

PRE-RENOVATION HAZARDOUS MATERIALS ASSESSMENT

**Forensic Identification Unit (Building A)
Radio and Electronic Services (Building B)
2050 Jane Street
North York, Ontario**

Submitted to:

Sara Reid
Project Manager

City of Toronto
Facilities Management
Metro Hall, 2nd Floor
5100 Yonge Street
Toronto, Ontario
M5V 3C6

Presented by:

ECOH Management Inc.
75 Courtneypark Drive West, Unit 1
Mississauga, ON
L5W 0E3

ECOH Project No: 19598

July 18, 2018

1. INTRODUCTION

ECOH Management Inc. (ECOH) was retained by the City of Toronto to conduct an assessment for hazardous materials at the Forensic Identification Unit and Radio Electronic Services Buildings (Buildings A & B) located at 2050 Jane Street, in North York, Ontario. ECOH understands that the assessment was requested in preparation for the Fire Alarm equipment retrofit throughout select locations of Building A and throughout Building B.

Ms. Marlene Lopes Jongsma and Eve Nadeau of ECOH completed the assessment on July 12, 2018.

2. SCOPE

For the purposes of this assessment, hazardous materials are defined as Designated Substances (Asbestos, lead, mercury and silica), Polychlorinated Biphenyls (PCBs) and visible and accessible mould.

The scope of ECOH's assessment included locations affected by the renovation work, hereafter referred to as the "Assessed Area". The assessed area included select locations throughout Building A (Loc. 1-006, 1-063, 1-065, 1-066, 1-067, 1-068, 1-025, 1-026, 1-031 & 1-032) and all of Building B.

The assessment did not include demolition of finishes or access into operating electrical or mechanical equipment.

ECOH was unable to gain access to the following areas during the assessment; Building B: 1-006, 1-014, 1-027, 1-031, 1-032, 2-022, 2-023, 2-024, 2-025 and 2-028.

3. SURVEY METHODOLOGY

3.1 General Approach

To ensure familiarity with the building, and prior to commencing the survey, the surveyor made reference to previous reports, floor plans, and other available documentation. The surveyor looked for the most common applications of building materials made with Designated Substances based on historical applications. The investigation performed was non-intrusive in nature (i.e. did not include demolition of building systems to verify concealed conditions).

The following reports were reviewed and supplemented by additional sampling;

- *Designated Substances Survey Report*, issued January 12, 2018, (Pinchin File # 202779).

ECOH was instructed by the City of Toronto to rely on Pinchin's report.

3.2 Asbestos Survey Methodology

The building had been previously assessed for asbestos. Previous reports were relied upon and any materials not sampled in the previous asbestos assessment were sampled during this assessment. ECOH confirmed the location and condition of asbestos-containing materials within the assessed area.

3.2.1 Asbestos Sampling Strategy and Analytical Methods

Where sampling was required to identify additional possible asbestos-containing materials (ACM), bulk samples of possible ACM were collected for analysis as per the requirements of O. Reg. 278/05. One positive result is required to classify an ACM. Therefore, ECOH's sampling strategy involves the collection of sufficient numbers of samples to meet regulatory requirements, followed by instructions to the laboratory to cease analysis when one sample within a series has already proven positive for asbestos.

Sampling required a small volume of material to be removed either from a damaged section of suspect material or cut from intact material and then repaired by sealing with tape to prevent fibre release. The collected samples were placed in plastic bags and sealed during shipment. A formal chain of custody

procedure was maintained between ECOH and the sub-contract laboratory during sample transport. Asbestos bulk samples were analyzed by EMSL Laboratories Inc. (EMSL). Samples were then analyzed following the analytical procedure prescribed by the U.S. Environmental Protection Agency (EPA) Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June 1993. EMSL are accredited under the U.S. National Voluntary Laboratory Accreditation Program (NVLAP).

3.3 Lead Survey Methodology

Lead materials were determined by visual identification. Paint was sampled on a representative basis.

Bulk samples of potentially lead-containing paint were collected for analysis by flame atomic absorption spectroscopy. The collected samples were placed in plastic bags, sealed, and shipped to an independent laboratory. A formal chain of custody procedure is maintained between ECOH and EMSL during sample transport. EMSL are accredited under the U.S. EPA National Environmental Lead Laboratory Accreditation Program (NLLAP) and/or American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP) to ensure consistent, accurate and defensible results.

Lead concentrations exceeding 1,000 parts per million (ppm) (0.1%) are considered to indicate the material is "lead-containing" per City of Toronto policy and applicable guidelines.

