toronto zoo

361A Old Finch Ave.
Toronto, ON M1B 5K7
www.torontozoo.com

Tel: 416-392-5900
Fax: 416-392-5934

2020-03-26

REQUEST FOR TENDER
ORANGUTAN OUTDOOR EXHIBIT CONSTRUCTION
RFT#: TZC T 10-2020-02
ADDENDUM # 5

This addendum shall be incorporated into, and form part of TZC T 10-2020-02 and take precedence over all requirements of the previously issued bid documents including plans. This addendum must be signed by the bidder (signing officer) in the appropriate space and must be attached to the Form for submission by the bidder. This Addendum consists of one (1) page and the documents listed below.

1. **Designated Substance Survey**:
   See attached Pre-demolition Hazardous Building Materials Assessment for the Gaur 1 building (Gaur Pavilion) dated March 26th, 2020. This information is to be used when pricing the demolition of the Guar 1 Building.

Receipt of the Addendum shall be acknowledged as part of your submission.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Quotations or to accept any quotation, should it deem such action to be in its interests.

If you have any queries regarding this matter, please contact Mr. Peter Vasilopoulos, Supervisor, Purchasing & Supply, at 416-392-5916.

Yours truly,

Peter Vasilopoulos
Supervisor, Purchasing & Supply

I/we hereby acknowledge receipt of this addendum and make allowance in my bid.

_____
Signed (Must be Signing Officer of Firm)

_____
Name of Firm

_____
Date:

REVISED

Hazardous Building Materials Assessment

Gaur Pavilion
2000 Meadowvale Road,
Toronto, Ontario

Prepared for:

Toronto Zoo
361A Old Finch Avenue
Toronto, Ontario, M1B 5K7

March 26, 2020

Pinchin File: 271824.000

Issued to:	**Toronto Zoo**
Issued on:	**March 26, 2020**
Pinchin File:	**271824.000**
Issuing Office:	**Toronto, ON**

Author: Andrew Quinn, B.Sc.
Project Manager
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Project Manager
416.368.6555, ext. 1901
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EXECUTIVE SUMMARY

The Toronto Zoo (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Gaur Pavilion building in the Toronto Zoo, located at 2000 Meadowvale Road, Toronto, Ontario. Pinchin performed the assessment on February 26, 2020 and performed additional bulk sampling of the roof on March 24, 2020.

The objective of the assessment was to identify specified hazardous building materials in preparation for the demolition of the Gaur Pavilion building.

SUMMARY OF FINDINGS

Asbestos: No asbestos-containing materials (ACM) were confirmed to be present.

Lead: Low levels of lead (<0.1%) are present in paints sampled. Lead may be present in batteries of emergency lighting.

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

Mercury: Mercury vapour is present in light tubes.

Polychlorinated Biphenyls (PCBs): No PCB-containing devices or materials were confirmed to be present.

Mould: Visible mould growth was not observed at the time of the assessment.

SUMMARY OF RECOMMENDATIONS

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

1. Do not disturb suspected hazardous building materials discovered during the planned work, which have not been identified in this report and arrange for further evaluation and testing.
2. Recycle mercury-containing light tubes when removed from service.
3. Follow appropriate safe work procedures when handling or disturbing lead and silica.

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

APPENDICES

1.0 INTRODUCTION AND SCOPE

The Toronto Zoo (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Gaur Pavilion building in the Toronto Zoo, located at 2000 Meadowvale Road, Toronto, Ontario.

Pinchin performed the assessment on February 26, 2020 and performed additional bulk sampling of the roof on March 24, 2020. 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 identify specified hazardous building materials in preparation for the demolition of the Gaur Pavilion building.

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. This assessment is intended to be used for demolition purposes only and may not provide sufficient detail for long term management of hazardous materials as required by Health and Safety regulations.

The assessed area consisted of all parts of the building, including the roof. The assessed area was defined by the Client and is shown on the drawings in Appendix I.

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

- Asbestos
- Lead
- Silica
- Mercury
- Polychlorinated Biphenyls (PCBs)
- Mould
- Ozone Depleting Substances (ODSs)

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	Zoo animal enclosure and viewing structure
Number of Floors	One level at grade
Total Area	Approximately 2,000 square feet
Year of Construction	The building was constructed in the 1970's
Structure	Concrete, steel, wood
Exterior Cladding	Masonry, wood
HVAC	Rooftop HVAC
Roof	Built-up roofing, sloped metal sheeting
Flooring	Exposed concrete
Interior Walls	Masonry, wood
Ceilings	Wood

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 Pipe Insulation

Pipes are either uninsulated (Photo 1) or insulated with fibreglass, jacketed with paper or PVC (Photo 2).

Photo 1: Pipes uninsulated and insulated with fibreglass and jacketed with paper in the Storage / Mechanical / Electrical Room.

Photo 2: Pipes insulated with fibreglass and jacketed with paper and PVC in the Animal Stalls.

3.1.2 Duct Insulation and Mastic

Ducts are uninsulated (Photo 3).

Duct mastic was not observed to be present on ducts within the building. Grey / green duct mastic present on seams / joints on roof ducts associated with the rooftop HVAC units (Photo 4) does not contain asbestos (samples C055473-S0008A-C).

Photo 3: Uninsulated duct in the Storage / Mechanical / Electrical Room.

Photo 4: Non-asbestos grey / green mastic on an HVAC unit on the roof.

3.1.3 Mechanical Equipment Insulation

Mechanical equipment (hot water tank, HVAC units) are either uninsulated or insulated with fibreglass and jacketed with metal (Photo 5).

Photo 5: Hot water tank in the Storage / Mechanical / Electrical Room.

3.1.4 Vermiculite

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

3.1.5 Sealants, Caulking, and Putty

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

Material, Colour, Photo	Location Description	Sample Number	Asbestos Type
Caulking, grey, Photo 6	Animal Stalls, at top of MDF wall panels	S0001A-C	None detected
Mastic, black / dark brown, Photo 7	Animal Stalls, beneath interlocking rubber flooring	S0002A-C	None detected
Caulking, off-white, Photo 8	Animal Stalls, at base of metal columns	S0003A-C	None detected
Caulking, tan / brown, Photo 9	Animal Stalls, around carpet floor mats	S0004A-C	None detected
Caulking, dark brown, Photo 10	Exterior, around metal door frame into Storage / Mechanical / Electrical Room	S0005A-C	None detected
Caulking, brown, Photo 11	Roof, at top of metal flashing on flat roof	S0007A-C	None detected
Caulking, grey, Photo 12	Storage / Mechanical / Electrical Room, at conduit floor penetrations and base of walls	S0009A-C	None detected
Caulking, brown, Photo 13	Storage / Mechanical / Electrical Room, around metal door frame to Animal Stalls	S0010A-C	None detected

Photo 6: Non-asbestos grey caulking at top of MDF wall panels in the Animal Stalls.

