Asbestos Assessment

St. Joachim
75 Concerto Crescent, Ancaster,
ON, L9G 4V6

Prepared for:

Hamilton-Wentworth Catholic
District School Board
90 Mulberry Street
Hamilton, Ontario, L8N 3R9

August 31, 2023

Pinchin File: 320582.004

Issued to:	**Hamilton-Wentworth Catholic District School Board**
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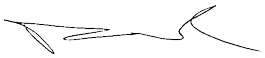

Reviewer: Damian Palus, C.E.T.
Operations Manager
289.678.0694
dpalus@pinchin.com

EXECUTIVE SUMMARY

Hamilton-Wentworth Catholic District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct an asbestos building materials assessment of St. Joachim located at 75 Concerto Crescent, Ancaster, ON, L9G 4V6.

The objectives of the assessment were to document the locations of asbestos 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.

SUMMARY OF RECOMMENDATIONS

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

1. Maintain the 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. Follow appropriate safe work procedures when handling or disturbing asbestos.
5. Sample any presumed ACM prior to alteration or maintenance work if presumed ACM may be disturbed by the work.
6. Update the asbestos inventory report upon completion of any abatement and removal of asbestos-containing materials.

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

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APPENDICES

1.0 INTRODUCTION AND SCOPE

Hamilton-Wentworth Catholic District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct an asbestos building materials assessment of St. Joachim located at 75 Concerto Crescent, Ancaster, ON, L9G 4V6.

Pinchin performed the assessment on July 12, 2023.

The objectives of the assessment were to document the locations of asbestos 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 asbestos building materials incorporated in the structure(s) and its finishes. The **assessed area** consisted of all parts of the building, excluding the roof.

2.0 METHODOLOGY

Pinchin conducted a room-by-room assessment (rooms, corridors, service areas, exterior, etc.) to identify the asbestos-containing building materials as defined in the scope.

The assessment was limited to non-intrusive testing. Concealed spaces such as those above solid ceilings and within shafts and pipe chases were 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 was not conducted.

For further details on the methodology including test methods, refer to Appendix III.

3.0 BACKGROUND INFORMATION

3.1 Building Year of Construction and Additions

Item	Details
Year of Construction	1990

3.2 Existing Reports

Pinchin previously prepared the following report, which has been reviewed as part of this assessment:

- Asbestos Reassessment Report, St. Joachim, August 2022, Pinchin File No. 303992.004.

3.3 Inaccessible Locations

Inaccessible locations (rooms or areas), if any, are indicated in the Location List Report in Appendix IV. These locations within the assessed area were not accessible to the surveyor and are therefore not included in the report.

4.0 FINDINGS

The following section summarizes the findings of the assessment and provides a general description of the asbestos-containing materials (ACM) identified and their locations. For details on approximate quantities, condition, friability, accessibility and locations of asbestos materials; refer to the Asbestos Material Summary Report and All Data Report in Appendix V and VI.

4.1 Excluded Asbestos Materials

A number of materials which might contain asbestos were not sampled during this assessment due to limitations in scope and methodology. Where present, these materials are assumed to contain asbestos until otherwise proven by sampling and analysis. These materials are not shown on the drawings in Appendix I. Excluded materials presumed to contain asbestos include:

- Roofing felts and tar, mastics
- Ceramic tile setting compound
- Electrical components
- Mechanical packing, ropes and gaskets
- Vermiculite
- Adhesives and duct mastics
- Caulking and putties
- Vibration dampers on HVAC equipment
- Terrazzo
- Ropes and gaskets in cast-iron bell and spigot joints
- Sealants on pipe threads

4.2 Summary of Building Materials

This section includes a summary of building materials that have been confirmed asbestos-containing by sample analysis, presumed asbestos-containing by visual identification, or confirmed non-asbestos by sampling or based on the manufacture date and known end of use of asbestos in these products.

The locations of samples from historical assessments performed by Pinchin, have been included on the drawings.

Appendix II presents the asbestos bulk sample analytical results.

Material and Application	Asbestos Type	Photo
Pipes are either uninsulated or insulated with non-asbestos fibreglass or elastomeric insulation (Armaflex).	None	
Ducts are either uninsulated or insulated with non-asbestos fibreglass (foil-faced or canvas).	None	
Mechanical equipment is either uninsulated or insulated with non-asbestos fibreglass.	None	
All ceiling tiles are presumed to be non-asbestos based on the age of the materials determined from the age of the building (1990).	None	
Asbestos in drywall joint compound was banned in Canada in 1980. The building was constructed after 1986 (1980 plus a reasonable non-compliance period based on our experience) and the drywall joint compound is assumed to contain no asbestos.	None	
Vinyl floor tiles, 12”x12”, pink with pink and white fleck, are present. Vinyl floor tiles, 12”x12”, pink oatmeal, are present. Vinyl floor tiles, 12”x12”, grey oatmeal, are present.	None (tile) None (mastic)	

Material and Application	Asbestos Type	Photo
Remaining vinyl floor tiles and mastic are presumed to contain asbestos until sampling proves otherwise.	Presumed (tile) Presumed (mastic)	
Gold sink undercoating is present.	Chrysotile	

5.0 RECOMMENDATIONS

5.1 General

Perform a detailed intrusive assessment prior to maintenance work, building renovation or demolition operations. The assessment should include destructive testing (e.g., coring and/or removal of building finishes and components), and other hazardous materials (lead, mercury, PCBs, mould, etc.) and materials not tested in this study (e.g., roofing materials, caulking, mastics).

