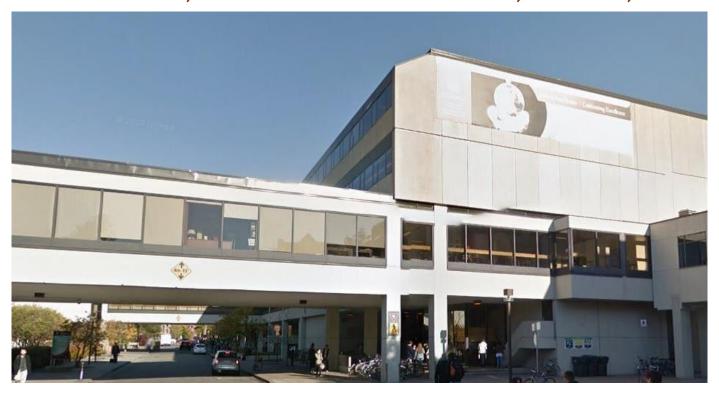
HAZARDOUS MATERIALS SURVEY AND 2023 REASSESSMENT FAUTEUX HALL, 57 LOUIS-PASTEUR PRIVATE, OTTAWA, ON



Project No.: Z1920014HZ / CCC-230252-00

Prepared for:

University of Ottawa

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Date:

February 6, 2024

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REASSESSMENT SURVEY 2023

McIntosh Perry Limited **(MPL)** was retained by the University of Ottawa, to complete to a hazardous materials survey of Marchand Residence located at 57 Louis-Pasteur Private. The survey was conducted on October 16th to 18th 2019. The reassessment was completed on February 02nd, 2024.

The purpose of the reassessment was to evaluate the condition and quantity of previously reported asbestos-containing materials (ACM) and develop corrective action plans as required for the purposes of long-term management.

The assessment and reassessment determined the following findings and recommendations.

Summary of the Reassessment Findings:

- ACM Plaster was observed to be in Good Condition throughout the subject building.
- ACM Vinyl Floor Tiles was observed to be in Good Condition throughout the subject building.
- ACM Suspended Ceiling Tiles were observed to be in Good throughout the subject building.
- ACM Parging Cement Mechanical Pipe Insulation was observed to be in Good Condition in Room 140 and 600.
- Water/Mould damaged materials were observed in rooms 100C, 102, 146, 387, 513, 528,545, 562, and 600.

Summary of Recommendations:

- Perform a reassessment of asbestos materials on an annual basis.
- Perform a pre-construction assessment and remove all asbestos-containing materials (ACM) prior to alterations or maintenance work if ACM may be disturbed by the work.
- Follow appropriate safe work procedures when handling or disturbing asbestos.
- Sample any presumed ACM prior to alteration or maintained work if presumed ACM may be disturbed by the work.

EXECUTIVE SUMMARY

McIntosh Perry Limited (MPL) was retained by the University of Ottawa, to complete to complete a hazardous materials survey for Fauteux Hall located at 57 Louis-Pasteur Private in Ottawa, ON. The survey was conducted between October 16th to 18th 2019. **The Reassessment Survey was completed on February 02nd, 2024.**

The purpose of the survey was to determine the presence of building materials containing Designated Substances and other hazardous materials, as defined under the Ontario Occupational Health and Safety Act. Designated Substances are eleven chemical agents prescribed under Ontario Regulation 490/09. In addition, a visual assessment was conducted for the presence of polychlorinated biphenyls (PCBs), radioactive materials, ozone depleting substances (ODSs), other halocarbons and mould.

Based on the assessment conducted by MPL, the following ACMs were identified or suspected to be present in the building:

| Material Description | Friable? | Location | Type of Asbestos |
|----------------------------|----------|---------------------|------------------|
| Ceiling Tiles | - | Throughout Building | Chrysotile |
| Vinyl Floor Tiles | No | Throughout Building | Chrysotile |
| Mechanical Pipe Insulation | Yes | Specific Areas Only | Chrysotile |
| Plaster | Yes | Throughout Building | Chrysotile |
| Fire Doors | - | Throughout Building | Suspected |

Table A: Summary of Asbestos-Containing Materials Identified

Note: Please refer to the complete report for specific details and recommendations.

All repairs or removal of asbestos-containing materials must be conducted according to Ontario Regulation 278/05, Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations - made under the Occupational Health and Safety Act. Asbestos containing waste must also be handled and disposed of according to Ontario Regulation 347/90 as amended – made under the Environmental Protection Act. Any suspect building materials encountered that were not assessed as part of this survey, should be assumed to contain asbestos until proven otherwise by analytical testing;

Sub-trades working with or in close proximity to asbestos-containing material should be informed of its presence;

Given that asbestos containing materials (ACMs) have been identified and will likely remain in place, an Asbestos Management Plan (AMP) is therefore required and an inventory of ACMs must be kept on site. All ACMs must be routinely inspected to ensure no damage has occurred, and the inventory must be updated once in each 12-month period and as may be required based on expected changing site conditions, abatement and/or renovation activities.

Based on the assessment conducted by MPL, the following Designated Substances and Hazardous Materials were identified or suspected to be present in the building:

Table B: Summary of Designated Substances & Hazardous Materials Identified

| Material Description | Location | |
|---------------------------|---------------------|--|
| Lead Paint | Throughout Building | |
| Lead Acid Batteries | Specific Areas Only | |
| Mercury Liquid | Specific Areas Only | |
| Ozone Depleted Substances | Specific Areas Only | |
| Silica | Throughout Building | |
| Mercury Vapour | Throughout Building | |
| Mould/ Water Damage | Specific Areas Only | |

Note: Please refer to the complete report for specific details and recommendations.

Designated Substances area regulated under Ontario Regulation 490/09 — Designated Substances, made under the Ontario Health and Safety Act, which applies to controlling designated substances in the workplace.

In addition to Ontario Regulation 490/09, the following guidelines must also be adhered to when conducting work activities that that involve disturbance of the above-mentioned materials:

- Guideline: Lead on Construction Projects, issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour
- Guideline: Silica on Construction Projects issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.
- Environmental Abatement Council of Canada (EACC) Mould Abatement Guidelines.