Photo 7: Non-asbestos black / bark brown caulking beneath interlocking rubber flooring in the Animal Stalls.

Photo 8: Non-asbestos off-white caulking at the base of metal columns in the Animal Stalls.

Photo 9: Non-asbestos brown caulking around the carpet floor mats in the Animal Stalls.

Photo 10: Non-asbestos brown caulking around the metal door frame into the Storage / Mechanical / Electrical Room.

Photo 11: Non-asbestos brown caulking at the top of metal flashing on the roof.

Photo 12: Non-asbestos grey caulking at conduit floor penetrations and the base of walls in the Storage / Mechanical / Electrical Room.

Photo 13: Non-asbestos brown caulking around the metal door frame to the Animal Stalls.

3.1.6 Roofing Products

The flat roof section is present over the north portion of the building (Photo 14). The built-up roofing materials were sampled at various locations (samples b227425-S0006A-C and b228437-S0006D-G), and the laboratory detected <0.5% chrysotile asbestos sample b227425-S0006A, *phase c*. All other samples were determined not to contain asbestos. As per O.Reg. 278/05, an asbestos-containing material is a material that contains asbestos at 0.5% or greater by dry weight. Therefore, the roofing materials are not considered to be an asbestos-containing material.

The sloped roof section is present over the south portion of the building. The roof was inspected at various locations beneath the metal sheeting, and no suspect asbestos materials were observed. No sampling was performed.

Photo 14: Non-asbestos roofing over the flat portion of the roof.

3.1.7 Presumed Asbestos Materials

The following is a list of materials which may contain asbestos, which were not observed and/or not sampled during the assessment; these materials are presumed to contain asbestos until otherwise proven by sampling and analysis:

- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring
- Fire resistant doors

3.2 Lead

3.2.1 Paints

The following table presents a summary of paints sampled and their locations.

Sample Number, Photo	Colour, Substrate Description	Location Description	Lead (%)
L0001, Photo 15	Grey paint on metal duct	Animal Stalls	0.014
L0002, Photo 16	Grey paint on metal door frame	Animal Stalls	0.0066
L0003, Photo 17	Green paint on metal post	Exterior	0.034
L0004, Photo 18	Grey paint on poured concrete floor	Storage / Mechanical / Electrical Room	<0.0045
L0005, Photo 19	Brown paint on metal door frame	Exterior entrance to Storage / Mechanical / Electrical Room	<0.0044

All paints sampled were below the threshold of 0.1%. Results less than or equal to 0.1% are considered low-level lead paints or surface coatings in accordance with the EACO guideline.

Photo 15: Grey paint on the metal duct in the Animal Stalls.

Photo 16: Grey paint on the metal door frame in the Animal Stalls.

Photo 17: Green paint on the metal post at the exterior south side of the building.

Photo 18: Grey paint on the poured concrete floor in the Storage / Mechanical / Electrical Room.

Photo 19: Brown paint on the metal exterior door frame at the entrance to the Storage / Mechanical / Electrical Room.

3.2.2 Lead Products and Applications

Lead-containing batteries may be present in emergency lighting (Photo 20).

Photo 20: Emergency lighting in the Viewing Area.

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

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps.

Photo 21: Fluorescent lighting in the Storage / Mechanical / Electrical Room.

3.4.2 Mercury-Containing Devices

Mercury-containing devices were not found during the assessment.

3.5 Polychlorinated Biphenyls

3.5.1 Caulking

The following table presents a summary of caulking sampled and their locations.

Material, Colour, Photo	Location	Sample Number	PCB concentration (ppm)
Caulking, grey, Photo 6	Animal Stalls, at top of MDF wall panels	P0001	<0.5
Caulking, off-white, Photo 8	Animal Stalls, at base of metal columns	P0002	<0.5
Caulking, tan / brown, Photo 9	Animal Stalls, around carpet floor mats	P0003	<0.5
Caulking, dark brown, Photo 10	Exterior, around metal door frame into Storage / Mechanical / Electrical Room	P0004	<0.5
Caulking, brown, Photo 11	Roof, at top of metal flashing on flat roof	P0005	<0.5
Mastic, grey / green, Photo 4	Roof, on seams / joints on roof ducts associated with the HVAC units	P0006	<0.5
Caulking, grey, Photo 12	Storage / Mechanical / Electrical Room, at conduit floor penetrations and base of walls	P0007	<0.5
Caulking, brown, Photo 13	Storage / Mechanical / Electrical Room, around metal door frame to Animal Stalls	P0008	<0.5

All caulking sampled is considered to be a non-PCB solid based on the threshold (50 ppm).

3.5.2 Lighting Ballasts

Based on visual observations (evidence of T-8 fixtures) the building has been comprehensively re-lamped and will not contain PCB ballasts.

3.5.3 Transformers

Transformers were not found during the assessment.

3.6 Mould

Visible mould growth was not found during the assessment.

3.7 Ozone Depleting Substances

HVAC units are present on the flat roof of the building. Based on visual inspection of the affixed manufacturer's plates, the units contain refrigerant R-410A, which is not an ozone depleting substance.

4.0 RECOMMENDATIONS

4.1 General

1. If suspected hazardous building materials are discovered during the planned work, which are not identified in this report, do not disturb and arrange for further testing and evaluation.
2. Provide this revised report to the contractor prior to bidding or commencing work.

4.2 Building Demolition Work

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

4.2.1 Lead

For paints identified as having low levels of lead (i.e., less than the EACO guideline of 0.1% for lead-containing paints but above 0.009%). Special precautions are not recommended unless aggressive disturbance (grinding, blasting, torching) is planned.

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

4.2.2 Silica

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

4.2.3 Mercury

Do not break lamps. 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.

4.2.4 Mould

No mould was observed; if mould is uncovered inside wall cavities during hand demolition, use appropriate precautions and protect workers using methods that comply with provincial guidelines.