5.2 Remedial Work

No remedial work is recommended.

5.3 On-going Management and Maintenance

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

Maintain the Asbestos Management Program (AMP).

Perform a reassessment 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.

Sample presumed ACM prior to alteration or maintenance work if the presumed ACM may be disturbed by the work.

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

6.0 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.

7.0 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. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.

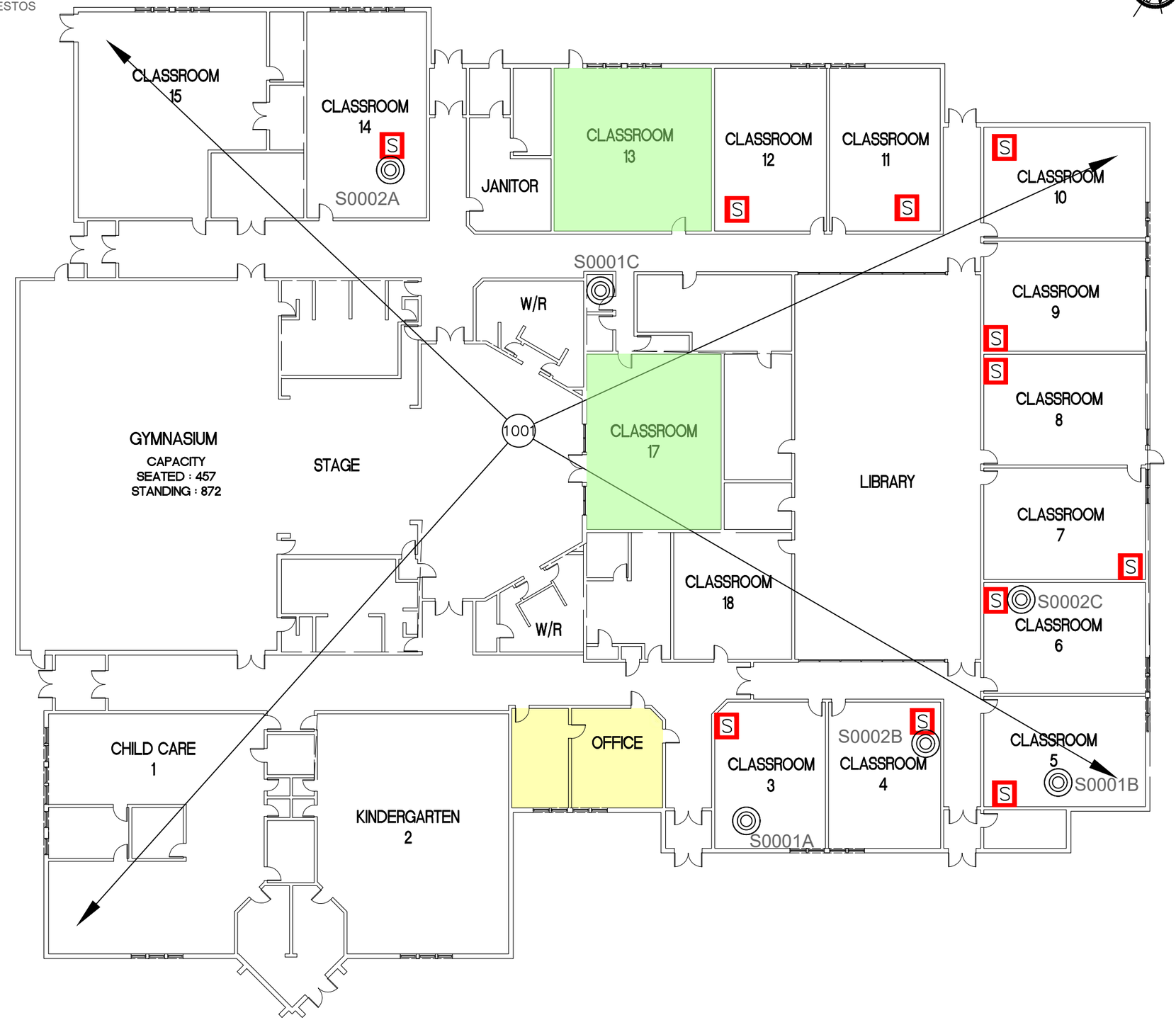
APPENDIX I

Drawings

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

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

BASE PLAN PROVIDED BY CLIENT.