Prior to any renovations or demolition activities within building, designated substances and hazardous materials must be decommissioned by a licensed contractor such that they are contained and not released to the environment during decommissioning as per O. Reg. 347/09- made under the Environmental Protection Act.

Any suspect building materials encountered that were not assessed as part of this survey, should be assumed to contain designated substances or hazardous materials until proven otherwise by analytical testing.

This report should be made available to contractors tendering on any renovation or demolition work. In turn, all contractors requesting tenders from subcontractors shall furnish this report to subcontractors.

This executive summary is not to be used alone. This report should be reviewed in its entirety.

McINTOSH PERRY iii

McINTOSH PERRY

February 02nd, 2024

University of Ottawa

141 Louis-Pasteur Private Ottawa, Ontario K1N 1E3

Attention: Martine Bergeron, Senior Specialist, Occupational Health and Safety

Re: Fauteux Hall, University of Ottawa - 57 Louis-Pasteur Private

Hazardous Materials Survey and 2023 Reassessment

McIntosh Perry Limited Reference No. Z1920014HZ / CCC-230252-00

1.0 INTRODUCTION

In accordance with your instructions, McIntosh Perry Limited (MPL) carried out a Hazardous Materials Survey at Fauteux Hall, the institutional building located at 57 Louis-Pasteur Private in Ottawa, ON. The site is situated on the northeast corner of the intersection of Copernicus Street and Thomas More Private. The survey of the building was conducted October 16th to 18th 2019. **The Reassessment Survey was completed on February 02nd, 2024.**

via email: martine.bergeron@uottawa.ca

The purpose of the survey was to determine the presence of building materials containing Designated Substances and other hazardous materials, as defined under the Ontario Occupational Health and Safety Act. Designated Substances are eleven chemical agents prescribed under Ontario Regulation 490/09. In addition, a visual assessment was conducted for the presence of polychlorinated biphenyls (PCBs), radioactive materials, ozone depleting substances (ODSs), other halocarbons and mould.

MPL completed the following,

- Visual review of the building to identify materials which could contain Designated Substances and hazardous materials;
- Review of previously completed Hazardous Materials Survey(s) and historical building record(s); and,
- Recommendations for appropriate action where required.

2.0 PROPERTY DESCRIPTION

The subject building is a six-storey institutional building, covering approximately 150,900 square feet and constructed circa 1973. The subject building was observed to be constructed with a concrete slab floor, exterior walls, and roof deck. The interior walls were gypsum wallboard and concrete block with plaster. Ceilings were observed to be either concrete, suspended ceiling tiles or plaster. The floors generally consisted of terrazzo, vinyl floor tiles, laminate wood, ceramic tiles, and carpet.

3.0 FINDINGS & RECOMMENDATIONS

Designated Substances

3.1 Asbestos

Findings

A total of ninety-nine (99) bulk samples were previously collected during the survey and sent to an accredited laboratory for analysis. A summary of potential asbestos-containing samples collected along with the sample location, type and friability are presented in Table 1.

Laboratory certificates of analysis for asbestos are included in Appendix C.

<u>Table 1:</u>
Asbestos Laboratory Results

| Sample ID | Location | Material | Type and Content | Friability |
|--------------|------------|---|---------------------|------------|
| BS 1.1 | Room 115 | Carpet Mastic (Yellow) | None Detected | N/A |
| BS 1.2 | Room 115 | Carpet Mastic (Yellow) | None Detected | N/A |
| BS 1.3 | Room 115 | Carpet Mastic (Yellow) | None Detected | N/A |
| BS 2.1 | Poom 106 | VFT (12"x12" - Red Camouflage) | None Detected | N/A |
| D3 2.1 | Room 106 | Mastic (Yellow) | None Detected | IN/ A |
| BS 2.2 | Room 106 | VFT (12"x12" - Red Camouflage) | None Detected | N/A |
| D3 2.2 | | Mastic (Yellow) | None Detected | IN/A |
| BS 2.3 | Room 106 | VFT (12"x12" - Red Camouflage) | None Detected | N/A |
| D3 2.3 | | Mastic (Yellow) | None Detected | IN/ A |
| BS 3.1 | Room 106 | VFT (12"x12" - Beige w/ Red and Green Flakes) | None Detected | N/A |
| D3 3.1 | 1 K00m 106 | Mastic (Black) | None Detected | IN/A |
| BS 3.2 | Room 106 | VFT (12"x12" - Beige w/ Red and Green Flakes) | None Detected | N/A |
| D3 3.2 | | Mastic (Black) | None Detected | IN/A |
| BS 3.3 | Room 106 | VFT (12"x12" - Beige w/ Red and Green Flakes) | None Detected | NI/A |
| 3.3 دو | KOOIII 100 | Mastic (Black) | None Detected | N/A |