5.0 TERMS AND LIMITATIONS

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

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

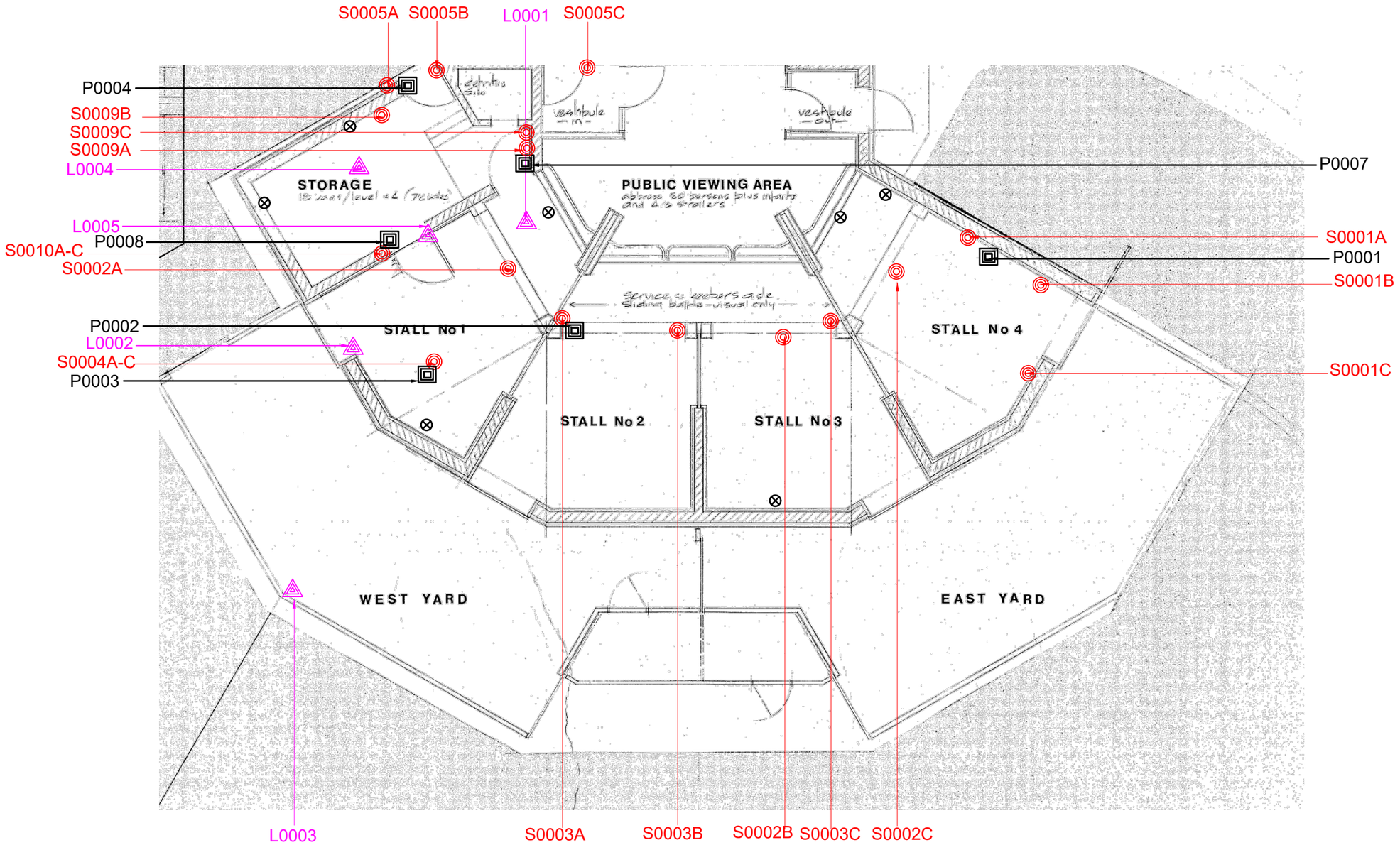
6.0 REFERENCES

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

1. 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.
5. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
6. Silica on Construction Projects, Ministry of Labour Guidance Document.
7. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.

APPENDIX I

Drawings



LEGEND

- ASBESTOS BULK SAMPLE
- LEAD PAINT SAMPLE
- PCB BULK SAMPLE
- VERMICULITE DRILLING

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.

PINCHIN

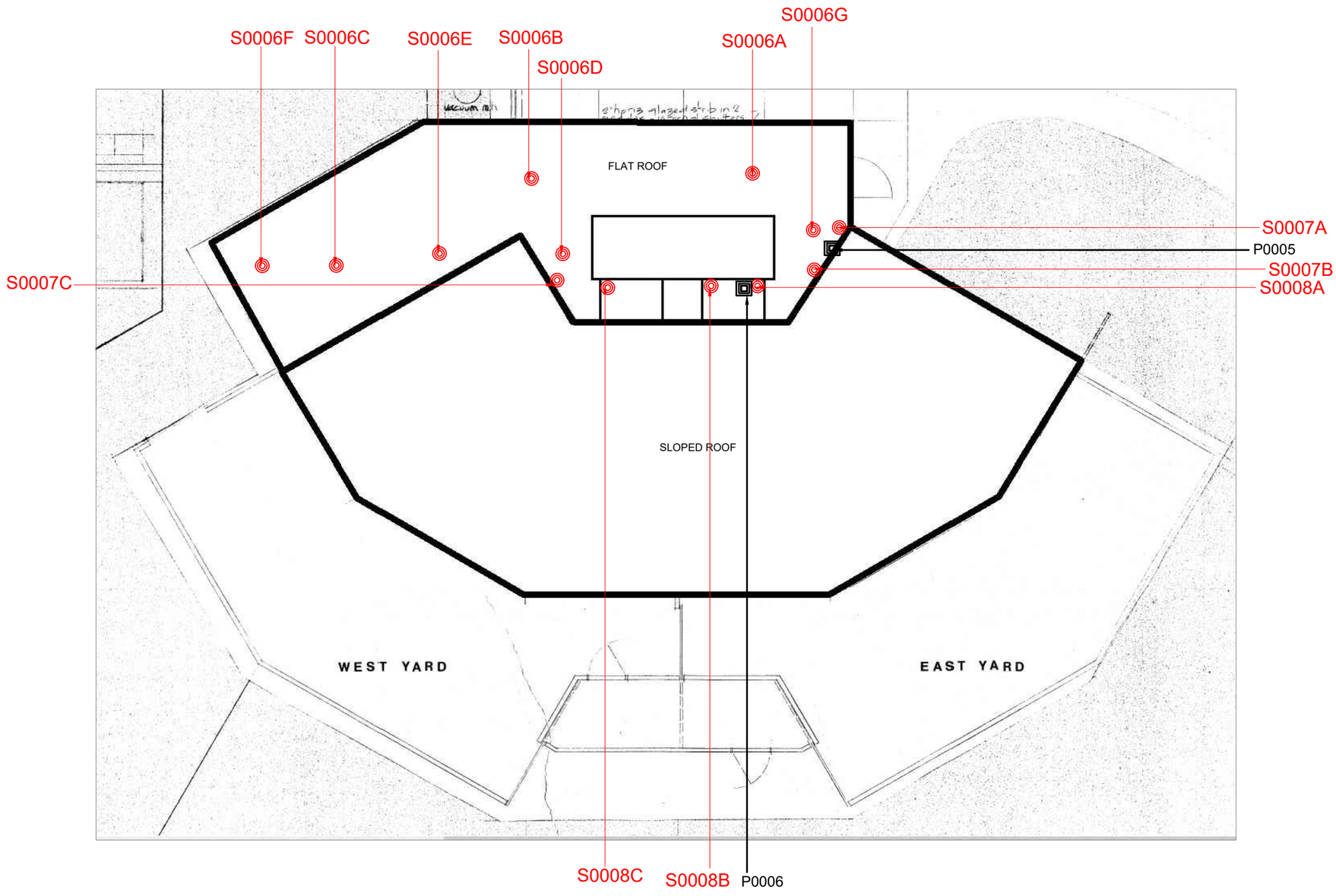
PROJECT NAME:
HAZARDOUS BUILDING MATERIAL ASSESSMENT