PINCHIN

905-577-6206 www.pinchin.com

LEGEND:

- (X) LOCATION NUMBER
- ASBESTOS BULK SAMPLE

ASBESTOS-CONTAINING MATERIALS:

- S SINK UNDERCOATING
- VINYL FLOOR TILES & MASTIC
- MASTIC

CLIENT:

Hamilton-Wentworth Catholic District School Board
Believing, Achieving, Serving

LOCATION:

ST. JOACHIM
75 CONCERTO COURT
ANCASTER, ONTARIO

TITLE:

ASBESTOS ASSESSMENT
FLOOR LEVEL 1

DATE:	PROJECT # :
AUGUST 2023	320582.004
DRAWN BY: EB	DRAWING: 1 OF 1
CHECKED BY: EB	
SCALE: NTS	

APPENDIX II

Asbestos Analytical Certificates

Your Project #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Your C.O.C. #: na

Attention: Michael Maiorana

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/08/07
Report #: R5829059
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: B9K9706
Received: 2019/07/30, 08:57

Sample Matrix: Solid
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Asbestos by PLM - 0.5 RDL (1)	6	N/A	2019/08/02	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.
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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 #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Your C.O.C. #: na

Attention: Michael Maiorana

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/08/07
Report #: R5829059
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: B9K9706
Received: 2019/07/30, 08:57

Encryption Key

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
==========
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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BV Labs Job #: B9K9706
Report Date: 2019/08/07

Pinchin Ltd
Client Project #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Sampler Initials: MM

Asbestos Analytical Results

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

S0001A 12''X12'' VINYL FLOOR TILES, PINK WITH PINK AND WHITE FLECK, CLASSROOM 3

BV Labs ID: KJW735 Date Analyzed: 2019/08/01

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	98	Homogeneous pink vinyl floor tile	Not Detected		Non-Fibrous
Layer 2	2	Non-homogeneous black/yellow mastic	Not Detected		Tar Non-Fibrous

S0001B 12''X12'' VINYL FLOOR TILES, PINK OATMEAL, CLASSROOM 5

BV Labs ID: KJW736 Date Analyzed: 2019/08/01

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	98	Homogeneous pink vinyl floor tile	Not Detected		Non-Fibrous
Layer 2	2	Non-homogeneous black/yellow mastic	Not Detected		Tar 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 #: B9K9706
Report Date: 2019/08/07

Pinchin Ltd
Client Project #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Sampler Initials: MM

Asbestos Analytical Results

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

S0001C 12''X12'' VINYL FLOOR TILES, PINK OATMEAL, STAFF WASHROOM

BV Labs ID: KJW737 Date Analyzed: 2019/08/01

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	98	Homogeneous grey vinyl floor tile	Not Detected		Non-Fibrous
Layer 2	2	Homogeneous black mastic	Not Detected		Tar Non-Fibrous

S0002A GOLD SINK UNDERCOATING, CLASSROOM 14

BV Labs ID: KJW738 Date Analyzed: 2019/08/01

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1	100	Homogeneous black undercoating	**Chrysotile** 2%		Tar Non-Fibrous

S0002B GOLD SINK UNDERCOATING, CLASSROOM 4

BV Labs ID: KJW739 Date Analyzed: 2019/08/01

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1			N/A		
	Comment:	Not analyzed - positive stop			

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 #: B9K9706
Report Date: 2019/08/07

Pinchin Ltd
Client Project #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Sampler Initials: MM

Asbestos Analytical Results

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

S0002C GOLD SINK UNDERCOATING, CLASSROOM 6

BV Labs ID: KJW740 Date Analyzed: 2019/08/01

	P.O.B	Sample Morphology	Asbestos	Other Fibres	Particulate
Layer 1			N/A		

Comment: Not analyzed - positive stop

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 #: B9K9706
Report Date: 2019/08/07

Pinchin Ltd
Client Project #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Sampler Initials: MM

GENERAL COMMENTS

Revised Report (2019/08/07): St. Joachim Catholic Elementary School, 75 Concerto Court, Ancaster, Ontario included in the Site Location, as per client request .

Results relate only to the items tested.

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BV Labs Job #: B9K9706
Report Date: 2019/08/07

Pinchin Ltd
Client Project #: 230748
Site Location: ST.JOACHIM CATHOLIC ELEMENTARY SCHOOL, 75 CONCERTO COURT, ANCASTER, ONTARIO
Sampler Initials: MM

VALIDATION SIGNATURE PAGE

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

Banu Gurgen-Keough, Supervisor

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.
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30-Jul-19 08:57