| Sample ID | Location | Material | Type and Content | Friability |
|-------------------|--------------|--|-----------------------------------|-------------|
| DC // 1 | Poom 106 | VFT (12"x12" - Green Camouflage) | None Detected | N/A |
| BS 4.1 Room 106 | | Mastic (Yellow) | None Detected | IN/A |
| BS 4.2 | Room 106 | VFT (12"x12" - Green Camouflage) | None Detected | N/A |
| D3 4.2 | NOOIII 100 | Mastic (Yellow) | None Detected | IN/ A |
| BS 4.3 | Room 106 | VFT (12"x12" - Green Camouflage) | None Detected | N/A |
| D3 4.3 | NOOIII 100 | Mastic (Yellow) | None Detected | IN/ A |
| BS 5.1 | Room 240 | VFT (12"x12" - Beige w/ Brown and White Lines) | 8% Chrysotile | Non-Friable |
| D3 3.1 | Nooiii 240 | Mastic (Brown) | * <mdl< td=""><td>N/A</td></mdl<> | N/A |
| | Room 240 | VFT (12"x12" - Beige w/ Brown and White Lines) | Stop Positive | Non-Friable |
| BS 5.2 | ROUIII 240 | Mastic (Brown) | * <mdl< td=""><td>N/A</td></mdl<> | N/A |
| BS 5.3 | Room 240 | VFT (12"x12" - Beige w/ Brown and White Lines) | Stop Positive | Non-Friable |
| 03 3.3 | K00III 240 | Mastic (Brown) | * <mdl< td=""><td>N/A</td></mdl<> | N/A |
| BS 6.1 | Room 413 | VFT (12"x12" - White w/ Black Flakes) | None Detected | N/A |
| D3 0.1 | | Mastic (Black) | None Detected | N/A |
| BS 6.2 | Room 413 | VFT (12"x12" - White w/ Black Flakes) | None Detected | N/A |
| B3 0.2 | | Mastic (Black) | None Detected | N/A |
| Bs 6.3 | Room 413 | VFT (12"x12" - White w/ Black Flakes) | None Detected | N/A |
| DS 0.5 | | Mastic (Black) | None Detected | N/A |
| BS 7.1 | Room 400 | VSF 3X3 Blue | None Detected | N/A |
| D3 7.1 | | Mastic (Yellow) | None Detected | IN/ A |
| BS 7.2 | Room 400 | VSF 3X3 Blue | None Detected | N/A |
| 50 712 | | Mastic (Yellow) | None Detected | N/A |
| BS 7.3 | 7.3 Room 400 | VSF 3X3 Blue | None Detected | N/A |
| 55 7.5 | | Mastic (Yellow) | None Detected | N/A |
| BS 8.1 | Room 400 | VSF Grey/Orange/Brown | None Detected | N/A |
| BS 8.2 | Room 400 | VSF Grey/Orange/Brown | None Detected | N/A |
| BS 8.3 | Room 400 | VSF Grey/Orange/Brown | None Detected | N/A |
| BS 9.1 | Room 129 | Vinyl Baseboard Mastic (Yellow) | None Detected | N/A |
| BS 9.2 | Room 129 | Vinyl Baseboard Mastic (Yellow) | None Detected | N/A |
| BS 9.3 | Room 129 | Vinyl Baseboard Mastic (Yellow) | None Detected | N/A |

| Sample Location | | Material | Type and | Friability |
|-----------------|-----------|---|---------------|------------|
| ID | | | Content | |
| BS 10.1 | Room 240 | VFT (12"x12" - Pink w/ Multicolour Streaks) | None Detected | N/A |
| BS 10.2 | Room 240 | VFT (12"x12" - Pink w/ Multicolour Streaks) | None Detected | N/A |
| BS 10.3 | Room 240 | VFT (12"x12" - Pink w/ Multicolour Streaks) | None Detected | N/A |
| BS 11.1 | Room 219 | SCT (2'X4' - Pinholes Varying Size) | None Detected | N/A |
| BS 11.2 | Room 219 | SCT (2'X4' - Pinholes Varying Size) | None Detected | N/A |
| BS 11.3 | Room 219 | SCT (2'X4' - Pinholes Varying Size) | None Detected | N/A |
| BS 12.1 | Room 306 | SCT (2'X4' - Pinholes w/ Triangular Fissures) | None Detected | - |
| BS 12.2 | Room 306 | SCT (2'X4' - Pinholes w/ Triangular Fissures) | 1% Chrysotile | - |
| BS 12.3 | Room 306 | SCT (2'X4' - Pinholes w/ Triangular Fissures) | Stop Positive | - |
| BS 13.1 | Room 502 | SCT (2'X2' - Small Fissures) | None Detected | N/A |
| BS 13.2 | Room 502 | SCT (2'X2' - Small Fissures) | None Detected | N/A |
| BS 13.3 | Room 502 | SCT (2'X2' - Small Fissures) | None Detected | N/A |
| BS 14.1 | Room 408 | SCT (2'X4' - Pinholes) | None Detected | N/A |
| BS 14.2 | Room 408 | SCT (2'X4' - Pinholes) | None Detected | N/A |
| BS 14.3 | Room 408 | SCT (2'X4' - Pinholes) | None Detected | N/A |
| BS 16.1 | Room 419 | Carpet Mastic (Yellow) | None Detected | N/A |
| BS 16.2 | Room 419 | Carpet Mastic (Yellow) | None Detected | N/A |
| BS 16.3 | Room 419 | Carpet Mastic (Yellow) | None Detected | N/A |
| BS 17.1 | Room 519 | Wall Texture Coat | None Detected | N/A |
| BS 17.2 | Room 519 | Wall Texture Coat | None Detected | N/A |
| BS 17.3 | Room 519 | Wall Texture Coat | None Detected | N/A |
| BS 18.1 | Room 400 | Wallpaper (Beige/Yellow) | None Detected | N/A |
| BS 18.2 | Room 400 | Wallpaper (Beige/Yellow) | None Detected | N/A |
| BS 18.3 | Room 400 | Wallpaper (Beige/Yellow) | None Detected | N/A |
| DC 10 1 | Poom F22F | Ceiling Plaster (Grey) | None Detected | N/A |
| BS 19.1 | Room 523E | Ceiling Plaster (White) | None Detected | N/A |
| BS 19.2 | Room 523E | Ceiling Plaster (Grey) | None Detected | N/A |

| Sample ID | Location | Material | Type and Content | Friability |
|--------------|------------|--|---------------------|------------|
| BS 19.3 | Room 523E | Ceiling Plaster (Grey) | None Detected | N/A |
| BS 19.4 | Room 523E | Ceiling Plaster (Grey) | None Detected | N/A |
| BS 19.5 | Room 527 | Ceiling Plaster (Grey) | None Detected | N/A |
| 63 19.3 | KOOIII 327 | Ceiling Plaster (White) | None Detected | N/A |
| DC 10 C | Dec. 527 | Ceiling Plaster (Grey) | None Detected | N/A |
| BS 19.6 | Room 527 | Ceiling Plaster (White) | None Detected | N/A |
| BS 19.7 | Room 527 | Ceiling Plaster (Grey) | None Detected | N/A |
| BS 20.1 | Room 129 | Drywall Joint Compound Wall (White) | | N/A |
| BS 20.2 | Room 240 | Drywall Joint Compound Wall (White) | None Detected | N/A |
| BS 20.3 | Room 316 | Drywall Joint Compound Wall (White) | None Detected | N/A |
| BS 20.4 | Room 414 | Drywall Joint Compound Wall (White) | None Detected | N/A |
| BS 20.5 | Room 516 | Drywall Joint Compound Wall (White) | None Detected | N/A |
| BS 20.6 | Room 519 | Drywall Joint Compound Wall (White) | None Detected | |
| BS 20.7 | Room 527 | Drywall Joint Compound Wall (White) | None Detected | N/A |

N/A – Not Applicable

VFT - Vinyl Floor Tiles

Stop Positive – Material considered being asbestos-containing as per O. Reg. 278/05.

