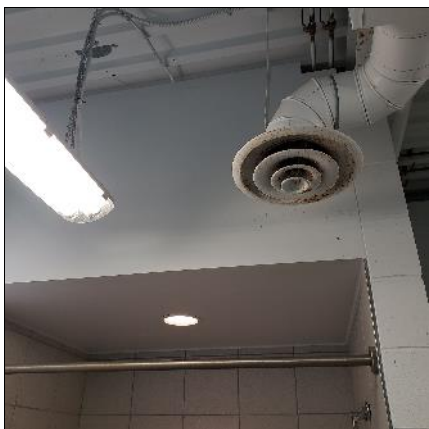
Textured plaster, presumed to contain asbestos, is present as a ceiling finish in the janitor's closet, location 6. Plaster is a non-friable material which may become friable upon removal and is in good condition. There is approximately 25 square feet of plaster ceiling.



Presumed asbestos-containing plaster ceiling present in the janitor's closet, location 6.

3.1.8 Drywall Joint Compound

Drywall joint compound present on the walls and bulkhead in the family change room, location 4 does not contain asbestos (samples 0005A-C).



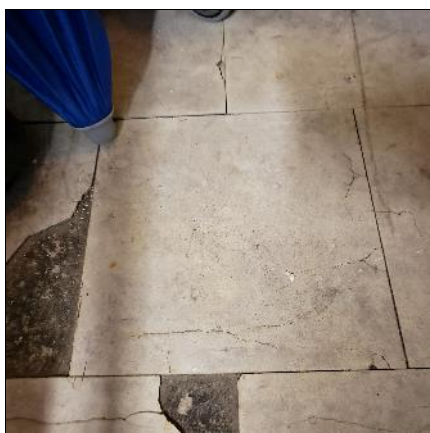
Non-asbestos drywall wall/bulkhead in the family change room, location 4.

3.1.9 Vinyl Floor Tiles

Vinyl floor tiles are present as follows:

Size, Pattern, Colour	Locations, Location # (Quantity)	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12"x12 off-white	Janitor's closet, location 6 (25 square feet).	0006A-C	Chrysotile	None detected

The vinyl floor tiles are non-friable and are in fair condition.



Asbestos-containing 12"x12" off-white vinyl floor tiles present in the janitor's closet, location 6.

3.1.10 Sealants, Caulking, and Putty

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

Material and Colour	Location, Location #	Quantity	Sample Number	Asbestos Type
Butyl tape, grey/black	Boiler room window pane, location 1	16 LF	0003A-C	Chrysotile
Caulking, black	Around exterior window frames of the guard house, location 10	N/A.	0008A-C	None detected

Butyl tape is a non-friable material and is in good condition.



Asbestos-containing grey/black butyl tape present around the boiler room window frame, location 1.



Non-asbestos black caulking present around the exterior window frames of the guard house, location 10.

3.1.11 Other Building Materials

Mortar present in the concrete block masonry throughout the building does not contain asbestos (samples 0001A-C).



Non-asbestos concrete block mortar present in the boiler room, location 1.

3.1.12 Presumed Asbestos Materials

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

- Roofing felts and tar, mastics
- Floor levelling compound
- Ceramic tile setting compound
- Electrical components
- Mechanical packing, ropes and gaskets
- Fire resistant doors
- Metal clad finishes
- Soffit and fascia boards
- Materials concealed

3.2 Lead

3.2.1 Paints and Surface Coatings

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

Sample Number	Colour, Substrate Description	Location (Location #)	Lead (%)
L01	Teal paint on metal doors	Men's change room, location 3	<0.0068
L02	White paint on concrete block walls	Men's change room, location 3	<0.0051
L03	Blue paint on concrete block walls	Family change room, location 4	<0.0068
L04	Light green paint on concrete block walls	Women's change room, location 7	1.4

Results above 0.1% are considered elevated (i.e., greater than the EACO guideline of 0.1% for lead-containing paints). All paints determined to be elevated were found to be in good condition and not flaking, peeling or delaminating.

3.2.2 Lead Products and Applications

Lead-containing batteries are presumed present in emergency lighting.



Lead-containing batteries are presumed present in the emergency lighting in the family change room, location 4.

3.2.3 Presumed Lead Materials

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

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

3.3 Silica

Crystalline silica is a presumed component of the following materials:

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

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps.

3.4.2 Mercury-Containing Devices

Thermostats inspected did not contain liquid mercury ampules.