CLIENT NAME:
TORONTO ZOO

PROJECT LOCATION:
GAUR EXHIBIT BUILDING
2000 MEADOWVALE ROAD
TORONTO, ONTARIO

FIGURE NAME:
GROUND FLOOR

PROJECT NUMBER:	SCALE:
271824.000	NOT TO SCALE
DRAWN BY:	REVIEWED BY:
TT	AQ
DATE:	FIGURE NUMBER:
FEBUARY 2020	1 OF 2



LEGEND

- ASBESTOS BULK SAMPLE
- LEAD PAINT SAMPLE
- PCB BULK SAMPLE
- VERMICULITE DRILLING

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.

PINCHIN

PROJECT NAME:
HAZARDOUS BUILDING MATERIAL ASSESSMENT

CLIENT NAME:
TORONTO ZOO

PROJECT LOCATION:
GAUR EXHIBIT BUILDING
2000 MEADOWVALE ROAD
TORONTO, ONTARIO

FIGURE NAME:
ROOF

PROJECT NUMBER:	SCALE:
271824.000	NOT TO SCALE
DRAWN BY:	REVIEWED BY:
TT	AQ
DATE:	FIGURE NUMBER:
FEBUARY 2020	2 OF 2

APPENDIX II-A

Asbestos Analytical Certificates

Your Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Your C.O.C. #: na

Attention: Andrew Quinn

Pinchin Ltd
2470 Milltower Crt
Mississauga, ON
CANADA L5N 7W5

Report Date: 2020/03/06
Report #: R6100591
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C055473
Received: 2020/03/02, 10:10

Sample Matrix: Solid
Samples Received: 27

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Asbestos by PLM - 0.5 RDL (1)	27	N/A	N/A	COR3SOP-00002	EPA 600R-93/116

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Bureau Veritas Laboratories' Asbestos Laboratory is accredited by NVLAP for bulk asbestos analysis by polarized light microscopy, NVLAP Code 600136-0.

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Bureau Veritas Laboratories' scope of accreditation includes EPA-600/M4-82-020: "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" and EPA-600/R-93/116: "Method for the Determination of Asbestos in Bulk Building Materials".

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) P.O.B. - Percent of Bulk

When Asbestos data is reported with other data, this report contains data that are not covered by the NVLAP accreditation.

Your Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Your C.O.C. #: na

Attention: Andrew Quinn

Pinchin Ltd
2470 Milltower Crt
Mississauga, ON
CANADA L5N 7W5

Report Date: 2020/03/06
Report #: R6100591
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C055473
Received: 2020/03/02, 10:10

Encryption Key

Bureau Veritas Laboratories
06 Mar 2020 17:05:31

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bvlabs.com
Phone# (905)817-5817
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0001A WALL,GREY CAULKING AT TOP OF MDF PANELS,LOC:2,PENS

BV Labs ID: MDF557 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous grey caulking	Not Detected		Non-Fibrous

S0001B WALL,GREY CAULKING AT TOP OF MDF PANELS,LOC:2,PENS

BV Labs ID: MDF558 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous grey caulking	Not Detected		Non-Fibrous

S0001C WALL,GREY CAULKING AT TOP OF MDF PANELS,LOC:2,PENS

BV Labs ID: MDF559 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous grey caulking	Not Detected		Non-Fibrous

S0002A FLOOR,BLACK ADHESIVE/MASTIC UNDER RUBBER INTERLOCKING FLOORING,LOC:2,PENS

BV Labs ID: MDF560 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown adhesive	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0002B FLOOR,BLACK ADHESIVE/MASTIC UNDER RUBBER INTERLOCKING FLOORING,LOC:2,PENS

BV Labs ID: MDF561 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown adhesive	Not Detected		Non-Fibrous

S0002C FLOOR,BLACK ADHESIVE/MASTIC UNDER RUBBER INTERLOCKING FLOORING,LOC:2,PENS

BV Labs ID: MDF562 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown adhesive	Not Detected		Non-Fibrous

S0003A STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS

BV Labs ID: MDF563 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous off-white caulking	Not Detected		Non-Fibrous

S0003B STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS

BV Labs ID: MDF564 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous off-white caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0003C STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS

BV Labs ID: MDF565 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous off-white caulking	Not Detected		Non-Fibrous

S0004A OTHER,BROWN CAULKING AROUND CARPET FLOOR MATS,LOC:2,PENS

BV Labs ID: MDF566 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous tan caulking	Not Detected		Non-Fibrous

S0004B OTHER,BROWN CAULKING AROUND CARPET FLOOR MATS,LOC:2,PENS

BV Labs ID: MDF567 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous tan caulking	Not Detected		Non-Fibrous

S0004C OTHER,BROWN CAULKING AROUND CARPET FLOOR MATS,LOC:2,PENS

BV Labs ID: MDF568 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous tan caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0005A OTHER,DARK BROWN CAULKING AROUND EXTERIOR OF METAL DOOR FRAME,ENTRANCE TO MECHANICAL/ELECTRICAL

BV Labs ID: MDF569 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

S0005B OTHER,DARK BROWN CAULKING AROUND EXTERIOR OF METAL DOOR FRAME,ENTRANCE TO MECHANICAL/ELECTRICAL

BV Labs ID: MDF570 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

S0005C OTHER,DARK BROWN CAULKING AROUND EXTERIOR OF METAL DOOR FRAME,ENTRANCE TO MECHANICAL/ELECTRICAL

BV Labs ID: MDF571 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, “<0.50%”. “Not Detected” indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0007A OTHER,BROWN CAULKING AT TOP OF METAL FLASHING,LOC:4,ROOFTOP

BV Labs ID: MDF572 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

S0007B OTHER,BROWN CAULKING AT TOP OF METAL FLASHING,LOC:4,ROOFTOP

BV Labs ID: MDF573 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

S0007C OTHER,BROWN CAULKING AT TOP OF METAL FLASHING,LOC:4,ROOFTOP

BV Labs ID: MDF574 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

S0008A MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP

BV Labs ID: MDF575 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous green caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0008B MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP

BV Labs ID: MDF576 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous green caulking	Not Detected		Non-Fibrous

S0008C MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP

BV Labs ID: MDF577 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous green caulking	Not Detected		Non-Fibrous

S0009A PIPING,GREY CAULKING AT THE BASE OF IRON DRAIN PIPE,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL

BV Labs ID: MDF578 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous grey caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0009B PIPING,GREY CAULKING AT THE BASE OF CONDUIT,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL

BV Labs ID: MDF579 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous grey caulking	Not Detected		Non-Fibrous

S0009C PIPING,GREY CAULKING AT THE BASE OF WALL,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL

BV Labs ID: MDF580 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous grey caulking	Not Detected		Non-Fibrous

S0010A OTHER,BROWN CAULKING AROUND DOOR FRAME TO PENS,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL

BV Labs ID: MDF581 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

Asbestos Analytical Results

EPA/600R-93/116 by Polarized Light Microscopy

S0010B OTHER,BROWN CAULKING AROUND DOOR FRAME TO PENS,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL

BV Labs ID: MDF582 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

S0010C OTHER,BROWN CAULKING AROUND DOOR FRAME TO PENS,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL

BV Labs ID: MDF583 Date Analyzed: 2020/03/06

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous brown caulking	Not Detected		Non-Fibrous

The limit of quantitation is 0.50%, although asbestos may be qualitatively detected at concentrations less than 0.50%. Samples for which asbestos is detected at <0.50% are reported as trace, "<0.50%". "Not Detected" indicates that no asbestos fibres were observed.

Calibrated Visual Estimate (%)
Date Format : yyyy/mm/dd

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

TEST SUMMARY

BV Labs ID: MDF557 **Collected:** 2020/02/26
Sample ID: S0001A WALL,GREY CAULKING AT TOP OF MDF PANELS,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF558 **Collected:** 2020/02/26
Sample ID: S0001B WALL,GREY CAULKING AT TOP OF MDF PANELS,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF559 **Collected:** 2020/02/26
Sample ID: S0001C WALL,GREY CAULKING AT TOP OF MDF PANELS,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF560 **Collected:** 2020/02/26
Sample ID: S0002A FLOOR,BLACK ADHESIVE/MASTIC UNDER RUBBER INTERLOCKING FLOORING,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF561 **Collected:** 2020/02/26
Sample ID: S0002B FLOOR,BLACK ADHESIVE/MASTIC UNDER RUBBER INTERLOCKING FLOORING,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF562 **Collected:** 2020/02/26
Sample ID: S0002C FLOOR,BLACK ADHESIVE/MASTIC UNDER RUBBER INTERLOCKING FLOORING,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF563 **Collected:** 2020/02/26
Sample ID: S0003A STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

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BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

TEST SUMMARY

BV Labs ID: MDF564
Sample ID: S0003B STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF565
Sample ID: S0003C STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF565 Dup
Sample ID: S0003C STRUCTURE,CAULKING,OFF-WHITE,ON METAL POST BASE,LOC:2,PENS
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF566
Sample ID: S0004A OTHER,BROWN CAULKING AROUND CARPET FLOOR MATS,LOC:2,PENS
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF567
Sample ID: S0004B OTHER,BROWN CAULKING AROUND CARPET FLOOR MATS,LOC:2,PENS
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF568
Sample ID: S0004C OTHER,BROWN CAULKING AROUND CARPET FLOOR MATS,LOC:2,PENS
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF569
Sample ID: S0005A OTHER,DARK BROWN CAULKING AROUND EXTERIOR OF METAL DOOR FRAME,ENTRANCE TO MECHANICAL/ELECTRICAL
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

TEST SUMMARY

BV Labs ID: MDF570
Sample ID: S0005B OTHER,DARK BROWN CAULKING AROUND EXTERIOR OF METAL DOOR FRAME,ENTRANCE TO MECHANICAL/ELECTRICAL
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF571
Sample ID: S0005C OTHER,DARK BROWN CAULKING AROUND EXTERIOR OF METAL DOOR FRAME,ENTRANCE TO MECHANICAL/ELECTRICAL
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF572
Sample ID: S0007A OTHER,BROWN CAULKING AT TOP OF METAL FLASHING,LOC:4,ROOFTOP
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF573
Sample ID: S0007B OTHER,BROWN CAULKING AT TOP OF METAL FLASHING,LOC:4,ROOFTOP
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF574
Sample ID: S0007C OTHER,BROWN CAULKING AT TOP OF METAL FLASHING,LOC:4,ROOFTOP
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF575
Sample ID: S0008A MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF575 Dup
Sample ID: S0008A MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP
Matrix: Solid
Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

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BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

TEST SUMMARY

BV Labs ID: MDF576 **Collected:** 2020/02/26
Sample ID: S0008B MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF577 **Collected:** 2020/02/26
Sample ID: S0008C MECHANICAL EQUIPMENT,GREY CAULKING ON ROOFTOP AIR UNIT AT DUCT,LOC:4,ROOFTOP **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF578 **Collected:** 2020/02/26
Sample ID: S0009A PIPING,GREY CAULKING AT THE BASE OF IRON DRAIN PIPE,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF579 **Collected:** 2020/02/26
Sample ID: S0009B PIPING,GREY CAULKING AT THE BASE OF CONDUIT,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF580 **Collected:** 2020/02/26
Sample ID: S0009C PIPING,GREY CAULKING AT THE BASE OF WALL,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF581 **Collected:** 2020/02/26
Sample ID: S0010A OTHER,BROWN CAULKING AROUND DOOR FRAME TO PENS,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs ID: MDF582 **Collected:** 2020/02/26
Sample ID: S0010B OTHER,BROWN CAULKING AROUND DOOR FRAME TO PENS,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL **Shipped:**
Matrix: Solid **Received:** 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

TEST SUMMARY

BV Labs ID: MDF583
Sample ID: S0010C OTHER,BROWN CAULKING AROUND DOOR FRAME TO PENS,LOC:1,ENTRANCE MECHANICAL/ELECTRICAL
Matrix: Solid

Collected: 2020/02/26
Shipped:
Received: 2020/03/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Asbestos by PLM - 0.5 RDL	MIC	6621871	N/A		Jasser Daoud

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GENERAL COMMENTS

Results relate only to the items tested.

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FUNDAMENTAL LABORATORY ACCEPTANCE GUIDELINE

Invoice To:
Pinchin Ltd
ATTN: Accounts Payable
2470 Milltower Crt
Mississauga, ON
CANADA L5N 7W5
Client Contact:
Andrew Quinn

BV Labs Job #:	C055473
Date Received:	2020/03/02
Your C.O.C. #:	na
Your Project #:	271824.000
BV Labs Project Manager:	Antonella Brasil
Quote #:	B84940

No discrepancies noted.