Please refer to Appendix E – Asbestos-Containing Materials Checklist for material conditions, approximate quantities (where applicable), and recommended actions.

The following building materials (if present) were investigated for asbestos content,

3.1.1 Fireproofing

No fireproofing was observed in the subject building.

3.1.2 Mechanical Pipe Insulation

3.1.2.1 Mechanical Pipe Straight Insulation

Mechanical pipe straight insulation was observed in Room 129, 138, 140, 141, 144, 202, 202A-1, 226, 230, 241, 348, 600, and 605. MPL previously made several incisions throughout to investigate its composition, and it was visually identified as fiberglass, and therefore not suspected of containing asbestos.

3.1.2.2 Mechanical Piping Elbows/Fittings Insulation

Previously identified parging cement mechanical pipe elbows/fittings were observed in Room 142, and 600. This material **contains 35% Chrysotile asbestos** and is considered to be friable. This material was observed to be in good condition.

Mechanical pipe elbows/fittings insulation was observed in Room 138, 142, 144, 241, 348 and 600. MPL previously made several incisions throughout to investigate its composition, and it was visually identified as fiberglass, and therefore not suspected of containing asbestos.

3.1.2.3 Mechanical Piping Hangers Insulation

Mechanical pipe hanger insulation was observed in Room 138, 140, 142, 142A, 147B, 202, 241, 408, 600 and 601. MPL previously made several incisions throughout to investigate its composition, and it was visually identified as fiberglass, and therefore not suspected of containing asbestos.

3.1.2.4 HVAC Duct Insulation

No HVAC duct insulation was not observed in the subject building.

3.1.2.5 Other Mechanical Insulation

No other mechanical insulation was observed in the subject building.

3.1.3 Flexible Duct Connector

No flexible duct connectors were observed in the subject building.

3.1.4 Heat Shield or Heat Shield Insulation

No potential heat shield or heat shield insulation was observed in the subject building.

3.1.5 Texture Finishes

Wall texture coating was observed and previously sampled in Room 519. The laboratory analytical results of wall texture coat samples collected indicate that this material does not contain asbestos.

3.1.6 Plaster

Wall plaster was observed throughout the subject building and previously sampled in Rooms 100K, 128, 129, 143, 147, and 154. The laboratory analytical results of the wall plaster samples previously collected in Room 100K indicated that this material **contains 2% Chrysotile asbestos**. This material was observed to have been encapsulated by drywall and is therefore still present underneath. Since plaster is a homogeneous material, all areas must be treated as asbestos-containing unless additional testing confirms otherwise. This material is considered to be friable and was observed in good condition.

Ceiling plaster was observed throughout the subject building and previously sampled from Rooms 523E and 527. The laboratory analytical results of the ceiling plaster samples previously collected indicated that this material does not contain asbestos.

Bulkhead plaster was observed and previously sampled in Room 570. The laboratory analytical results of the bulkhead plaster samples collected indicated that this material does not contain asbestos.

3.1.7 Drywall Joint Compound

Drywall joint compound was observed throughout the subject building and previously sampled from Rooms 129, 240, 316, 414, 516, 519, 527. The laboratory analytical results of the drywall joint compound samples collected indicated that this material does not contain asbestos.

3.1.8 Ceiling Tiles

Ceiling tiles were observed in various locations throughout the subject building.

- Suspended ceiling tiles (2'x4' Pinholes & Triangular Fissures) were observed and previously sampled in Room 306. The laboratory analytical results of samples previously collected from indicate that this material **contains 1% Chrysotile asbestos**. This material appears to be visually similar to the previously identified asbestos-containing ceiling tiles (White w/ Dots) which was observed in Rooms 109, 109A, 110, 100H, 111, 112, 116, 120, 122, 306, 307, 309, 323, 325, 327, 329, 331, 333, 334, 338, 407, 408, 409, 411, 414A, 414B, 414C, 422, 423, 424, 426, 431A, 432, 432A, and 523. This material was observed in good condition with the exception of select areas that were observed in good and fair condition.
- Suspended ceiling tiles (2'x4' Pinholes & Varying Size Fissures) were observed and previously sampled in Room 219. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x2' Small Fissures) were observed and previously sampled in Room 502. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' Pinholes) were observed and previously sampled in Room 408. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' Pinholes & Small Fissures) were observed in Room 235. The date stamp on the back of these tiles indicated that they were manufactured in 2012 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x4' Textured & Fire Rated) were observed in Room 202. The date stamp on the back of these tiles indicated that they were manufactured in 2006 and therefore, this material is not considered to contain asbestos.

- Suspended ceiling tiles (2'x4' Pinholes & Small Fissures) were observed in Room 129. The date stamp on the back of these tiles indicated that they were manufactured in 2013 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x4' Pinholes & Small Fissures) were observed in Room 136. The date stamp on the back of these tiles indicated that they were manufactured in 2005 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x4' Pinholes & Medium Fissures) were observed in Room 106A. The date stamp on the back of these tiles indicated that they were manufactured in 2005 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x2' Pinholes & Small Fissures) were observed in Room 316. The date stamp on the back of these tiles indicated that they were manufactured in 2000 and therefore, this material is not considered to contain asbestos.