3.5 Polychlorinated Biphenyls

3.5.1 Caulking

The following table presents a summary of caulking present:

Material and Colour	Location	Sample Number	PCB concentration (ppm)
Caulking, black	Around the exterior window frames of the guard house, location 10	P01	<0.5

Caulking in the table above is considered 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.

3.5.4 Presumed PCB Materials

- Paints
- Oil impregnated cables
- Voltage regulators and capacitors

3.6 Mould

Visible mould growth is present on the boiler canvas and pipe canvas in the boiler room, location 1. There is approximately 30 square feet of visible mould growth.



Visible mould growth present on the boiler canvas in the boiler room, location 1.



Visible mould growth present on the pipe canvas in the boiler room, location 1.

4.0 RECOMMENDATIONS

4.1 General

1. Perform a detailed intrusive assessment prior to building renovation or demolition operations. The assessment should include; destructive testing (i.e. coring and/or removal of building finishes and components), and sampling of materials not previously tested (i.e. roofing materials, caulking, mastics). This report does not provide sufficient detail for most renovation or demolition.
2. Investigate any items excluded from the scope of work of this report. Ideally this investigation will be performed as part of the development of the specifications, or at a minimum immediately prior to commencing renovations. Specifically the following materials/areas need to be investigated:
 - Presumed plaster ceiling and associated texture finish in the janitor's closet, location 6.
 - Presumed asbestos-containing materials.
 - Intrusive investigations prior to demolition.



4.2 Remedial Work

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

Material, Quantity	Location, Location #	Recommended Procedure
Visible mould growth on boiler and pipe canvas, 30 square feet	Boiler room, location 1	Remove in accordance with Level 2 EACO 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.

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

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

4.3.2 Lead

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.

Lead-containing items should be recycled when taken out of service.



4.3.3 Silica

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

4.3.4 Mercury

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

4.3.5 PCBs

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

4.3.6 Mould

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

5.0 TERMS AND LIMITATIONS

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

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



6.0 REFERENCES

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

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

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

APPENDIX I
Drawings



LEGEND:

- (X) PINCHIN LOCATION NUMBER
- ◎ ASBESTOS BULK SAMPLE
- ▲ LEAD BULK SAMPLE
- ◻ PCB BULK SAMPLE
- ⊠ INTRUSIVE INSPECTION

ASBESTOS-CONTAINING MATERIALS:

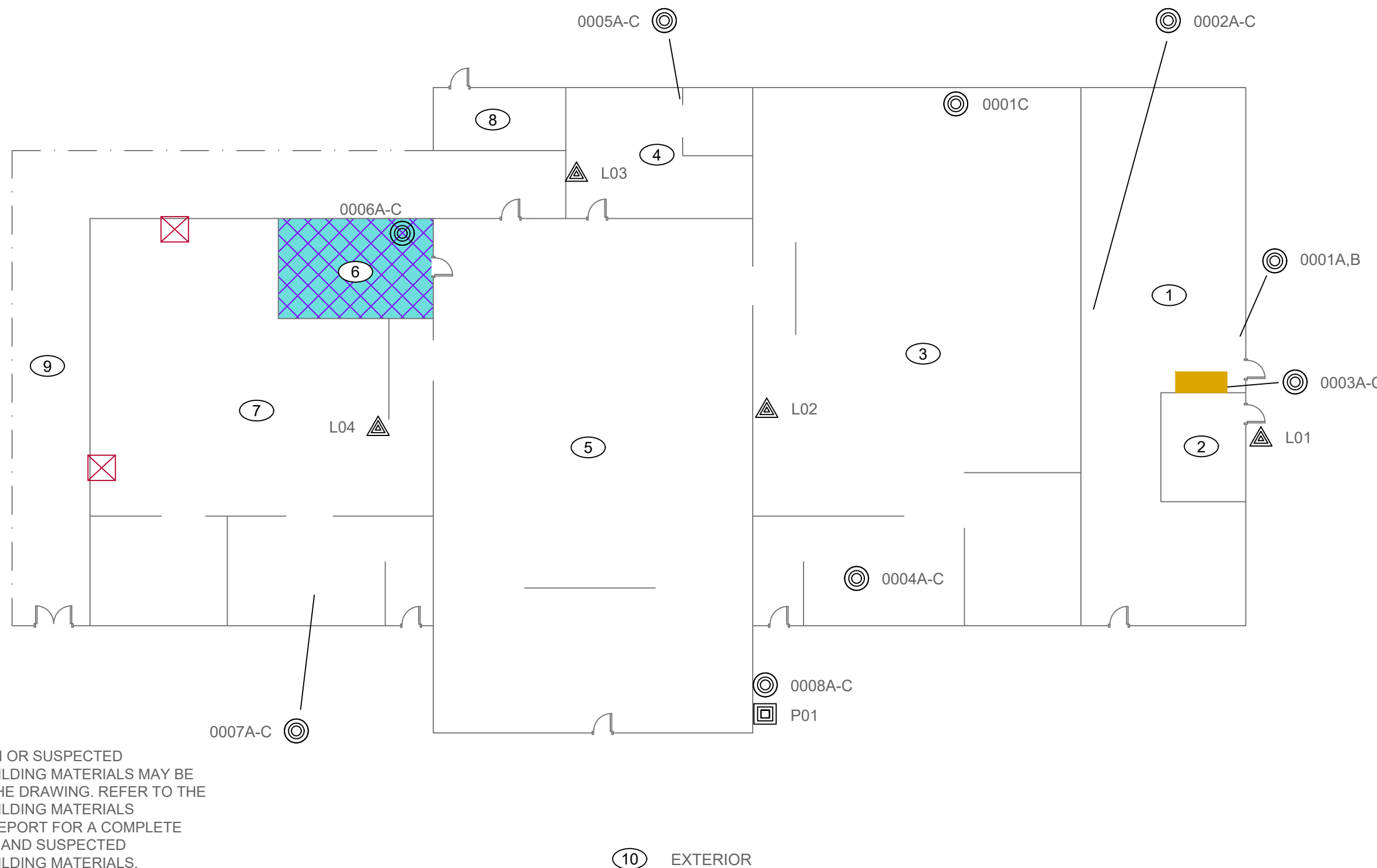
- Presumed Textured Plaster Ceiling
- Vinyl Floor Tiles
- Butyl Tape