3.4 Mould Survey Methodology

ECOH looked for instances of water damage and visible accessible mould. Demolition was not performed.

The assessment was conducted in accordance with the CCA Standard Construction Document CCA 82, 2004; "Mould Guidelines for the Canadian Construction Industry". Although there are no regulatory requirements or guidelines in Ontario for such an assessment, the preceding protocol has become accepted as the industry standard.

3.5 Silica and Mercury Survey Methodology

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

Building materials (e.g. thermostats, lamps, switches) known to contain mercury are identified by visually inspection only.

Dismantling of equipment suspected of containing mercury is not performed. Sampling of materials for laboratory analysis of is not performed.

3.6 PCB Methodology

PCBs in commercial facilities are presumed to be present in high concentrations in fluorescent or HID light ballasts, and electrical transformers and equipment.

Dismantling light fixtures to investigate the ballasts was not included within the scope of this assessment. Electrical transformer dielectric fluid is not sampled for safety reasons. Determination of PCB content relies on the comparison of information on labels and nameplates located on the exterior of the transformer with standard PCB Identifier Code literature. Transformers must be assumed to contain PCBs if the results of that comparison do not clearly and specifically indicate the transformer does not contain PCBs.

4. FINDINGS

1. Visual investigation and sampling revealed the following site conditions and asbestos-related information within the Assessed Area.

- Flooring throughout the Assessed Area is composed of concrete slab, vinyl floor tiles and vinyl sheet flooring.
 - o Vinyl floor tile (VFT2) described as 12" x 12" brown with white and beige smears is present in Building B: 1-002 Stairwell, 1-005 Corridor, 1-010 Office, 1-017 Office, 2-003 Lunch Room. This material was previously sampled (2014-A006A-C) and contains **chrysotile asbestos**. Mastic associated with this material does not contain asbestos.
 - o Vinyl floor tile (VFT3) described as 12" x 12" white vinyl floor tile with Black Streaks is present in Building B: Loc 1-012 Chiller Room. This material was previously sampled (2014-A008A-C) and contains **chrysotile asbestos**. Mastic associated with this material does not contain asbestos.
 - o Vinyl floor tile (VFT4) described as 12" x 12" mixed shades of beige is present in the following locations; Building B:

➤ 1-016 Stairwell	➤ 2-009 Office
➤ 1-018 Office	➤ 2-013 Repair Office
➤ 1-019 Front Desk	➤ 2-014 Office
➤ 1-021 Stairwell	➤ 2-015 Office
➤ 1-025 Lunch Room	➤ 2-016 Stairwell
➤ 1-031 Clothing Storage	➤ 2-017 Corridor
➤ 1-033 Clothing Storage	➤ 2-019 Clerks Office
➤ 1-038 Parts Counter	➤ 2-020 Lunch Room
➤ 1-040 Office	➤ 2-022 Admin Office
➤ 2-002 Corridor	➤ 2-026 Gym

This material was previously sampled (2014-A012A-C) and contains **chrysotile asbestos**. Mastic associated with this material does not contain asbestos.
 - o Vinyl floor tile (VFT5) described as 12" x 12" black vinyl floor tile with white streaks is present in Building B: Loc. 2-007 Copy Room. This material was previously sampled (2014-A010A-C) and contains **chrysotile asbestos**. Mastic associated with this material does not contain asbestos.
 - o Vinyl floor tile (VFT1), described as 12" x 12" mixed shades of beige is present in various locations throughout the Accessed Area. This material was previously sampled (2014-A001A-C) and does not contain asbestos. Mastic associated with this material does not contain asbestos.
 - o Vinyl floor tile (VFT6) described as 12" x 12" black marble vinyl floor tile is present in various locations throughout the Accessed Area. This material was previously sampled (2014-A007A-C) and does not contain asbestos. Mastic associated with this material does not contain asbestos.
 - o Vinyl floor tile (VFT7) described as 12" x 12" beige with blue spots is present in Building A Phone Room Loc. 1-067. Three samples were collected (19598-08-ASB-03A-C) and does not contain asbestos. Mastic associated with this material does not contain asbestos.