3.1.9 Vinyl Floor Tiles

Several different types of vinyl floor tiles were observed and sampled within the building as follows:

- Vinyl floor tiles (12"x12" Beige w/ Brown and White Lines) were observed and previously sampled in Room 240. The laboratory analytical results of the vinyl floor tile samples previously collected in Room 240 indicate that this material contains 8% Chrysotile asbestos. The associated mastic (Brown) was found to contain an asbestos content and below the O.Reg. 278/05 limit of 0.5% and therefore, this material is considered as non-asbestos. This material appears to be visually similar to previously identified asbestos-containing vinyl floor tiles (12"x12" Brown w/ Brown Stripes) observed in Room 100L, 139, 224, 228, 236, 239, 240, 400, 407, 407C, 408, 409, 410, 411, 412, 419, 419B, 432, 514, 517, 518, and 523. This material contains 13% Chrysotile asbestos and is considered to be non-friable. This material was observed to be in good condition.
- Vinyl floor tiles (12"x12" Red Camouflage) were observed and previously sampled in Room 115. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Yellow) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" Beige w/ Red and Green Flakes) were observed and previously sampled in Room 106. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Black) was also determined not to contain asbestos.

- Vinyl floor tiles (12"x12" Green Camouflage) were observed and previously sampled in Room 106. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Yellow) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" White w/ Black Flakes) were observed and previously sampled in Room 413. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Black) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" Pink w/ Multicolor Streaks) were observed and previously sampled in Room 240. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos.

3.1.10 Vinyl Sheet Floor

Several different types of vinyl sheet flooring were observed and previously sampled within the subject building as follows:

- Vinyl sheet flooring (3"x3" Blue) was observed and previously sampled in Room 400. The laboratory
 analytical results of the vinyl sheet flooring samples collected indicate that this material does not
 contain asbestos. The associated mastic (Yellow) was also determined not to contain asbestos.
- Vinyl sheet flooring (Grey, Orange, and Brown) was observed and previously sampled in Room 400. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.

3.1.11 Ceramic Tile Grout

Ceramic Floor Tile Grout (Grey) was observed and previously sampled in Room 300F. The laboratory analytical results of the samples collected indicate that this material does not contain asbestos.

3.1.12 Transite (Asbestos Cement)

No transite (asbestos cement) materials were observed in the subject building.

3.1.13 Mastic

Several different types of mastics were observed and previously sampled within the subject building as follows:

- Carpet mastic (Yellow) was observed and previously sampled in Room 115. The laboratory analytical results of the mastic samples collected indicate that this material does not contain asbestos.
- Carpet mastic (Yellow) was observed and previously sampled in Room 419. The laboratory analytical results of the mastic samples collected indicate that this material does not contain asbestos.

• Vinyl baseboard mastic (Yellow) was observed and previously sampled in Room 129. The laboratory analytical results of the mastic samples collected indicate that this material does not contain asbestos.

3.1.14 Caulking

Several different types of caulking were observed and previously sampled within the subject building as follows:

- Duct Caulking (Grey) was observed and previously sampled in Room 570. The laboratory analytical results of the caulking samples collected indicate that this material does not contain asbestos.
- Duct Caulking (Green) was observed and previously sampled in Room 570. The laboratory analytical results of the caulking samples collected indicate that this material does not contain asbestos.

3.1.15 Wallpaper

Wallpaper (Beige/Yellow) was observed and previously sampled in Room 400. The laboratory analytical results of the wallpaper samples collected indicate that this material does not contain asbestos.

3.1.16 Cementitious Coating

No cementitious coating finishes were observed in the subject building.

3.1.17 Fire Doors

Fire doors were observed at various locations throughout the subject building. To avoid possible damage, no bulk samples of the internal door insulation materials were collected. Prior to removal and/or replacement, fire doors should be examined and tested for asbestos content. Fire doors should be considered to contain asbestos until bulk samples and analysis proves otherwise. All fire doors were observed to be in good condition.

3.1.18 Roofing Material

Roofing materials were previously sampled and determined not to contain asbestos. Caulking (Black) on parapet flashing was previously sampled at the roof level and determined not to contain asbestos.

Recommendations

- Asbestos-containing materials identified to be in poor condition must be repaired/removed immediately, following Type 1/2/3 asbestos abatement work procedures as detailed in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347;
- Asbestos-containing materials that have been identified to be in fair condition should be either repaired (where possible) and/or closely monitored for signs of further deterioration. Depending on type of material and location, these materials should be scheduled for removal if there is potential risk of exposure to worker and/or occupants;

- Materials identified to contain asbestos that are in good condition and do not pose a risk to workers or
 occupants can be managed in place. Prior to renovation/demolition activities that may disturb the
 ACMs, these materials must be removed following appropriate Type 1/2/3 asbestos abatement work
 procedures as detailed in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347;
- Entry into ceiling spaces where asbestos-containing ceiling tiles are present will require Type 1/2 asbestos abatement procedures.
- Please refer to Appendix E Asbestos-Containing Materials Checklist for material conditions, approximate quantities (where applicable), and recommended actions;
- Prior to renovation/demolition of materials which are assumed to be asbestos-containing (suspect
 materials which were not sampled, i.e., transite contact plates, heat shields, and fire doors), these
 materials must either be tested for asbestos content or removed following appropriate asbestos
 abatement work procedures (Type 1/2/3) as detailed in O. Reg. 278/05 and disposed of as asbestos
 waste under O. Reg. 347;
- All repairs or removal of asbestos-containing materials must be conducted according to Ontario Regulation 278/05, Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations - made under the Occupational Health and Safety Act. Asbestos containing waste must also be handled and disposed of according to Ontario Regulation 347/90 as amended – made under the Environmental Protection Act. Any suspect building materials encountered that were not assessed as part of this survey, should be assumed to contain asbestos until proven otherwise by analytical testing;
- Sub-trades working with or in close proximity to asbestos-containing material should be informed of its presence; and
- Given that asbestos containing materials (ACMs) have been identified and will likely remain in place, an Asbestos Management Plan (AMP) is therefore required and an inventory of ACMs must be kept on site. All ACMs must be routinely inspected to ensure no damage has occurred, and the inventory must be updated once in each 12-month period and as may be required based on expected changing site conditions, abatement and/or renovation activities.