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

LOCATION:
CENTENNIAL POOL FACILITY
1 JAMES STREET
WALKERTON, ONTARIO

TITLE:
HAZARDOUS BUILDING
MATERIALS ASSESSMENT
GROUND FLOOR

DATE: JUNE 2019	PROJECT # : 238554
DRAWN BY: GBL	DRAWING: 1 OF 1
CHECKED BY: DMP	
SCALE: NTS	



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

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

BASE PLAN PROVIDED BY CLIENT.

APPENDIX II-A
Asbestos Analytical Certificates



Bulk Asbestos Analysis

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



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

Attn: Greg Livingston
Ryan Farnsworth

Lab Order ID: 71913987
Analysis ID: 71913987_PLM
Date Received: 5/24/2019
Date Reported: 5/30/2019

Project: 238554,1 James St Walkerton ON, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0001A	Concrete block mortar, Loc 1	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71913987PLM_1					Crushed
0001B	Concrete block mortar, Loc 1	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71913987PLM_2					Crushed
0001C	Concrete block mortar, Loc 3	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71913987PLM_3					Crushed
0002A	Black insulation on pipe straights and fittings and boiler, Loc 1	None Detected		100% Other	White, Black Non Fibrous Heterogeneous
71913987PLM_4					Dissolved
0002B	Black insulation on pipe straights and fittings and boiler, Loc 1	None Detected		100% Other	White, Black Non Fibrous Heterogeneous
71913987PLM_5					Dissolved
0002C	Black insulation on pipe straights and fittings and boiler, Loc 1	None Detected		100% Other	White, Black Non Fibrous Heterogeneous
71913987PLM_6					Dissolved
0003A	Butyl tape, grey/black on window panes Loc 1	5% Chrysotile		95% Other	Gray Non Fibrous Heterogeneous
71913987PLM_7					Dissolved
0003B	Butyl tape, grey/black on window panes Loc 1	Not Analyzed			
71913987PLM_8					

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

Bart Huber (27)

Analyst

Approved Signatory



Bulk Asbestos Analysis

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



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Analysis ID: 71913987_PLM
Date Received: 5/24/2019
Date Reported: 5/30/2019