Antonella Brasil

B9K9706

Client:	Pinchin Ltd. MAF ENV-1221	***Instructions:**	*Version 1-15-2012*
Contact:	Emily Balfour	*Use Column "B" for your contact info*	
	6-875 Main Street West, Suite 200,		
Address:	Hamilton ON L8S 4P9		
Phone:	905-577-6206	*To See an Example Click the bottom Example Tab.*	**Invoice to:**
Fax:	905-577-6207		ap@pinchin.com
Email:	'ebalfour@pinchin.com	***Enter samples between "<<" and ">>"***	
	mmaiorana@pinchin.com		
	230748,75 Concerto Court, Ancaster, Ontario,Hamilton-Wentworth Catholic School Board,St. Joachim Catholic		
Project:	Elementary School	***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"*	*Scientific Analytical Institute*
Client Notes:			
P.O. #.	230748	*Note: Data 1 and Data 2 are optional*	***4604 Dundas Dr.***
Date Submitted:	July 29,2019	*fields that do not show up on the official*	***Greensboro, NC 27407***
		report, however they will be included	***Phone: 336.292.3888***
Analysis:	PLM - Stop Positive EXCEPT S0001	*in the electronic data returned to you*	***Fax: 336.292.3313***
TurnAroundTime:	4days	*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\)
<<			
S0001A		12"x12" Vinyl Floor Tiles, Pink with Pink and White Fleck, Classroom 3	
S0001B		12"x12" Vinyl Floor Tiles, Pink Oatmeal, Classroom 5	
S0001C		12"x12" Vinyl Floor Tiles, Pink Oatmeal, Staff Washroom	
S0002A		Gold Sink Undercoating, Classroom 14	
S0002B		Gold Sink Undercoating, Classroom 4	
S0002C		Gold Sink Undercoating, Classroom 6	
>>			

19/07/30 08:57

APPENDIX III
Methodology

1.0 GENERAL

An inspection was conducted to identify the asbestos-containing materials (ACM) incorporated in the structure and its finishes as defined by the scope of work.

Information regarding the location and condition of ACM encountered and visually estimated quantities were recorded. The locations of any samples collected were recorded on small-scale plans. As-built drawings and previous reports were referenced where provided.

Sample collection (where performed) was conducted in accordance with our Standard Operating Procedures.

The inspection for asbestos included 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.

Where samples were collected, a separate set of samples was 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 were determined by visual examination and available information on the phases of construction and prior renovations.

Where samples were collected, samples were collected at a rate that is in compliance with the requirements of local regulations and guidelines. The sampling strategy was 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 were visually identified without sample confirmation.

Where samples were collected, the asbestos analysis was completed using a stop-positive approach. Only one result meeting the regulated criteria was 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 stopped 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 were analyzed if no asbestos is detected. In some cases, all samples were analyzed in the sample set regardless of result.

Where samples were collected, the analysis was performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

Where samples were collected, analytical results were compared to the following criteria.

Jurisdiction*	Friable	Non-Friable
Ontario	0.5%	0.5%

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. Additionally, these terms are used for materials which historically are known to not include asbestos in their manufacturing.

Asbestos materials were evaluated in order to make recommendations regarding remedial work. The priority for remedial action was based on several factors:

- Friability (friable or non-friable);
- Condition (good, fair, poor, debris);
- Accessibility (ranking from accessible to all building users to inaccessible);
- Visibility (whether the material is obscured by other building components).
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition).

For a complete description of the Evaluation Criteria and Basis of Recommendations, refer to Annex A.

METHODOLOGY ANNEX A EVALUATION CRITERIA

EVALUATION CRITERIA AND BASIS OF RECOMMENDATIONS

The detailed asbestos assessment provides information regarding the location, condition, accessibility and friability of the asbestos-containing materials (ACM). In order to make recommendations for compliance with current regulations, Pinchin developed the following criteria.

EVALUATION OF CONDITION

Friable Sprayed or Trowelled Fireproofing, Thermal Insulation and Texture Finishes (Surfacing Materials)

To evaluate the condition of ACM sprayed or trowelled on fireproofing, sprayed or trowelled thermal insulation (non-mechanical), or texture, decorative or acoustic finishes, the following criteria are applied:

Good	Surface of material shows no significant signs of damage, deterioration or delamination. Good condition includes unencapsulated or unpainted fireproofing or texture finishes, where no or limited delamination or damage is observed, or encapsulated fireproofing or texture finishes where the encapsulant or paint has been applied after the damage or fallout occurred.
Poor	A sprayed material that shows signs of significant damage or is significantly delaminating or deteriorating. This may be limited to surface delamination or some portion of the substrate may be exposed.

In Locations where damage exists in isolated areas, both good and poor condition may be applicable. The extent of each condition will be recorded. Fair condition is not utilized in the evaluation of ACM sprayed or trowelled fireproofing, sprayed or trowelled thermal insulation (non-mechanical), or texture, decorative or acoustic finishes.

The evaluation of the above products above ceilings may be limited by the number of observations and by building components such as ducts or full height walls that obstruct the above ceiling observations.