- o Vinyl sheet flooring (VSF2) described as mixed shades of blue is present in various locations throughout Building A. This material was previously sampled (2014-A003A-C) and does not contain asbestos.
 - o Vinyl sheet flooring (VSF5) described as 24" x 24" marble pattern is present in various locations throughout Building A. This material was previously sampled (2014-A011A-C) and does not contain asbestos.
 - o Vinyl sheet flooring and vinyl tile are non-friable asbestos-containing materials (ACM) and are in good condition.
- Walls are composed of concrete, masonry and drywall with joint compound within the Assessed Area.
 - o Seven samples of drywall joint compound from walls were collected from Building A (19598-08-ASB-01A-G) and does not contain asbestos.
 - o Seven samples of drywall joint compound from walls were collected from Building B (19598-08-ASB-06A-G) and does not contain asbestos.
- Ceilings are composed of lay-in acoustic ceiling tiles and drywall with joint compound within the Assessed Area.
 - o Acoustic ceiling tile (ACT-01) described as 24" x 48" random holes is present in various locations throughout the Assessed Area. This material was previously sampled (11087-B09-09-11) and does not contain asbestos.
 - o Acoustic ceiling tile (ACT-02) described as 24" x 48" random fissure and Hole is present in various locations throughout the Assessed Area. This material was previously sampled (11087-B10-01-03) and does not contain asbestos.
 - o Acoustic ceiling tile (ACT-03) described as 24" x 48" random dimple and holes is present in various locations throughout the Assessed Area. This material was previously sampled (ECOH 2009 01-03) and does not contain asbestos.
 - o Acoustic ceiling tile (ACT-04) described as 24" x 48" random pinhole pattern is present in various locations throughout the Assessed Area. This material was previously sampled (11087-B08-01-03) and does not contain asbestos.
 - o Acoustic ceiling tile (ACT-05) described as 24" x 24" random pinhole pattern. Three (3) samples of this material were collected (19598-08-ASB-04A-C) and does not contain asbestos.
 - o Three samples of drywall joint compound from ceilings were collected from Building A (19598-08-ASB-02A-C) and does not contain asbestos.
 - o Seven samples of drywall joint compound from ceilings were collected from Building B (19598-08-ASB-07A-G) and does not contain asbestos.
- Structural components (i.e. deck, beams and columns) throughout the Assessed Area are formed of concrete and structural steel. Steel observed in Building B is covered with sprayed fireproofing. This material was previously sampled (110870B09-01 -05). Two additional samples were collected (19598-09-ASB-05A,B) and the fireproofing does not contain asbestos.
- Transite drain pipe is present within the Assessed Area in the following location; Building B: 1-007 Service Floor, 1-018 Office, 1-019 Front Desk, 1-026 Shop and 1-030 Truck Wash Bay.

Transite was visually identified and is presumed to contain amphibole type asbestos. Transite pipe is non-friable and in good condition.

- Pipe fittings (elbows, valves, tees hangers) insulated with parging cement, presumed to contain **chrysotile asbestos**, are present in the following locations; Building B: Loc. 1-007 Service Floor (1 fitting) and Loc. 1-026 Shop (2 fittings). ECOH was unable to sample this material as it was inaccessible by ladder. Parging cement is a friable material, jacketed with canvas and is in good condition.
 - Mechanical systems located within the Assessed Area are either not insulated or are insulated with fibreglass insulation covered by canvas and lagging and/or PVC.
 - Roofing materials were not sampled during the assessment as these materials are not expected to be disturbed as a result of this renovation work.
2. Laboratory results for asbestos bulk samples collected during this assessment are summarized in Table 2 below. The laboratory analysis reports are included as Appendix I.

TABLE 2 Summary of Analysis of Asbestos Bulk Samples			
Sample Number	Sample Location	Sample Description	Asbestos Type
19598-08-ASB-01A	Finger Print Room (Loc: 1-025 - Building A)	Drywall Joint Compound - Wall	None
19598-08-ASB-01B	Document Section (Loc: 1-031 - Building A)	Drywall Joint Compound - Wall	None
19598-08-ASB-01C	Document Section (Loc: 1-031 - Building A)	Drywall Joint Compound - Wall	None
19598-08-ASB-01D	Office Area (Loc: 1-065 - Building A)	Drywall Joint Compound - Wall	None
19598-08-ASB-01E	Office Area (Loc: 1-065 - Building A)	Drywall Joint Compound - Wall	None
19598-08-ASB-01F	Phone Room (Loc: 1-067 - Building A)	Drywall Joint Compound - Wall	None
19598-08-ASB-01G	Phone Room (Loc: 1-067 - Building A)	Dry Wall Joint Compound - Ceiling	None
19598-08-ASB-02A	Entrance (Loc: 1-063- Building A)	Dry Wall Joint Compound - Ceiling	None
19598-08-ASB-02B	Entrance (Loc: 1-063- Building A)	Dry Wall Joint Compound - Ceiling	None
19598-08-ASB-02C	Entrance (Loc: 1-063- Building A)	Dry Wall Joint Compound - Ceiling	None
19598-08-ASB-03A	Phone Room (Loc: 1-067 - Building A)	Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	None
		Associated Mastic	None
19598-08-ASB-03B	Phone Room (Loc: 1-067 - Building A)	Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	None
		Associated Mastic	None