Project: 238554,1 James St Walkerton ON, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0003C	Butyl tape, grey/black on window panes Loc 1	Not Analyzed			
71913987PLM_9					
0004A	Stippled texture coat on concrete ceiling, Loc 3	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_10					Crushed
0004B	Stippled texture coat on concrete ceiling, Loc 3	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_11					Crushed
0004C	Stippled texture coat on concrete ceiling, Loc 3	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_12					Crushed
0005A	Drywall joint compound, wall/bulkhead, Loc 4	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_13					Crushed
0005B	Drywall joint compound, wall/bulkhead, Loc 4	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_14					Crushed
0005C	Drywall joint compound, wall/bulkhead, Loc 4	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_15					Crushed
0006A - A	Vinyl floor tile, 12x12 off-white, Loc 6	2% Chrysotile		98% Other	Cream Non Fibrous Homogeneous
71913987PLM_16	tile				Dissolved

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

Bart Huber (27)

Analyst

Approved Signatory



Bulk Asbestos Analysis

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



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Date Reported: 5/30/2019

Project: 238554,1 James St Walkerton ON, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0006A - B	Vinyl floor tile, 12x12 off-white, Loc 6	None Detected		100% Other	Black Non Fibrous Homogeneous
71913987PLM_25	mastic				Dissolved
0006B - A	Vinyl floor tile, 12x12 off-white, Loc 6	Not Analyzed			
71913987PLM_17	tile				
0006B - B	Vinyl floor tile, 12x12 off-white, Loc 6	None Detected		100% Other	Black Non Fibrous Homogeneous
71913987PLM_26	mastic				Dissolved
0006C - A	Vinyl floor tile, 12x12 off-white, Loc 6	Not Analyzed			
71913987PLM_18	tile				
0006C - B	Vinyl floor tile, 12x12 off-white, Loc 6	None Detected		100% Other	Black Non Fibrous Homogeneous
71913987PLM_27	mastic				Dissolved
0007A	Swirling texture finish on concrete ceiling, Loc 7	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_19					Crushed
0007B	Swirling texture finish on concrete ceiling, Loc 7	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_20					Crushed
0007C	Swirling texture finish on concrete ceiling, Loc 7	None Detected		100% Other	White Non Fibrous Homogeneous
71913987PLM_21					Crushed

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

Bart Huber (27)

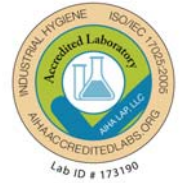
Analyst

Approved Signatory



Bulk Asbestos Analysis

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



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

Attn: Greg Livingston
Ryan Farnsworth

Lab Order ID: 71913987
Analysis ID: 71913987_PLM
Date Received: 5/24/2019
Date Reported: 5/30/2019

Project: 238554, 1 James St Walkerton ON, City of Brockton

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0008A	Black caulking around guard house window frames, Loc 10	None Detected	3% Fiber Glass	97% Other	Black Non Fibrous Heterogeneous
71913987PLM_22					Dissolved
0008B	Black caulking around guard house window frames, Loc 10	None Detected	3% Fiber Glass	97% Other	Black Non Fibrous Heterogeneous
71913987PLM_23					Dissolved
0008C	Black caulking around guard house window frames, Loc 10	None Detected	3% Fiber Glass	97% Other	Black Non Fibrous Heterogeneous
71913987PLM_24					Dissolved

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


Bart Huber (27)

Analyst

Approved Signatory

7/9/13481

Version 1-15-2012

Client:	Pinchin Ltd,	*Instructions: Use Column "B" for your contact info To See an Example Click the bottom Example Tab. Enter samples between "<<" and ">>" Begin Samples with a "<<" above the first sample and end with a ">>" below the last sample. Only Enter your data on the first sheet "Sheet1" Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.	Invoice to:
Contact:	Greg Livingston		ap@pinchin.com
Address:	283 Northfield Drive East,		Email address here
Phone:	Waterloo		
Fax:	519-746-4210		
Email:	519-746-7108		
Project:	glivingston@pinchin.com		
Client Notes:	rlarnsworth@pinchin.com		
P.O. #:	238554, 1 James St Walkerton		
Date Submitted:	ON, City of Brockton		
Analysis:			Scientific Analytical Institute  4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sailab.com
TurnAroundTime:	PLM - Stop Positive 4days		