3.2 Lead

Findings

3.2.1 Paint Finishes

A total of two (2) paint samples from the subject building were previously collected and analyzed for lead content. Results of bulk sampling testing are summarized in Table 2 and the laboratory certificate of analysis can be found in Appendix C

<u>Table 2:</u>
<u>Lead Sampling Locations and Laboratory Results</u>

| Sample I.D. | Location | Material | Colour | Lead Concentration Weight by Conc. (%) |
|---------------------|-----------------|-------------------|----------|--|
| Pb-1 | Room 600 | Floor Paint | Grey | 0.149 |
| Pb-2 | Room 100E | Door Paint | Grey | 0.0021 |
| | Previously Iden | tified Lead Paint | Finishes | |
| FTX-5-LBP-012307-02 | Room 510 | Wall Paint | White | 0.05 |
| FTX-5-LBP-012307-03 | Room 526 | Railing Paint | Brown | 0.63 |
| FTX-5-LBP-012307-04 | Room 537 | Ceiling Paint | White | 0.01 |
| FTX-5-LBP-012307-06 | Room 408 | Wall Paint | Beige | 0.17 |
| FTX-5-LBP-012307-08 | Room 384 | Wall Paint | White | 0.02 |
| FTX-5-LBP-012307-10 | Room 141 | Floor Paint | Grey | 0.15 |
| FTX-5-LBP-012307-11 | Room 133 | Wall Paint | White | 0.07 |

The paint finishes highlighted in blue in the above table were determined to contain low concentrations of lead which are less than or equal to 0.1%. These paint finishes were observed to be in good condition with the exception of select areas that were observed in poor condition.

The paint finishes highlighted in pink in the above table are considered lead-containing paints or surface coatings with concentrations greater than 0.1% lead by weight. These paint finishes were observed to be in good condition with the exception of select areas that were observed in poor condition.

All remaining paints tested were below the laboratory limit of detection for lead. However, all other paints throughout the subject building that are not mentioned in this report must be considered to be lead-containing unless sampling and analysis proves otherwise.

Laboratory certificate of analysis for the paint sample is also included in Appendix C.

3.2.2 Battery Packs

MPL identified one (1) lead-containing acid battery pack in Room 600 observed in good condition.

Lead may also be present in the following materials in the building:

- Solder used on copper domestic water lines;
- Solder used in bell fittings for cast iron pipes;
- Solder used in electrical equipment;
- Ceramic tile glaze; and
- Concrete and mortar products, etc.

Recommendations

Paints identified to contain lead that are in poor condition must be immediately repaired and/or stabilized following a minimum Type 1/2 lead abatement procedures as per OMOL "Lead on Construction Project" dated April 2011.

Paints identified to contain lead that are in fair condition should be either repaired (where possible) and/or closely monitored for signs of further deterioration.

Paints identified to contain lead that are in good condition and do not pose a risk to workers or occupants can be managed in place.

Detailed worker protection protocols are outlined in the OMOL Guideline "Lead on Construction Projects" dated April 2011. Generally, the removal of the lead-based paint with the use of a chemical gel or paste, or a power tool equipped with a HEPA filter is considered a Type 1 operation. The removal of lead-based paint by scraping or sanding using non-powered hand tools is considered a Type 2 operation. The removal of lead-based paint using abrasive blasting, or power tools without a HEPA filter, is considered a Type 3 operation, and requires the most stringent worker protection protocols (similar to asbestos); Furthermore, high temperature cutting or welding would also require Type 3 Operations under the Guideline for Lead on Construction Projects. If this type of work is required, it may be prudent to chemically remove the lead paint in selected locations prior to performing any high temperature cutting or welding.

All lead materials that are removed must follow the Ministry of Labour and Environmental Abatement Council of Ontario Lead Guidelines.

Please refer to Appendix F – Hazardous Materials Checklist for material conditions, approximate quantities (where applicable), and recommended actions.

Precautions should be taken as required during major renovations and demolition projects to ensure that workers' exposure levels to airborne lead does not exceed 0.05 mg/m3. This can be achieved by:

- o providing workers with proper training;
- o providing the workers with respiratory protection;
- wetting the surface of the materials to prevent dust emissions; and,
- o providing workers with hygiene facilities to properly wash prior to exiting the work area.

Sub-trades working with or in close proximity to lead based paint should be informed of its presence.

All waste material must be handled and disposed of according to the Revised Regulation of Ontario 347/90 as amended – made under the Environmental Protection Act. Lead waste generated may also be subject to Leachate Criteria (Schedule 4) of this regulation.

3.3 Mercury

Findings

3.3.1 Thermostat Switches

MPL observed one (1) thermostat within Room 600 containing one (1) ampoule of liquid mercury.

3.3.2 Fluorescent Light Tubes

MPL identified fluorescent light fixtures throughout the surveyed area containing 2 to 4 fluorescent light tubes per fixture. Mercury is likely to be present in vapor form in the fluorescent light tubes.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate quantities (where applicable), and recommended actions.

Precautions must be taken to prevent mercury liquid/vapours from becoming airborne during building demolition. Exposure to mercury is regulated under Ontario Regulation 490/09, Designated Substances - made under the Occupational Health and Safety Act." Prior to renovations to the building, all mercury containing fluorescent light tubes, thermostats, and equipment must be removed and stored in a safe, secure location and/or properly disposed of in accordance with R.R.O. 1990, Regulation 347 General – Waste Management, made under the Environmental Protection Act.

3.4 Silica

Findings

Silica is expected to be present in building materials such as concrete, brick, mortar and ceramic tiles located throughout the structures. Free crystalline silica (α -Quartz) may be a component in ceiling tiles and gypsum board. Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the building.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate quantities (where applicable), and recommended actions.

Precautions should be taken as required during major renovations and demolition projects on concrete (i.e. coring through concrete slabs, demolition of masonry, etc.) to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m³.

This can be achieved by:

- providing workers with proper training;
- providing the workers with respiratory protection;

- o wetting the surface of the materials to prevent dust emissions; and,
- o providing workers with facilities to properly wash prior to exiting the work area.

Demolition work that is likely to impact silica-containing materials should be carried out in accordance with the requirement detailed in the Ontario Ministry of Labour document entitled "Guideline: Silica on Construction Projects", dated April 2011.

Other Hazardous Materials

3.5 Polychlorinated Biphenyls (PCBs)

Findings

3.5.1 Light Ballasts

The subject building is illuminated by LED and fluorescent lights. MPL assessed representative ballasts in the building, and these ballasts were identified as non-PCBs content.

3.5.2 Transformers

MPL did not observe any PCBs containing electrical transformers within the subject building. Transformers that could be assessed were observed to be dry-type and manufactured by BEMAG, Westinghouse, and Commercal.