Report Comments

Received Date:	**2020/03/02**	**Time:**	**10:10**	**By:**	
Inspected Date:		**Time:**		**By:**	
FLAG Created Date:		**Time:**		**By:**	

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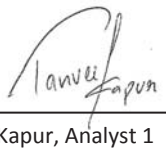
BV Labs Job #: C055473
Report Date: 2020/03/06

Pinchin Ltd
Client Project #: 271824.000
Site Location: 2000 MEADOWVALE ROAD, TORONTO, ON
Sampler Initials: JS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Tanvee Kapur, Analyst 1

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

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RUSH

02-Mar-20 10:10
Antonella Brasil
C055473

J_L ENV-111

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

Client Name:	Toronto Zoo	**Project Address:**	2000 Meadowvale Road, Toronto, ON
Portfolio/Building No:	Pre-Demolition DSS - Gaur Exhibit Building	**Pinchin File:**	271824.000
Submitted by:	Joshua Samuel	**Email:**	jsamuel@pinchin.com
CC Results to:	Andrew Quinn	**CC Email:**	aquinn@pinchin.com
Date Submitted:	February 26 2020	**Required by:**	March 4 2020
# of Samples:	30 27	**Priority:**	5 Day Turnaround
Year of Building Construction (*Mandatory, Years ONLY*):		1970	
Do NOT Stop on Positive (Sample Numbers):			
Pinchin Group Company (*Mandatory Field*):		Pinchin	
HMIS2 Building Reference #:		69035/202012647041904	
To be Completed by Lab Personnel Only:			
Lab Reference #:		**Time:** 10:10	24 hour clock
Received by:	Tsung Lin 2020/03/02	**Date:** 00/03/02	Month Day Year
Name(s) of Analyst(s):			

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)	
S	0001	A	Wall, Grey Caulking at top of MDF panels,Loc:2,Pens	1
S	0001	B	Wall, Grey Caulking at top of MDF panels,Loc:2,Pens	1
S	0001	C	Wall, Grey Caulking at top of MDF panels,Loc:2,Pens	1
S	0002	A	Floor, Black Adhesive/Mastic Under Rubber Interlocking Flooring,Loc:2,Pens	1
S	0002	B	Floor, Black Adhesive/Mastic Under Rubber Interlocking Flooring,Loc:2,Pens	1
S	0002	C	Floor, Black Adhesive/Mastic Under Rubber Interlocking Flooring,Loc:2,Pens	1
S	0003	A	Structure,Caulking,Off-white, On Metal Post Base,Loc:2,Pens	1
S	0003	B	Structure,Caulking,Off-white, On Metal Post Base,Loc:2,Pens	1
S	0003	C	Structure,Caulking,Off-white, On Metal Post Base,Loc:2,Pens	1
S	0004	A	Other,Brown Caulking Around Carpet Floor Mats,Loc:2,Pens	1

S	0004	B	Other,Brown Caulking Around Carpet Floor Mats,Loc:2,Pens	1
S	0004	C	Other,Brown Caulking Around Carpet Floor Mats,Loc:2,Pens	1
S	0005	A	Other,Dark Brown Caulking Around Exterior of Metal Door Frame,Entrance to Mechanical/Electrical	1
S	0005	B	Other,Dark Brown Caulking Around Exterior of Metal Door Frame,Entrance to Mechanical/Electrical	1
S	0005	C	Other,Dark Brown Caulking Around Exterior of Metal Door Frame,Entrance to Mechanical/Electrical	1
S	0007	A	Other,Brown Caulking at top of metal Flashing,Loc:4,Rooftop	5
S	0007	B	Other,Brown Caulking at top of metal Flashing,Loc:4,Rooftop	5
S	0007	C	Other,Brown Caulking at top of metal Flashing,Loc:4,Rooftop	5
S	0008	A	Mechanical Equipment,Grey Caulking On Rooftop Air Unit at Duct,Loc:4,Rooftop	1
S	0008	B	Mechanical Equipment,Grey Caulking On Rooftop Air Unit at Duct,Loc:4,Rooftop	1
S	0008	C	Mechanical Equipment,Grey Caulking On Rooftop Air Unit at Duct,Loc:4,Rooftop	1
S	0009	A	Piping,Grey Caulking At The Base Of Iron Drain Pipe,Loc:1,Entrance Mechanical/Electrical	1
S	0009	B	Piping,Grey Caulking At The Base Of Conduit,Loc:1,Entrance Mechanical/Electrical	1
S	0009	C	Piping,Grey Caulking At The Base Of Wall,Loc:1,Entrance Mechanical/Electrical	1
S	0010	A	Other,Brown Caulking Around Door Frame to Pens,Loc:1,Entrance Mechanical/Electrical	1
S	0010	B	Other,Brown Caulking Around Door Frame to Pens,Loc:1,Entrance Mechanical/Electrical	1
S	0010	C	Other,Brown Caulking Around Door Frame to Pens,Loc:1,Entrance Mechanical/Electrical	1

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name:	**Toronto Zoo, Pre-Demolition DSS - Gaur Exhibit Building, 2000 Meadowvale Road, Toronto, ON**		
Project No.:	**0271824.000**		
Prepared For:	**J. Samuel / A. Quinn**	**Date Received:**	**February 28, 2020**
Lab Reference No.:	**b227425**	**Date Analyzed:**	**March 9, 2020**
Analyst(s):	**L. DeCurtis**	**# Samples submitted:**	**3**
		# Phases analyzed:	**7**

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.

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.

The Pinchin Ltd. Mississauga asbestos laboratory is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of 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.

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Toronto Zoo, Pre-Demolition DSS - Gaur Exhibit Building, 2000 Meadowvale Road, Toronto, ON
Project No.: 0271824.000
Prepared For: J. Samuel / A. Quinn

Lab Reference No.: b227425
Date Analyzed: March 9, 2020

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0006A Other,Black Roofing Materials,Loc:4,Rooftop	3 Phases: a) Non-homogeneous, tan and black, layered paper and tar.	None Detected	Cellulose > 75% Tar and other non-fibrous 10-25%
	b) Homogeneous, shiny tar material on layered paper.	None Detected	Tar and other non-fibrous > 75%
	c) Non-homogeneous, black, layered roofing material.	Chrysotile < 0.5%	Cellulose 50-75% Tar and other non-fibrous 25-50%
Comments:	This sample is large in size. A representative portion was taken and analyzed.		
S0006B Other,Black Roofing Materials,Loc:4,Rooftop	Non-homogeneous, black, layered roofing material.	None Detected	Cellulose 50-75% Tar and other non-fibrous 25-50%
Comments:	This sample is large in size. A representative portion was taken and analyzed.		

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Toronto Zoo, Pre-Demolition DSS - Gaur Exhibit Building, 2000 Meadowvale Road, Toronto, ON
Project No.: 0271824.000
Prepared For: J. Samuel / A. Quinn

Lab Reference No.: b227425
Date Analyzed: March 9, 2020

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0006C Other,Black Roofing Materials,Loc:4,Rooftop	3 Phases: a) Non-homogeneous, tan and black, layered paper and tar.	None Detected	Cellulose > 75% Tar and other non-fibrous 10-25%
	b) Homogeneous, shiny tar material on layered paper.	None Detected	Tar and other non-fibrous > 75%
	c) Non-homogeneous, black, layered roofing material.	None Detected	Cellulose 50-75% Synthetic Fibres 0.5-5% Tar and other non-fibrous 25-50%
Comments:	This sample is large in size. A representative portion was taken and analyzed.		