TABLE 2 Summary of Analysis of Asbestos Bulk Samples			
Sample Number	Sample Location	Sample Description	Asbestos Type
19598-08-ASB-03C	Phone Room (Loc: 1-067 - Building A)	Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	None
		Associated Mastic	None
19598-08-ASB-04A	Corridor (Loc: 1-006 - Building A)	Lay-In Ceiling Tile 05 (CT-05) 2"x2" Random Pinholes Pattern	None
19598-08-ASB-04B	Corridor (Loc: 1-006 - Building A)	Lay-In Ceiling Tile 05 (CT-05) 2"x2" Random Pinholes Pattern	None
19598-08-ASB-04C	Corridor (Loc: 1-006 - Building A)	Lay-In Ceiling Tile 05 (CT-05) 2"x2" Random Pinholes Pattern	None
19598-09-ASB-05A	Storage (Loc: 1-036 - Building B)	Sprayed Fireproofing	None
19598-09-ASB-05B	Storage (Loc: 1-036 - Building B)	Sprayed Fireproofing	None
19598-09-ASB-06A	Office (Loc: 1-008 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-06B	Office (Loc: 1-008 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-06C	Office (Loc: 1-018 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-06D	Women's Washroom (Loc: 1-022 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-06E	Stairwell (Loc: 1-041 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-06F	Training Room (Loc: 2-001 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-06G	Training Room (Loc: 2-001 - Building B)	Drywall Joint Compound - Wall	None
19598-09-ASB-07A	Janitor Room (Loc: 2-005 - Building B)	Dry Wall Joint Compound - Ceiling	None
19598-09-ASB-07B	Janitor Room (Loc: 2-005 - Building B)	Dry Wall Joint Compound - Ceiling	None
19598-09-ASB-07C	Washroom (Loc: 1-034 - Building B)	Dry Wall Joint Compound - Ceiling	None
19598-09-ASB-07D	Men's Washroom (Loc: 1-024 - Building B)	Dry Wall Joint Compound - Ceiling	None
19598-09-ASB-07E	Women's Washroom (Loc: 1-022 - Building B)	Dry Wall Joint Compound - Ceiling	None
19598-09-ASB-07F	Compressor Room (Loc: 1-029 - Building B)	Dry Wall Joint Compound - Ceiling	None

TABLE 2 Summary of Analysis of Asbestos Bulk Samples			
Sample Number	Sample Location	Sample Description	Asbestos Type
19598-09-ASB-07G	Washroom (Loc: 1-034 - Building B)	Dry Wall Joint Compound - Ceiling	None

3. Paint containing a lead concentration of 1000 parts per million ($\geq 0.1\%$) are considered lead-containing as per the current City of Toronto policy. Samples of suspected lead-containing paints were collected and submitted for laboratory analysis by Flame Atomic Absorption Spectroscopy (bulk samples). A result from samples exceeding 1000 ppm lead content indicates the paint is lead-containing. All laboratories used by ECOH are accredited under the U.S. EPA National Environmental Lead Laboratory Accreditation Program (NLLAP) and/or American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP) to ensure consistent, accurate and defensible results.

Analytical results are summarized in Table 3. The analytical certificate is provided in Appendix I.

TABLE 3 Summary of Analysis of Lead Samples				
Sample Number	Sample Location	Description	Analytical Results	Result
19598-Pb-01	Parts Storage (Loc: 1-039 – Building B)	Beige Paint on Duct	2500 ppm	Lead-containing

Laboratory analysis confirmed that the following paint present in the Project Area(s) is lead-based or lead-containing:

- Beige Paint on Duct. Approximately 5 square feet of flaking lead-containing beige paint on duct was observed in Part Storage Loc. 1-039 – Building B.

Red Paint was previously sampled from Sprinkler Room (Loc. 1-007) and determined to contain 70 ppm lead (sample 2015-L001) which is below the City of Toronto action limit of 1000 ppm.

4. Lead-containing products are present as follows:
- Lead is presumed to be present in wiring connectors and solder on electrical components.
 - Lead is presumed to be present in solder joints on piping or caulking in cast iron bell and spigot fittings.
 - Lead is presumed to be present in internal batteries associated with emergency lighting systems.
5. Free crystalline silica in the form of common construction sand is present in all concrete, mortar, stone and masonry products.
6. The following potential sources of Polychlorinated Biphenyls (PCBs) are present:
- Fluorescent light ballasts are present throughout the Assessed Area and 30% of ballasts presumed to contain polychlorinated biphenyls (PCBs) (based on expected rates of attrition).