Recommendations

Since no PCB-containing equipment was observed or suspected to be present during the site survey, no further action is required.

3.6 Ozone Depleting Substances (ODSs) and Other Halocarbon

Findings

A visual assessment for equipment potentially containing ODSs and other halocarbons was conducted. MPL observed equipment such as refrigerators, water fountains, water coolers, freezers, etc. which contain or are suspected of containing ODSs or other halocarbons.

No other equipment containing ODSs or other halocarbons was observed in the subject building.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate quantities (where applicable), and recommended actions.

Under the management of a licensed contractor, equipment containing R-22 and R-134a does not represent a significant threat to human health or the environment however, a licensed contractor must decommission equipment such that CFCs are contained and not released to the environment during servicing or operation.

3.7 Radioactive Materials

Findings

MPL did not observe any electrical components containing radioactive materials in the subject building.

Recommendations

Since no radioactive materials were observed or suspected to be present during the site survey, no further action is required.

3.8 Underground and Above Ground Storage Tanks (USTs and ASTs)

Findings

A visual survey of the subject building was conducted to determine if any USTs and ASTs were present. MPL observed one (1) Diesel Storage Tank in Room 142A observed in good condition.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate quantities (where applicable), and recommended actions.

Prior to any demolition in the buildings within the facility, all USTs and ASTs equipment must be decommissioned by a licensed contractor such that substances are contained and not released to the environment during decommissioning.

3.9 Mould

Findings

3.9.1 Mould

A visual survey of the subject building was conducted to determine if any mould was present. MPL did not observed any areas with obvious signs of visible mould growth.

3.9.2 Water Damage

A visual survey of the subject building was conducted to determine if any water damaged was present. MPL identified select areas throughout the subject building, where materials were affected by water damage.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate quantities (where applicable), and recommended actions.

Water stained/damaged building materials observed throughout the subject building should be replaced/repaired as part of regular maintenance and the underlying cause of the water leakage should be identified and repaired;

Water stained/damaged ceiling tiles that are also determined to contain asbestos must be replaced following appropriate asbestos abatement procedures as outlined in O. Reg. 278/05.

This report should be made available to contractors tendering on any renovation or demolition work. In turn, all contractors requesting tenders from subcontractors shall furnish this report to subcontractors.

4.0 GENERAL CONSIDERATIONS AND LIMITATIONS

The information presented in this report is based on information provided by others, direct visual observation made by personnel with **McIntosh Perry Limited (MPL)**, and the results of laboratory testing as identified herein.

It should be noted that there might be hazardous materials in locations not visible during our investigation. In the event such material is encountered during demolition operations in the building, this material should be tested and dealt with accordingly.

The findings detailed in this report are based upon the information available at the time of preparation of the report. No investigative method eliminates the possibility of obtaining imprecise or incomplete information. Professional judgement was exercised in gathering and analyzing the information obtained and in the formulation of our conclusions and recommendations.

MPL does not certify or warrant the environmental status of the property nor the building on the property.

Please note that the passage of time affects the information provided in the report. Environmental conditions of a site can change. Opinions relating to the site conditions are based upon information that existed at the time that the conclusions were formulated.

The client expressly agrees that it has entered into this agreement with MPL, both on its own behalf and as agent on behalf of its employees and principals.

The client expressly agrees that MPL's employees and principals shall have no personal liability to the client in respect of a claim, whether in contract, tort and/or any other cause of action in law. Accordingly, the client expressly agrees that it will bring no proceedings and take no action in any court of law against any of MPL's employees or principals in their personal capacity.

We trust that we have detailed our findings clearly and that we have satisfactorily addressed the scope of work you require at this time. In the event you wish us to review our findings with you, or require our services further in this regard, please do not hesitate to contact our office.

Yours truly,

MCINTOSH PERRY LIMITED

Pegah Parichehreh, M.Sc.

Project Technician

Hazardous Materials/ Environmental Health & Safety

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APPENDIX A

Regulatory Requirements

REGULATORY REOUIREMENTS

In Ontario, there is a total of eleven Designated Substances. These substances have been regulated under Ontario Regulation 490/09 — *Designated Substances*, made under the Ontario Health and Safety Act, which applies to controlling designated substances in the workplace.

In addition to the Ontario Regulation 490/09 noted above, the following were observed for this survey:

<u>Guideline: Lead on Construction Projects</u>, issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour

<u>Guideline: Silica on Construction Projects</u> issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.

<u>The Occupational Health and Safety Act</u> (OHSA), R.S.O. 1990, c.O.1, s.30 (1) specifies that: "Before beginning a project, the owner shall determine whether any Designated Substances are present at the project site and shall prepare a list of all Designated Substances that are present at the site.

Section 30 of <u>The Act</u> requires that the list of Designated Substances be provided to prospective contractors and subcontractors who may do work on a site and come into contact at the site with Designated Substances.

The Ministry of Labour has designated the following substances:

Acrylonitrile

Arsenic

Asbestos

Benzene

Coke Oven Emissions

Ethylene Oxide

Isocyanates

Lead

Mercury

Silica

· Vinyl Chloride

Ontario Regulation 278/05 (O. Reg. 278/05), the Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations, made under the <u>Occupational Health and Safety Act (OHSA)</u>, requires owners of a building to identify Asbestos-containing Materials (ACMs) prior to potential disturbance of the materials.

In addition, an owner of a building is required to have an Asbestos Management Plan (AMP) if ACMs (friable or non-friable) are present in the building and are to remain in place. An inventory of ACMs must be kept on site. All ACMs must be routinely inspected to ensure no damage has occurred, and the inventory must be updated once in each 12-month period and as may be required based on expected changing site conditions, abatement and/or renovation activities. Removal of all asbestos containing materials is required prior to building demolition.

In addition to the Designated Substances, the building was also surveyed for the presence of other hazardous materials such as polychlorinated biphenyls (PCBs), radioactive materials, ozone depleting substances (ODSs), other halocarbons, and mould.

We understand that this survey has been conducted to comply with the regulatory requirements of Ontario Regulation 278/05.