Reviewed by:

Digitally signed by Iman Yousuf
Date: 2020.03.09 15:42:55 -04'00'

Reporting Analyst:

Digitally signed by Iman Yousuf
Date: 2020.03.09 15:42:40 -04'00'

Analyzed by: ZD
Reviewed by: KB
Report Sent by: IY

remaining samples sent to BV - feb 28

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

Client Name:	Toronto Zoo	**Project Address:**	2000 Meadowvale Road, Toronto, ON
Portfolio/Building No:	Pre-Demolition DSS - Gaur Exhibit Building	**Pinchin File:**	271824.000
Submitted by:	Joshua Samuel	**Email:**	jsamuel@pinchin.com
CC Results to:	Andrew Quinn	**CC Email:**	aquinn@pinchin.com
Date Submitted:	February 26 2020	**Required by:**	March 4 2020
# of Samples:	30 3	**Priority:**	5 Day Turnaround
Year of Building Construction (*Mandatory, Years ONLY*):	1970		
Do NOT Stop on Positive (Sample Numbers):			
Pinchin Group Company (*Mandatory Field*):	Pinchin		
HMIS2 Building Reference #:	69035/202012647041904		
To be Completed by Lab Personnel Only:			
Lab Reference #:	b227425 IY	**Time:**	24 hour clock
Received by:	FEB 28 2020	**Date:**	Month Day Year
Name(s) of Analyst(s):	ZD 2020/3/9		

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)	
S	0006	A	Other,Black Roofing Materials,Loc:4,Rooftop a) ND b) ND c) CH<0.5%	1
S	0006	B	Other,Black Roofing Materials,Loc:4,Rooftop ND	1
S	0006	C	Other,Black Roofing Materials,Loc:4,Rooftop a) ND b) ND c) ND	1
				1
				1
				1
				1
				1
				1
				1

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name:	**Toronto Zoo, 2000 Meadowvale Road, Toronto, ON Pre-Demolition DSS--Gaur Exhibit Building**		
Project No.:	**0271824.000**		
Prepared For:	**J. Samuel / A. Quinn**	**Date Received:**	**March 24, 2020**
Lab Reference No.:	**b228437**	**Date Analyzed:**	**March 25, 2020**
Analyst(s):	**L. DeCurtis**	**# Samples submitted:**	**4**
		# Phases analyzed:	**2**

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.

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.

The Pinchin Ltd. Mississauga asbestos laboratory is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of 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.

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Toronto Zoo, 2000 Meadowvale Road, Toronto, ON
Pre-Demolition DSS--Gaur Exhibit Building
Project No.: 0271824.000
Prepared For: J. Samuel / A. Quinn

Lab Reference No.: b228437
Date Analyzed: March 25, 2020

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0006D Other, Black Roofing Materials, Loc:4, Rooftop	2 Phases: a) Non-homogeneous, tan and black, layered paper and tar. b) Homogeneous, black, shiny tar material on layered paper.	None Detected None Detected	Cellulose > 75% Tar and other non-fibrous 10-25% Tar and other non-fibrous > 75%
Comments:	Another phase is present but was not analyzed.		
S0006E Other, Black Roofing Materials, Loc:4, Rooftop			Not Analyzed
Comments:	This sample was not analyzed, as requested.		
S0006F Other, Black Roofing Materials, Loc:4, Rooftop			Not Analyzed
Comments:	This sample was not analyzed, as requested.		
S0006G Other, Black Roofing Materials, Loc:4, Rooftop			Not Analyzed
Comments:	This sample was not analyzed, as requested.		

Reviewed by:

Digitally signed by Iman Yousuf
Date: 2020.03.25 16:31:30 -04'00'

Reporting Analyst:

Digitally signed by Iman Yousuf
Date: 2020.03.25 16:31:14 -04'00'

Analyzed by:
Reviewed by:
Report Sent by:

no COC

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

Client Name:	Toronto Zoo			**Project Address:**	2000 Meadowvale Road, Toronto, ON		
Portfolio/Building No:	Pre-Demolition DSS - Gaur Exhibit Building			**Pinchin File:**	271824.000		
Submitted by:	Joshua Samuel			**Email:**	jsamuel@pinchin.com		
CC Results to:	Andrew Quinn			**CC Email:**	aquinn@pinchin.com		
Date Submitted:	March	24	2020	**Required by:**	March	25	2020
# of Samples:	4			**Priority:**	Rush Turnaround		
Year of Building Construction (*Mandatory, Years ONLY*):	1970						
Do NOT Stop on Positive (Sample Numbers):	See Instructions section below						
Pinchin Group Company (*Mandatory Field*):	Pinchin						
HMIS2 Building Reference #:							
To be Completed by Lab Personnel Only:							
Lab Reference #:	b228437			**Time:**	24 hour clock		
Received by:	MAR 24 2020			**Date:**	Month	Day	Year
Name(s) of Analyst(s):	DD	20/3/25					

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
S	0006	D	Other,Black Roofing Materials,Loc:4,Rooftop a)ND b)ND
S	0006	E	Other,Black Roofing Materials,Loc:4,Rooftop NA
S	0006	F	Other,Black Roofing Materials,Loc:4,Rooftop NA
S	0006	G	Other,Black Roofing Materials,Loc:4,Rooftop NA

*****Instructions:**

Only analyze the following two sample phases:
a) Non-homogeneous, tan and black, layered paper and tar.
b) Homogeneous, shiny tar material on layered paper.

For the entire sample set (D-G), please only analyze 1 instance of each of the above two phases described. Only 2 phases to be analyzed total. If only 1 of the 2 phases is present in any of the 4 samples, only analyze 1 sample phase total. If none of the 2 phases is present in any of the 4 samples, do not analyze any of the phases. Please do not analyze additional phases.