- Electrical equipment (wet type transformers and capacitors) throughout the Assessed Area are presumed to contain PCBs.
7. Mercury is present in materials as follows:
 - Mercury vapour is assumed to be present within fluorescent lamps
 - Liquid mercury is present in thermostats.
 8. Other designated substances including, Arsenic, Acrylonitrile, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, and Vinyl Chloride Monomer were not used in processing or tenant purposes or forms which would be hazardous within the Assessed Area.
 9. Visible mould was not observed.

5. DISCUSSION AND RECOMMENDATIONS

The following recommendations meet requirements of the Occupational Health and Safety Act. Asbestos recommendations meet the requirements of Ontario Regulation 278/05: *Designated Substance – Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations*.

Based upon the findings of this assessment, ECOH offers the following recommendations for your consideration.

1. The following is recommended for removal or disturbance of Asbestos-Containing materials present in the Assessed Areas if required to complete the project scope of work:
 - Non-Friable Asbestos-Containing Vinyl Floor Tiles & Transite Pipe:
 - o Use Type 1 procedures for the disturbance or removal if the work is done by means of non-powered hand-tools and wet methods.
 - o Use Type 2 procedures for the disturbance or removal if the work is done by means of power tools that are attached to an effective dust collector attached to a HEPA filtered vacuum.
 - Friable Asbestos-Containing Parging Cement:
 - o Use glove bag procedures to remove parging cement.
2. If additional materials are uncovered additional testing for asbestos-content should be completed immediately and prior to disturbance of the material or the materials presumed to contain asbestos.
3. Work involving the disturbance of “lead-based” or “lead-containing” paints or surface coatings (i.e. lead concentrations > 0.1% by dry weight or 1000 ppm) as detailed below, or building materials assumed to contain lead (e.g. wiring connectors, ceramic tiles or electric cable sheathing), should be conducted following recommendations detailed within the Ministry of Labour document Guideline - Lead on Construction Projects, dated April 2011, and the Environmental Abatement Council of Ontario (EACO) Lead Guideline, dated October 2014.

Lead-containing paints were identified in the Project Areas as follows.

- Beige Paint on Duct Parts Storage (Loc: 1-039 – Building B).

Renovation, demolition or general construction work involving the removal of materials containing only trace concentrations of lead (i.e. lead concentrations below 0.1% by dry weight, or 1000 ppm) can be completed without lead specific safety precautions provided that:

- a) Work does not include 'fume generating activities' (heat producing) such as welding, torching, burning, high temperature cutting, etc.,
 - b) Work does not include dust-generating activities such as grinding, cutting or chemical stripping,
 - c) Dust levels are maintained below 0.5 mg/m^3 , and
 - d) General health and safety construction procedures are implemented, which would include dust suppression methods and proper worker hygiene.
4. Any work involving the disturbance of materials that may contain silica should be conducted following recommendations detailed in the Ministry of Labour document "*Guideline - Silica on Construction Projects*", dated April 2011.
 5. Recycle mercury containing lamps. Do not break lamps. Avoid inhalation of mercury vapour.
 6. If future renovation work requires the disposal of fluorescent light ballasts, ballasts should be disassembled to observe serial codes and then compared to standard PCB Identifier Code literature. Ballasts with unidentifiable serial codes, or from manufacturers who are not included in the standard PCB Identifier Code literature, or which are not clearly labelled as "PCB Free", or for which no date code is clearly visible (ballasts dated 1980 or later do not contain PCBs) must be assumed to contain PCBs. Ballasts confirmed or assumed to contain PCBs must be sent to a destruction facility and cannot be disposed of.
 7. Should work be required in areas of the building beyond those investigated during this assessment, additional site investigations should be completed to assess the presence of Designated Substances or Hazardous Materials.
 8. Disposal of hazardous materials should follow all relevant municipal, provincial and/or federal regulations.

Statement of Limitations

Details of the above investigation and recommendations are based upon the scope of work understood by ECOH Management Inc. (ECOH) at the time of inspection. Should changes occur to any aspect of the project scope of work, ECOH should be informed in order to determine if additional site investigations are required.