Friable Mechanical or Thermal System Insulation (TSI)

To evaluate the condition of mechanical insulation on vessels, boilers, breeching, ducts, pipes, fan units, equipment etc. the following criteria are applied:

Good	Insulation is completely covered in jacketing and exhibits no evidence of damage or deterioration. No insulation is exposed. Includes conditions where the jacketing has minor damage (i.e. scuffs or stains), but the jacketing is not penetrated.
Fair	Minor penetrating damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that has never been jacketed. Insulation is exposed but not showing surface disintegration. The extent of missing insulation ranges from minor to none. Damage can be repaired.

Poor	Original insulation jacket is missing, damaged, deteriorated or delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired. Includes components where insulation may have been removed incompletely.

The evaluation of mechanical insulation may be limited by the number of observations made and building components such as ducts or full height walls that obstruct observations. It is often not possible to observe each foot of mechanical insulation from all angles.

Potentially Friable Materials and Miscellaneous Friable Materials

Potentially friable ACM are products that are basically non-friable while in place but have the potential to generate friable dust upon removal or if significantly disturbed without appropriate procedures. These products may become friable if damaged. Potentially friable materials include materials such as acoustic ceiling tiles and plaster. To evaluate the condition of potentially friable materials, the following criteria are applied:

Good	No significant damage or deterioration. Still serving its intended use as a building material or finish.
Fair	Showing signs of some cracking or breakage, but is not deteriorating (e.g. cracked plaster, broken but in place ceiling tile, missing tile or section of plaster etc.). The condition is such that it is still serving its intended use as a building material or finish but may require repair for mainly cosmetic purposes.
Poor	Significant deterioration or breaking apart of the material. Material has deteriorated to the point it is not serving its intended use as building material or finish. Material has deteriorated to a point it has become friable. Normally potentially friable ACM in Poor condition is not repairable and requires at least localized removal and replacement.

Non-Friable Materials

Non-friable ACM cover a wide range of products with a wide variation in their tendency to release dust or asbestos fibres to the air. Many of these materials, (particularly where the matrix is an unweathered bitumen, asphalt or tar material) do not release fibres except in very unusual circumstances or during significant disturbance (e.g. use of abrasive power tools). Others with a cementitious matrix (asbestos-cement products) can more readily release dust due to abrasion, demolition, weathering, etc. The potential for asbestos release from non-friable ACM is always lower than from friable ACM. To evaluate the condition of non-friable Materials, the following criteria are applied:

Good	No significant damage or deterioration. Still serving its intended use as a building material or finish.

Fair	Showing signs of some cracking or breakage but is not deteriorating (e.g. cracked vinyl floor tile, missing piece of tile or transite, etc.). The condition is such that it is still serving its intended use as a building material or finish but may require repair for mainly cosmetic purposes.
Poor	Significant deterioration or breaking apart of the material to the point at which it cannot be repaired, and it will require at least local removal. Material has deteriorated to the point it is not serving its intended use as building material or finish. Material may have deteriorated to a point where traffic or disturbance may cause it to become friable.

Evaluation of ACM Debris

The identification of the exact location or presence of debris on the top of ceiling tiles is limited by the number of observations made and the presence of building components such as ducts or full height walls that obstruct observations.

The presence of fallen or dislodged ACM is noted separately from the ACM source and is referred to as Debris. Debris may be friable if from a friable ACM source or a badly deteriorated non-friable ACM source. Debris may also be non-friable (such as fallen pieces of transite sheet or mastic fittings, or broken, dislodged floor tiles).

Debris	Debris may be friable or non-friable but is always identified as debris.

Evaluation of Presumed Asbestos-Containing Material (PACM)

Presumed asbestos-containing materials (PACM), are building materials that may contain asbestos but were not sampled or analyzed due to inaccessibility or the need to perform destructive testing to obtain a reasonable sample set. Evaluation of these materials is based on the assumption that these PACM are asbestos-containing.

A list of PACM is provided in the report and they are generally not included in the detailed room by room reports. Typically, they are excluded because they are inaccessible or present in very small quantities. If PACM are evaluated, Pinchin uses the criteria that correspond with the type (and friability) of the material listed above.

EVALUATION OF ACCESSIBILITY

The accessibility of building materials known or suspected of being ACM is rated according to the following criteria:

Access (A)	Common areas of the building within reach of all building users (approximately 8 '-9' from floor or standard ceiling height). Includes other areas where occupant activities may result in disturbance of material that is not normally within reach from floor level, but may be disturbed by common activities (e.g. gymnasiums, workshops, warehouses)
Access (B)	Areas of the building accessed primarily by Maintenance/Caretaking/Janitorial Staff and within reach without use of a ladder. Includes areas within reach in Boiler Rooms, Electrical Rooms, Janitors Closets, Elevator Rooms, Mechanical Rooms, etc. Includes materials within reach from fixed ladders or catwalks, mezzanines, and accessible pipe chases.
Access (C) and Visible	Areas of the building above 8' - 9' where use of a ladder or scaffold is required to reach the ACM. Only includes ACM that are visible to view without the removal or opening of other building components such as ceiling tiles or service access panels. Visible column on HMIS sheets will say YES.
Access (C) and not Visible	Areas of the building above 8' - 9' where use of a ladder or scaffold is required to reach the ACM. Includes ACM that are not visible to view and require the removal of a building component to see, such as ceilings tiles or access panels to view and access. Includes rarely entered crawl spaces, attic spaces, etc. Observations will be limited to the extent visible from the access points. Visible column on HMIS sheets will say NO.
Access (D)	Areas of the building behind inaccessible solid ceiling systems, walls or equipment etc. where demolition of the ceiling, wall or equipment etc. is required to reach the ACM. Material inaccessible due to height or location or is only accessed under unusual situations. Evaluation of condition and extent of ACM is limited or impossible, depending on the surveyor's ability to visually examine materials in Access D.