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.
50 Wellington Street East
Suite 200
Toronto, ON M5E 1C8

Attn: Andrew Quinn

Project: 271824.000 Pre-Demolition DSS - Gaur Exhibit 2000 Meadowvale Road, Toronto

Lab Order ID: 71937605
Analysis ID: 71937605_PBP
Date Received: 3/2/2020
Date Reported: 3/6/2020
Date Amended: *3/6/2020*

Sample ID *Lab Sample ID*	Description *Lab Notes*	Mass *(g)*	Concentration *(ppm)*	Concentration *(% by weight)*
L0001 71937605PBP_1	Grey Paint On Metal Duct,Loc:2,Pens	0.0726	140	**0.014%**
L0002 71937605PBP_2	Grey Paint On Metal Door Frame,Loc:2,Pens	0.0674	66	**0.0066%**
L0003 71937605PBP_3	Green Paint On Metal Post,Loc:5,Outdoor	0.0883	340	**0.034%**
L0004 71937605PBP_4	Grey Paint On Poured Concrete Floor,Loc:1,Entrance Mechanical/Electrical	0.0888	< 45	**< 0.0045%**
L0005 71937605PBP_5	Brown Paint On Metal Door Frame,Loc:1,Entrance Mechanical/Electrical	0.0366	< 44	**< 0.0044%**

Sara Shaut (5)

Analyst

Laboratory Director

71937605

Client:	Pinchin Ltd.	***Instructions:***	*Version 1-15-2012*
Contact:	Andrew Quinn	*Use Column "B" for your contact info*	
Address:	50 Wellington Street East, Unit 200, Toronto, Ontario		
Phone:		*To See an Example Click the*	
Fax:		*bottom Example Tab.*	Invoice to:
Email:	aquinn@pinchin.com		Andrew Quinn
			aquinn@pinchin.com
Project:	Pre-Demolition DSS - Gaur Exhibit I	***Begin Samples with a "<< "above the first sample***	***Scientific***
	2000 Meadowvale Road, Toronto, C	***and end with a ">>" below the last sample.***	***Analytical***
Client Notes:	Toronto Zoo	*Only Enter your data on the first sheet "Sheet1"*	***Institute***
P.O. #.	271824.000	*Note: Data 1 and Data 2 are optional*	***4604 Dundas Dr.***
Date Submitted:	02-26-2020	*fields that do not show up on the official*	***Greensboro, NC 27407***
		report, however they will be included	***Phone: 336.292.3888***
Analysis:	Paint Chips Flame AA	*in the electronic data returned to you*	***Fax: 336.292.3313***
TurnAroundTime:	Regular - 5 Days	*to facilitate your reintegration of the report data.*	***Email: lab@sailab.com***

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
L0001		Grey Paint On Metal Duct,Loc:2,Pens	
L0002		Grey Paint On Metal Door Frame,Loc:2,Pens	
L0003		Green Paint On Metal Post,Loc:5,Outdoor	
L0004		Grey Paint On Poured Concrete Floor,Loc:1,Entrance Mechanical/Electrical	
L0005		Brown Paint On Metal Door Frame,Loc:1,Entrance Mechanical/Electrical	
>>			

Accepted ☑

Rejected ☐

3/2, 10:30 AM

APPENDIX II-C

PCB Analytical Certificates

AEVITAS INC. (AYR)
ANALYTICAL CHEMISTRY DEPARTMENT
75 WANLESS COURT, AYR, ONTARIO, N0B 1E0, CANADA
WWW.AEVITAS.CA

Certificate of Analysis

Andrew Quinn

Pinchin Ltd. (Toronto)
50 Wellington Street East, Toronto, Ontario, M5E 1C8, Canada

Date of Issue: Mar 06, 2020

Report Description: ***8 solid samples were submitted for the following chemical analysis***

Project Name:	Pre-Demolition DSS - Gaur Exhibit Building	**Date Sampled:**	Feb 26, 2020
Project No.:	271824.000	**Date Tested:**	Mar 05, 2020
Site Location:	2000 Meadowvale Road, Toronto, ON	**Sampled by:**	Andrew & Joshua

Report Number: 20-0306

No.	Analyte	Result	Units	MDL	Comments	Technique / Test Method
1	*Sample ID.:* ***P0001 Grey Caulking at Top of MDF Panels, Loc:2, Pens***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
2	*Sample ID.:* ***P0002 Off-White Caulking on Metal Post Base, Loc:2, Pens***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
3	*Sample ID.:* ***P0003 Brown Caulking Around Carpet Floor Mats, Loc:2, Pens***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
4	*Sample ID.:* ***P0004 Dark Brown Caulking Around Exterior of Metal Door Frame, Entrance to Mechanical/ Electrical***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
5	*Sample ID.:* ***P0005 Brown Caulking at Top of Metal Flashing, Loc:4, Rooftop***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
6	*Sample ID.:* ***P0006 Grey Caulking on Rooftop Air Unit at Duct, Loc:4, Rooftop***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
7	*Sample ID.:* ***P0007 Grey Caulking at Base Of Iron Drain Pipe, Loc:1 Entrance to Mechanical/ Electrical***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)
8	*Sample ID.:* ***P0008 Brown Caulking Around Door Frame to Pens, Loc: 1, Entrance to Mechanical/ Electrical***					
	PCBs in Solid	**<0.5**	ug/g	0.5		LAB-M06 (EPA 3550C/8082A modified)

Report Number: 20-0306

No.	Analyte	Result	Units	MDL	Comments	Technique / Test Method

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.);
- Structural components, inaccessible or concealed materials or other items where sampling may cause consequential damage to the property;
- Energized systems (e.g. internal boiler components, elevators, mechanical or electrical components);
- Controlled products (e.g. stored chemicals, operational or process-related substances); and
- Materials not typically associated with construction (e.g. settled dust, spills, residual contamination from prior spills, etc.).

The assessment includes demolition of wall and ceiling finishes to view concealed conditions at representative areas as permitted by the current building use. Destructive testing of flooring is conducted where possible (under multiple layers of flooring). Demolition of exterior building finishes, masonry walls (chases, shafts etc.), and structural items is conducted as permitted by the current building use.

This proposal is based on all materials being accessible to the Pinchin assessor with a standard 6-foot ladder.

Pinchin is not responsible or liable for damage caused by sampling and/or intrusive investigations.

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.

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

Limited demolition of masonry block walls (core holes) is conducted to investigate for loose fill vermiculite insulation. The core holes are temporarily patched with a suitable product.

The following materials (if present) are not sampled and will be presumed to contain asbestos.

- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring
- Fire resistant doors

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%

For select materials, the asbestos analysis is completed using a stop positive approach. Only one result meeting the above regulated criteria is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos. The laboratory stops analyzing samples from a homogeneous material once a result equal to or greater than the regulated criteria is detected in any of the samples of that material. All samples of a homogeneous material are analyzed if no asbestos is detected. In some cases, all samples are analyzed in the sample set regardless of result.

Where building materials are described in the report as “non-asbestos” 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%). Exposure from construction disturbance of paints containing lead less than 0.009% is assumed to be insignificant. 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.

Exterior 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.

1.8 Ozone Depleting Substances

Pinchin determines the potential presence of ODS (chlorofluorocarbon, hydrochlorofluorocarbon, hydrofluorocarbon, halon, etc.) in air conditioning units, chillers, commercial coolers and fire suppression systems by visual inspection of manufactures' labels or plates if present on the equipment. Domestic type equipment such as window mounted and small central air conditioners, refrigerators, and freezers are not evaluated for the presence of ODS.