The observations, results and conclusions drawn by ECOH are limited to the specific scope of work for which ECOH was retained, and are based solely on information generated as a result of the specific scope of work authorized by The City of Toronto. Only those items that are capable of being observed, and are reasonably obvious to ECOH personnel or have been identified to ECOH by other parties, can be reported. ECOH has exercised a degree of thoroughness and competence that is consistent with the profession during the execution of this assessment. ECOH considers the opinions and information as they are presented in this report to be factual at the time of the assessment. The conclusions are limited to the specific locations of where testing and/or observations were completed during the course of the assessment.

Work was completed with the utmost care and our extensive expertise in carrying out assessments. ECOH believes that the information collected during the assessment concerning the Assessed Area is reliable. No other warranties are implied or expressed. ECOH, to the best of its knowledge, believes this report to be accurate, however, ECOH cannot guarantee the completeness or accuracy of information supplied to ECOH by third parties.

ECOH is an Environmental Consulting Company and as such any results or conclusions presented in this report should not be construed as legal advice. The material in this report reflects ECOH's professional interpretation of information available at the time of report preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. ECOH accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. Should additional information become available that suggests other environmental issues of concern, beyond those described in this report, ECOH retains the right to review this information and modify conclusions and recommendations presented in this report accordingly.

Should you have any questions, please do not hesitate to contact us at (905) 795-2800.

Sincerely,

ECOH

Environmental Consulting
Occupational Health

Prepared By:



Marlene Lopes Jongsma, B.A. (Env)
Senior Environmental Scientist

Reviewed By:



Jay Inman
Senior Consultant

APPENDIX I

LABORATORY CERTIFICATES OF ANALYSIS – ASBESTOS & LEAD



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3

Tel/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com> / torontolab@emsl.com

EMSL Canada Order: 551808181

Customer ID: 55ECOH45

Customer PO: 19598

Project ID:

Attention: Marlene L Jongsma
ECOH Management, Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, ON L5W 0E3

Project: 19598-2050 Jane Street - Pre-reno DSS

Phone: (905) 795-2800

Fax: (905) 795-2870

Received Date: 07/12/2018 5:50 PM

Analysis Date: 07/13/2018

Collected Date: 07/12/2018

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
19598-08-ASB-01A 551808181-0001	Finger Print Room (Loc : 1-025-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-01B 551808181-0002	Document Section (Loc : 1-031-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-01C 551808181-0003	Document Section (Loc : 1-031-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-01D 551808181-0004	Office Area (Loc : 1-065-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-01E 551808181-0005	Office Area (Loc : 1-065-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-01F 551808181-0006	Phone Room (Loc : 1-067-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-01G 551808181-0007	Phone Room (Loc : 1-067-Building A) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-02A 551808181-0008	Entrance (Loc : 1-063-Building A) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-02B 551808181-0009	Entrance (Loc : 1-063-Building A) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-02C 551808181-0010	Entrance (Loc : 1-063-Building A) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-03A-Flo or Tile 551808181-0011	Phone Room (Loc : 1-067-Building A) - Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-03A-Mas tic 551808181-0011A	Phone Room (Loc : 1-067-Building A) - Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 07/13/2018 12:43:36



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3

Tel/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com> / torontolab@emsl.com

EMSL Canada Order: 551808181

Customer ID: 55ECOH45

Customer PO: 19598

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
19598-08-ASB-03B-Floor Tile 551808181-0012	Phone Room (Loc : 1-067-Building A) - Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-03B-Mastic 551808181-0012A	Phone Room (Loc : 1-067-Building A) - Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-03C 551808181-0013 <i>insufficient mastic</i>	Phone Room (Loc : 1-067-Building A) - Vinyl Floor Tile 07 (VFT-07) 12"x12" Beige with Blue Spots	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-04A 551808181-0014	Corridor (Loc : 1-006-Building A) - Lay-in Ceiling Tile 05 (CT-05) 2"x2"Random Pinholes Pattern	Gray Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
19598-08-ASB-04B 551808181-0015	Corridor (Loc : 1-006-Building A) - Lay-in Ceiling Tile 05 (CT-05) 2"x2"Random Pinholes Pattern	Gray Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
19598-08-ASB-04C 551808181-0016	Corridor (Loc : 1-006-Building A) - Lay-in Ceiling Tile 05 (CT-05) 2"x2"Random Pinholes Pattern	Gray Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
19598-08-ASB-05A 551808181-0017	Storage (Loc : 1-036-Building B) - Sprayed Fireproofing	Gray Fibrous Homogeneous	85% Min. Wool	15% Non-fibrous (Other)	None Detected
19598-08-ASB-05B 551808181-0018	Storage (Loc : 1-036-Building B) - Sprayed Fireproofing	Gray Fibrous Homogeneous	85% Min. Wool	15% Non-fibrous (Other)	None Detected
19598-08-ASB-06A 551808181-0019	Office (Loc : 1-008-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-06B 551808181-0020	Office (Loc : 1-008-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-06C 551808181-0021	Office (Loc : 1-008-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-06D 551808181-0022	Women's Washroom (Loc : 1-022-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-06E 551808181-0023	Stairwell (Loc : 1-041-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 07/13/2018 12:43:36