ACTION MATRIX AND DEFINITIONS

Pinchin's evaluation of the viability of a specific asbestos control option is based on the consideration of the friability, condition, accessibility and visibility of a material. The logic used is that damaged ACM located in an area frequently accessed by all building occupants is of a higher priority than damaged ACM located in an infrequently accessed service area. The action matrix considers the potential for fibre release (primarily from friable ACM) and the possible concerns from regulatory bodies and many building occupants to all damaged ACM (including non-friable).

In any building with asbestos, many current regulations require an Asbestos Management Program be implemented. Depending on the condition and the accessibility, more active measures such as repair or removal may be recommended. The following matrix provides guidance for recommended Actions in the absence of renovation or demolition. In the event of construction or maintenance activity which will disturb ACM more aggressive control or removal will be required.

Action Matrix

The following tables outline the action decisions based on the relationship of assessed factors. Table I applies to friable ACM. Table II applies to non-friable ACM.

Table I Decision Matrix for Friable ACM

	Condition			
Access	**Good**	**Fair**	**Poor**	**Debris**
(A)	Action 5[1]	Action 5[2]	Action 3	Action 1
(B)	Action 7	Action 6[3]	Action 3	Action 1
(C) Visible	Action 7	Action 6	Action 3	Action 2
(C) Not Visible	Action 7	Action 7	Action 4	Action 2
(D)	Action 7	Action 7	Action 7	Action 7

Table II Decision Matrix for Potentially Friable and Non-Friable ACM

	Condition			
Access	**Good**	**Fair**	**Poor**	**Debris**
(A)	Action 7	Action 7[4]	Action 3	Action 1
(B)	Action 7	Action 7	Action 3	Action 1
(C) Visible	Action 7	Action 7	Action 4	Action 2
(C) Not Visible	Action 7	Action 7	Action 4	Action 2
(D)	Action 7	Action 7	Action 7	Action 7

Action Definitions

The following are the definitions in the Action Matrix Table presented above:

Action Definitions	
Action 1	Clean-Up of ACM Debris Restrict access that is likely to cause a disturbance of the ACM Debris and clean up ACM Debris. Utilize appropriate asbestos precautions.

[1] If friable ACM in access (A)/Good condition is not proactively removed Action 7 (Manage) is recommended.
[2] If friable ACM in access (A)/Fair condition is not proactively removed repair is recommended.
[3] If friable ACM in access (B)/Fair condition is likely to be disturbed after repair proactive removal is recommended.
[4] Action 7 is recommended for all non-friable ACM in Fair condition however some clients may wish to repair or take some action primarily for cosmetic reasons

Action Definitions	
Action 2	Precautions for Access Which may Disturb ACM Debris Use appropriate means to isolate the debris or to limit entry to the area which may disturb the material. At locations where ACM Debris can remain in place in lieu of removal or clean-up (e.g. Debris on top of ceiling tiles or behind lockable door), Utilize appropriate asbestos precautions to enter the area if this will disturb debris. The precautions will be required until the ACM Debris has been cleaned up.
Action 3	ACM Removal Remove ACM. Utilize asbestos procedures appropriate to the scope of the removal work. Until it is removed, restrict access to the material so it is not disturbed.
Action 4	Precautions for Work Which may Disturb ACM in Poor Condition. Utilize appropriate asbestos precautions if ACM may be disturbed by work on or near ACM. This does not require restricting access to the area, only control of work which may contact or disturb the ACM. Removal is the only viable option if work will disturb ACM.
Action 5	Proactive ACM Removal Remove friable ACM where the presence of friable asbestos in Good condition is not desirable. If friable ACM in Fair condition is not removed, then Repair friable ACM.
Action 6	ACM Repair Repair friable ACM in Fair condition which is not likely to be damaged again or disturbed by normal use of the area or room. Pinchin recommends proactive removal if friable ACM is likely to be damaged or disturbed during normal use of the area or room
Action 7	Asbestos Management Program with Routine Surveillance Implement an Asbestos Management Program, including routine surveillance of ACM. Reassess materials regularly (typically once per year).