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

<<		Concrete block mortar, Loc 1	
0001A		Concrete block mortar, Loc 1	
0001B		Concrete block mortar, Loc 3	
0001C		Black insulation on pipe straights and fittings and boiler, Loc 1	
0002A		Black insulation on pipe straights and fittings and boiler, Loc 1	
0002B		Black insulation on pipe straights and fittings and boiler, Loc 1	
0002C		Butyl tape, grey/black on window panes Loc 1	
0003A		Butyl tape, grey/black on window panes Loc 1	
0003B		Butyl tape, grey/black on window panes Loc 1	
0003C		Stippled texture coat on concrete ceiling, Loc 3	
0004A		Stippled texture coat on concrete ceiling, Loc 3	
0004B		Stippled texture coat on concrete ceiling, Loc 3	
0004C		Drywall joint compound, wall/bulkhead, Loc 4	
0005A		Drywall joint compound, wall/bulkhead, Loc 4	
0005B			

Accepted ☒

Rejected ☐

J. Simmons 5.24
10:30A

117115901

0005C
0006A
0006B
0006C
0007A
0007B
0007C
0008A
0008B
0008C
>>

Drywall joint compound, wall/bulkhead, Loc 4
Vinyl floor tile, 12x12 off-white, Loc 6
Vinyl floor tile, 12x12 off-white, Loc 6
Vinyl floor tile, 12x12 off-white, Loc 6
Swirling texture finish on concrete ceiling, Loc 7
Swirling texture finish on concrete ceiling, Loc 7
Swirling texture finish on concrete ceiling, Loc 7
Black caulking around guard house window frames, Loc 10
Black caulking around guard house window frames, Loc 10
Black caulking around guard house window frames, Loc 10

APPENDIX II-B
Lead Analytical Certificates



Analysis for Lead Concentration in Paint Chips

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



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

Attn: Greg Livingston
Ryan Farnsworth

Lab Order ID: 71913955
Analysis ID: 71913955_PBP
Date Received: 5/24/2019
Date Reported: 5/31/2019

Project: 1 James St Walkerton COB

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
L01	Teal paint on metal doors, loc 2	0.0588	< 68	< 0.0068%
71913955PBP_1				
L02	White paint on CB walls, metal deck, loc 3	0.0790	< 51	< 0.0051%
71913955PBP_2				
L03	Blue paint on CB walls, loc 4	0.0588	< 68	< 0.0068%
71913955PBP_3				
L04	Light green paint on CB walls	0.0713	14000	1.4%
71913955PBP_4				

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

Sara Shaut (4)

Analyst

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

Laboratory Director

71913955

Version 1-15-2012

Client:	Pinchin Ltd.	<p>*Instructions:</p> <p>Use Column "B" for your contact info</p> <p>To See an Example Click the bottom Example Tab.</p> <p>Enter samples between "<<" and ">>"</p> <p>Begin Samples with a "<<" above the first sample and end with a ">>" below the last sample.</p> <p>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>
Contact:	Greg Livingston	
Address:	283 Northfield Dr E Waterloo ON	
Phone:	289.925.5409	
Fax:		
Email:	glivingston@pinchin.com rfarnsworth@pinchin.com	
Project:	1 James St Walkerton COB	
Client Notes:	% lead by weight	
P.O. #.		238554
Date Submitted:	May 23 2019	
Analysis:	% lead by weight	
TurnAroundTime:	4 days	

Invoice to:
Accounts payable
ap@pinchin.com

Scientific
Analytical
Institute



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

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
L01		Teal painton metal doors, Loc 2	
L02		White paint on CB walls, metal deck, Loc 3	
L03		Blue paint on CB walls, Loc 4	
L04		Light green paint on CB walls	
>>			

Accepted ☒

Rejected ☐

Benham 5:24
4:30am

APPENDIX II-C
PCB Analytical Certificates

Certificate of Analysis

Greg Livingston

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

Printed: May 30, 2019

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

Project Name: City of Brockton HazMat
Project No.: 238554
Site Location: 1 James St Walkerton

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

Report Number: 19-0871

No.	Analyte	Result	Units	MDL	Comments	Technique / Test Method
1	<u>Sample ID:</u> P01 - Black caulking around exterior guard house windows					
	PCBs in Solid	<0.5	mg/kg	0.5		LAB-M06 (EPA 3550C/8082A modified)

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

Approved By:

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

Lab Manager

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

Fax: (519) 740-2320

Email: SonLe@aevitas.ca

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

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

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

APPENDIX III
Methodology

1.0 GENERAL

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

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

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

1.1 Limitations on Scope

The assessment excludes the following:

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

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

1.2 Asbestos

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

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

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

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

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

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

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

Analytical results are compared to the following criteria.

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.

Methodology for Hazardous Building Materials Assessment