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3

Tel/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com/torontolab@emsl.com>

EMSL Canada Order: 551808181

Customer ID: 55ECOH45

Customer PO: 19598

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
19598-08-ASB-06F 551808181-0024	Training Room (Loc : 2-001-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-06G 551808181-0025	Training Room (Loc : 2-001-Building B) - Drywall Joint Compound - Wall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07A 551808181-0026	Janitor Room (Loc : 2-005-Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07B 551808181-0027	Janitor Room (Loc : 2-005-Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07C 551808181-0028	Washroom (Loc : 1-034 -Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07D 551808181-0029	Men's Washroom (Loc : 1-024 -Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07E 551808181-0030	Women's Washroom (Loc : 1-022 -Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07F 551808181-0031	Compressor Room (Loc : 1-029 -Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19598-08-ASB-07G 551808181-0032	Washroom (Loc : 1-034 -Building B) - Drywall Joint Compound - Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Anne Balayboa (8)

Michelle Lung (26)

Matthew Davis or other approved signatory
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 07/13/2018 12:43:36

**EMSL Canada Inc.**

2756 Slough Street, Mississauga, ON L4T 1G3

Phone/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com>torontolab@emsl.com

EMSL Canada Or 551808182

CustomerID: 55ECOH45

CustomerPO: 19598

ProjectID:

Attn: **Marlene L Jongsma**
ECOH Management, Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, ON L5W 0E3

Phone: (905) 795-2800
Fax: (905) 795-2870
Received: 07/13/18 9:00 AM
Collected: 7/12/2018

Project: **19598****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample Description</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
19598-09-Pb-01	7/12/2018	7/13/2018	0.2207 g	91 ppm	2500 ppm
551808182-0001	Site: Parts Storage (Loc: 1-039 - Building B)				

Rowena Fanto, Lead Supervisor
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 07/13/2018 14:09:59

APPENDIX II

PROJECT DRAWINGS



Legend

01

Location Numbers

01a

Asbestos Bulk Sample Location
(19598-ASB-xx)

Pb01

Lead Bulk Sample Location
(19598-Pb-xx)