APPENDIX IV

Location List

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

LOCATIONS LIST

PINCHIN
1.855.PINCHIN www.pinchin.com

Client:Hamilton-Wentworth Catholic District Sch
Site: 75 Concerto Court, Ancaster, ON
Building Name: St. Joachim
Survey Date: 2018-06-29
Last Re-Assessment: 2023-07-12
Building Phases: A: 1990

Location No.	Name or Description	Area ft²	Floor No.	Bldg. Phase	Notes
0	Presumed Asbestos-Containing Materials	0	0	A	Where present, these materials are assumed to contain asbestos until otherwise proven by sampling and analysis.
1001	Entire Building	0		A	

APPENDIX V

Summary Report / Sample Log

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

HAZARDOUS MATERIALS SUMMARY / SAMPLE LOG

PINCHIN
1.855.PINCHIN www.pinchin.com

Client:Hamilton-Wentworth Catholic District Sch **Site: 75 Concerto Court, Ancaster, ON** **Building Name: St. Joachim** **Survey Date: 2018-06-29**

HAZMAT	Sample No	System/Component/Material/Sample Description	Locations	Bldg. Phase	LF	SF	EA	%	Type	Positive	Friability
Asbestos	S0001 A	Floor | | Vinyl Floor Tile And Mastic |	1001	A	0	0	0	100	None Detected	No	
Asbestos	S0002 ABC	Other | Sink | Mastic, Gold | Undercoating	1001	A	0	0	14	0	Chrysotile	Yes	NF
Asbestos	V9500	Floor | | Mastic |	1001	A	0	0	0	100	Presumed Asbestos	Yes	NF
Asbestos	V9500	Floor | | Vinyl Floor Tile And Mastic | 12x12 Beige With Brown And White Streaks, 12x12 Grey W White And Dark Grey Streak	1001	A	0	0	0	100	Presumed Asbestos	Yes	NF
Asbestos	V9500	Other | | N/a | Roofing Tars And Mastics, Ceramic Tile Setting Compound, Elevator And Lift Brakes, Electrical Components, Mechanical Packing, Ropes, And Gaskets, Vermiculite, Adhesives And Duct Mastics, Caulking And Putties, Terrazzo, Sealants On Pipe Threads	0	A	0	0	0	100	Presumed Asbestos	Yes	NF
Asbestos	V0000	Ceiling | | Ceiling Tiles (lay-in) |	1001	A	0	0	0	75	Non Asbestos	No	
Asbestos	V0000	Ceiling | | Drywall And Joint Compound |	1001	A	0	0	0	25	Non Asbestos	No	
Asbestos	V0000	Duct | | Fibreglass |	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Floor | | Ceramic Tiles |	1001	A	0	0	0	25	Non Asbestos	No	
Asbestos	V0000	Floor | | Laminate |	1001	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Floor | | Vinyl Floor Tile And Mastic | 12x12 Grey Oatmeal (sample S0001c)	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Floor | | Vinyl Floor Tile And Mastic | 12x12 Pink Oatmeal (sample S0001b)	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Mechanical Equipment | All | Fibreglass |	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Other | Drain | Metal |	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Piping | All | Fibreglass |	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Piping | All | Not Insulated |	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Structure | All | Metal |	1001	A	0	0	0	100	Non Asbestos	No	
Asbestos	V0000	Wall | | Drywall And Joint Compound |	1001	A	0	0	0	25	Non Asbestos	No	
Asbestos	V0000	Wall | | Masonry |	1001	A	0	0	0	75	Non Asbestos	No	

Legend:

Sample number	
S####	Asbestos sample collected
L####	Paint sample collected
P####	PCB sample collected
M####	Mould sample collected
V####	Material visually similar to numbered sample collected
V0000	Known non Hazardous Material
V9000	Material is visually identified as Hazardous Material
V9500	Material is presumed to be Hazardous Material
[Loc. No.]	Abated Material

Units	
SF	Square feet
LF	Linear feet
EA	Each
%	Percentage

NF	Non Friable material.
F	Friable material
PF	Potentially Friable material

APPENDIX VI

HMIS All Data Report

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

ALL DATA REPORT

PINCHIN
1.855.PINCHIN www.pinchin.com

Client: Hamilton-Wentworth Catholic District Sch **Site: Elementary** **Building Name: St. Joachim**
Location: #0 : Presumed Asbestos-Containing Materials **Floor: 0** **Room #:** **Area (sqft): 0**
Survey Date: 2018-06-29 **Last Re-Assessment: 2023-07-12**

ASBESTOS																
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Other		N/A, Roofing tars and mastics, Ceramic tile setting compound, Elevator and lift brakes, Electrical components, Mechanical packing, ropes, and gaskets, Vermiculite, Adhesives and duct mastics, Caulking and putties, Terrazzo, Sealants on pipe threads			D	N		100(7)			%	V9500	Presumed Asbestos		Presumed Asbestos	NF

Where present, these materials are assumed to contain asbestos until otherwise proven by sampling and analysis.