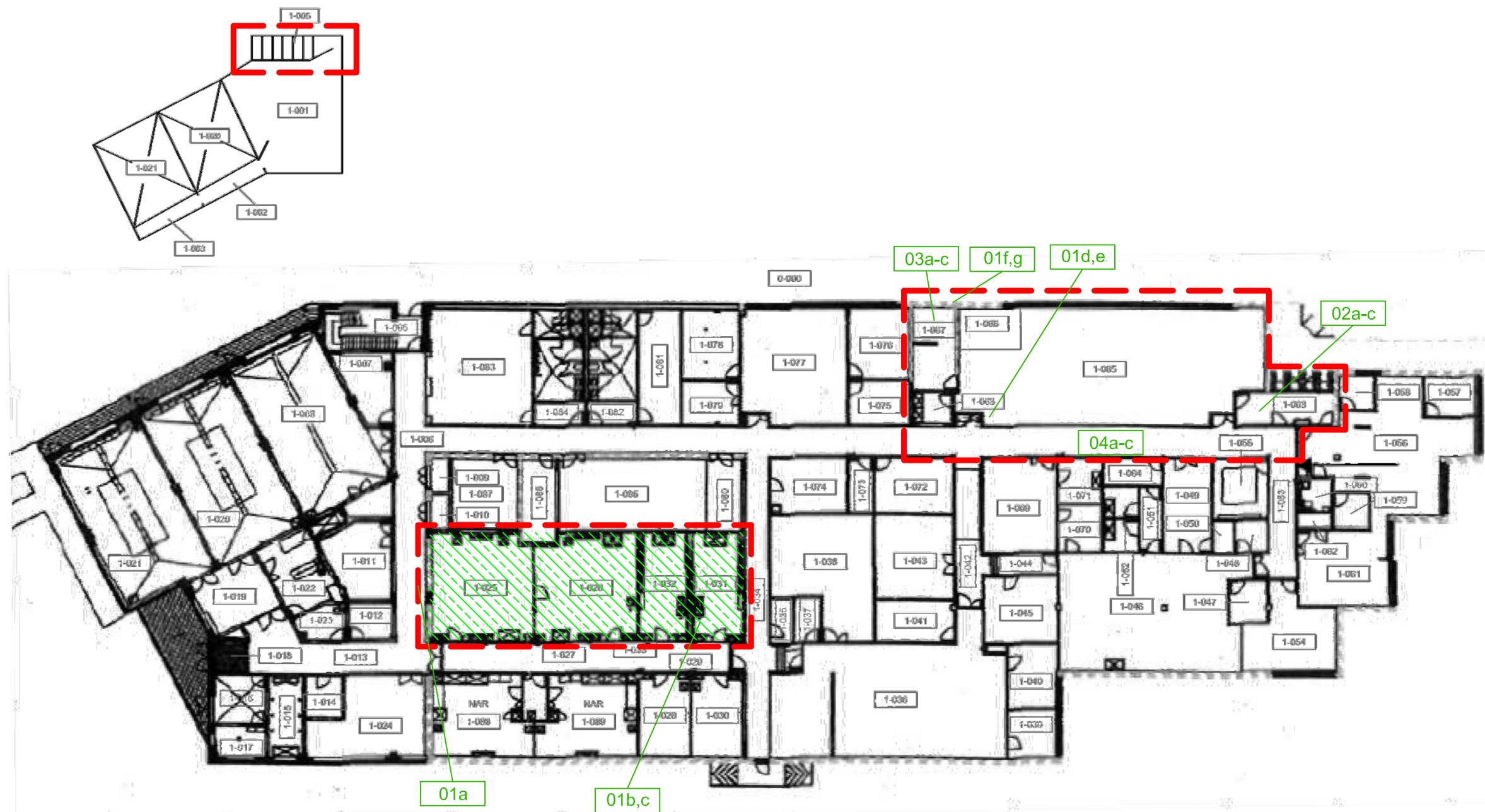
Project Area



Confirmed and/or Assumed
Asbestos-containing Material

NAR

No Access to Room



All information relating to room size and location is approximate and for visual aid only. ECOH does not guarantee the drawing to be complete, absolute, accurate or current. The drawing should not be used by any party in lieu of obtaining architectural drawings.

Figure 1

Building A Ground Floor

LOCATION:

2050 Jane Street,
Toronto, ON

PROJECT:

Pre-Renovation Designated Substance Survey

CLIENT:

City of Toronto

PROJECT NUMBER:

19598

DATE:	July 2018
-------	-----------

DRW BY:	CAB
---------	-----

CAD FILE:

FIGs P19598 DSS Jane Street

SCALE:

LE: Null Output

CHK BY: 

ECOH
Environmental Consulting
Occupational Health



Legend

- 01** Location Numbers
- 01a** Asbestos Bulk Sample Location (19598-ASB-xx)
- Pb01** Lead Bulk Sample Location (19598-08-Pb-xx)
- Project Area
- ▨** Confirmed and/or Assumed Asbestos-containing Material
- NAR** No Access to Room

All information relating to room size and location is approximate and for visual aid only. ECOH does not guarantee the drawing to be complete, absolute, accurate or current. The drawing should not be used by any party in lieu of obtaining architectural drawings.

Figure 2

Building B Ground Floor

LOCATION:

2050 Jane Street,
Toronto, ON

PROJECT:

Pre-Renovation Designated Substance Survey

CLIENT: City of Toronto

PROJECT NUMBER: 19598 DATE: July 2018 DRW BY: CAB

CAD FILE: FIGs P19598 DSS Jane Street SCALE: Not to Scale CHK BY: ML





Legend

- 01 Location Numbers
- 01a Asbestos Bulk Sample Location (19598-ASB-xx)
- Pb01 Lead Bulk Sample Location (19598-08-Pb-xx)
- Project Area
- Confirmed and/or Assumed Asbestos-containing Material
- NAR No Access to Room

All information relating to room size and location is approximate and for visual aid only. ECOH does not guarantee the drawing to be complete, absolute, accurate or current. The drawing should not be used by any party in lieu of obtaining architectural drawings.

Figure 3

Building B Second Floor

LOCATION:
2050 Jane Street,
Toronto, ON

PROJECT:
Pre-Renovation Designated Substance Survey

CLIENT: City of Toronto

PROJECT NUMBER: 19598 **DATE:** July 2018 **DRW BY:** CAB

CAD FILE: FIGs P19598 DSS Jane Street **SCALE:** Not to Scale **CHK BY:** ML