Client: Hamilton-Wentworth Catholic District Sch **Site: Elementary** **Building Name: St. Joachim**
Location: #1001 : Entire Building **Floor:** **Room #:** **Area (sqft): 0**
Survey Date: 2018-06-29 **Last Re-Assessment: 2023-07-12**

ASBESTOS																
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Ceiling		Ceiling Tiles (lay-in)	ALL		C	Y		75			%	V0000	Non-Asbestos		None	
Ceiling		Drywall and joint compound	ALL		C	Y		25			%	V0000	Non-Asbestos		None	
Duct		Fibreglass	ALL		C	N		100			%	V0000	Non-Asbestos		None	
Floor		Vinyl Floor Tile and Mastic, 12x12 grey oatmeal (sample S0001C)			A	Y		100			%	V0000	Non-Asbestos		None	
Floor		Vinyl Floor Tile and Mastic, 12x12 pink with pink and white fleck			A	Y		100			%	S0001A	None Detected	N.D.	None	
Floor		Vinyl Floor Tile and Mastic, 12x12 pink oatmeal (sample S0001B)			A	Y		100			%	V0000	Non-Asbestos		None	
Floor		Vinyl Floor Tile and Mastic, 12x12 green oatmeal			A	Y		100			%	V9500	[None]		[Abated]	
Floor		Vinyl Floor Tile and Mastic, 12x12 beige with brown and white streaks			A	Y		100(7)			%	V9500	Presumed Asbestos		Presumed Asbestos	NF
Floor		Vinyl Floor Tile and Mastic, 12x12 grey w white and dark grey streak			A	Y		100(7)			%	V9500	Presumed Asbestos		Presumed Asbestos	NF
Floor		Ceramic Tiles	ALL		A	Y		25			%	V0000	Non-Asbestos		None	
Floor		Laminate			A	Y						V0000	Non-Asbestos		None	
Floor		Mastic		Laminate	D	N		100(7)			%	V9500	Presumed Asbestos		Presumed Asbestos	NF
Mechanical Equipment	All	Fibreglass	ALL		B	Y		100			%	V0000	Non-Asbestos		None	
Other	Drain	Metal	ALL		C	N		100			%	V0000	Non-Asbestos		None	
Other	Sink	Mastic, Gold, undercoating			A	N		14(7)			EA	S0002ABC	Chrysotile	0.5-5%	Confirmed Asbestos	NF
Piping	All	Fibreglass	ALL		C	N		100			%	V0000	Non-Asbestos		None	
Piping	All	Not Insulated	ALL		C	N		100			%	V0000	Non-Asbestos		None	
Structure	All	Metal			C	N		100			%	V0000	Non-Asbestos		None	
Wall		Drywall and joint compound	ALL		A	Y		25			%	V0000	Non-Asbestos		None	

ASBESTOS															
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Wall		Masonry	ALL		A	Y		75			%	V0000	Non-Asbestos		None	

Legend:

Sample number	
S####	Asbestos sample collected
V####	Material visually similar to numbered sample collected
V0000	Known non-asbestos material
V9000	Visually identified as an asbestos material
V9500	Material is presumed to be an asbestos material

Units	
SF	Square feet
LF	Linear feet
EA	Each
%	Percentage

Other	
A	Access
V	Visible
AP	Air Plenum
F	Friable material
NF	Non Friable material
PF	Potentially Friable material

Access	
A	Accessible to all building occupants
B	Accessible to maintenance and operations staff without a ladder
C	Accessible to maintenance and operations staff with a ladder. Also rarely entered, locked areas
D	Not normally accessible

Condition	
Good	No visible damage or deterioration
Fair	Minor, repairable damage, cracking, delamination or deterioration
Poor	Irreparable damage or deterioration with exposed and missing material

Visible	
Y	The material is visible when standing on the floor of the room, without the removal or opening of other building components (e.g. ceiling tiles or access panels).
N	The material is not visible to view when standing on the floor of the room and requires the removal of a building component (e.g. ceilings tiles or access panels) to view and access. Includes rarely entered crawlspaces, attic spaces, etc. Observations will be limited to the extent visible from the access points.

Air Plenum	
Yes or No	The material is in a return air plenum or in a direct airstream or there is evidence of air erosion (e.g. duct for heating or cooling blowing directly on or across an ACM). This field is only completed where Air Plenum consideration is required by regulation.

Colour Coding	
	The material is known to contain regulated concentrations of asbestos; either by analytical results or visible identification (use of the V9000 code).
	The material is presumed to contain asbestos; based on visual appearances; typically a material known to historically contain asbestos; however, not sampled due to limited access or the destructive nature of the sampling.

Action					
(1)	Clean up of ACM Debris	(2)	Precautions for Access Which may Disturb ACM Debris	(3)	ACM removal
(4)	Precautions for Work Which may Disturb ACM in Poor Condition	(5)	Proactive ACM removal (Minimum repair required for fair condition)	(6)	ACM repair
(7)	Management program and surveillance				