APPENDIX B

Survey Methodology & Background Information

SURVEY METHODOLOGY

For the purpose of this survey, not all Designated Substances or suspect hazardous material were sampled. Selective sampling was carried out only for substances that were suspected to be present or those deemed to have a likely source of origin in the survey areas.

Materials that were homogeneous in nature and/or similar in appearance to other materials tested were considered to be of similar composition. The likelihood of ACMs being present in inaccessible areas such as above gypsum board ceilings or behind gypsum wallboards was determined by assessing the presence of asbestos-containing systems in adjacent areas. Equipment such as boilers, motors, blowers, electrical panels, fire doors etc., were not de-energized or disassembled to examine internal components or materials. These items should be considered to contain hazardous materials until proven otherwise.

During the survey, representative samples of suspect building materials were collected and sent to CAELA accredited independent laboratory for analysis. Laboratory Certificate of Analysis are attached in Appendix C.

Other potential hazardous materials were identified by visual observation and/or by reviewing Material Safety Data Sheets (MSDS) and/or safety labels where available.

Investigated Areas

The survey included all accessible areas and ceiling space within Fauteaux Hall as required under our scope of work. No destructive investigations were performed as part of this survey. Photographs of the areas investigated can be found in Appendix D.

The assessment was directed on the interior structure and finishes of the building. It did not consider current or past owner or occupant articles within the building (i.e. contents, furniture, etc.) and does not report on possible contaminants in the soil under and surrounding the building, or contents of vessels, drums, etc. that may be concealed.

Sampling and Assessment Methodologies

Sampling was conducted as part of this assessment. Results for asbestos and lead samples can be found in the Findings & Recommendation Section 3.0.

A historical review of previous designated substance survey reports and abatement reports was examined as part of this survey. Due to concerns regarding certain historical analytical results, mainly in 2008 and prior years, confirmatory re-sampling was conducted for selected materials previously identified not to contain asbestos. However, building materials previously identified to be asbestos-containing were not re-sampled. The reports are listed as follows,

- Designated Substance Survey by Conestoga-Rovers & Associates (dated December 2007, reference # 45870(17));
- Asbestos Containing Materials Abatement Report by EHS (report dated June 26, 2013, EHS Project No. 04-0033-13-014);
- Asbestos Abatement Report by EHS (report dated June 27, 2011, EHS Project No. 04-0033-11-009);

- Emergency Asbestos Abatement Report by EHS (report dated May 4, 2013, EHS Project No. 04-0033-13-020);
- Potential Asbestos Containing Material Assessment Report by EHS (dated September 6 2013, EHS Project No.: 04-0033-13-050);
- Potential Asbestos Containing Material Assessment Report by EHS (dated November 13 2013, EHS Project No.: 04-0033-13-062);
- Project Specific Asbestos Sampling Report by EHS (dated March 27 2014, EHS Project No.: 04-0033-14-014);
- Pre-Construction Asbestos Containing Materials Assessment by EHS (dated March 22, 2013, EHS Project No. 04-0033-13-013);
- Asbestos Disturbance Report by EHS (report dated June 17, 2011, EHS Project No. 04-0033-11-011);
- Emergency Asbestos Sampling Report by EHS (report dated May 1, 2013, EHS Project No. 04-0033-13-020);
- Asbestos Investigation Report by EHS (report dated May 9, 2013, EHS Project No. 04-0033-13-022);
- Pre-Construction Asbestos Containing Materials Assessment by EHS (dated May 21, 2013, EHS Project No. 04-0033-13-025);
- Asbestos Sampling Report by EHS (report dated July 30, 2015, EHS Project No. 04-0033-15-023);
- o Asbestos Sampling Report by CM3 (report dated July 20, 2018, CM3 Project No. TLW 2016);
- Asbestos Abatement Report by Conestoga-Rovers & Associates (dated June 23 2009, reference # 057012);
- Asbestos Abatement Report by Conestoga-Rovers & Associates (dated June 8 2010, reference # 070776); and,
- Asbestos Abatement Report by Conestoga-Rovers & Associates (dated May 25 2005, reference # 39715).

Asbestos

Background Information on Asbestos

Asbestos is a generic name that has been given to a group of naturally occurring fibrous minerals. In the past, asbestos was commonly used as a component in building materials such as insulation, fireproofing and acoustic or decorative panels. Although there are many types of asbestos, the three main forms of commercial importance in Ontario are chrysotile, amosite and crocidolite.

An Asbestos-Containing Material (ACM) is defined by O. Reg. 278/05 as a material that contains 0.5% or more asbestos by dry weight. ACMs are placed into two general classes, "friable" and "non-friable" ACMs. Friable ACMs are those materials that when dry can be crumbled, pulverized and reduced to powder by hand pressure. Typical friable ACMs include acoustical or decorative texture coats, fireproofing and thermal insulation. Non-friable ACMs are much more durable as they are held together by a binder such as cement, vinyl or asphalt. Typical non-friable ACMs include floor tiles, fire blankets, roofing materials and cementitious products such as wallboards, pipes or siding.

It has been recognized that hazardous situations may exist in buildings where asbestos-containing materials are found. This is especially true where asbestos fibres may become airborne as a result of material ageing, physical damage, and water damage or air movement.

In contrast, there is little reason for concern if the asbestos is in good condition, has not been damaged and is not in a location where it is likely to be disturbed.

Asbestos Survey Methodology

The asbestos survey included the identification of potential friable and non-friable asbestos-containing materials within the surveyed areas of the subject building.

The likelihood of ACMs being present in inaccessible areas such as above gypsum wallboard ceilings and walls was determined by assessing the presence of asbestos-containing materials in adjacent areas.

Fiberglass insulation was not submitted for analysis as it can be identified visually as non-asbestos material.

Building materials suspected of containing asbestos were identified and representative sampling and laboratory testing of these materials was conducted. The number of bulk material samples collected from a homogeneous area was in accordance with Table 1. O. Reg. 278/05 s. 3 (3) below. Building materials suspected of containing asbestos were collected using wetting techniques and hand sampling tools.

Table 1 - O. Reg. 278/05 s. 3(3): Minimum Asbestos Bulk Material Sample Requirements

| Item | Type of material | Size of area of homogeneous material | Minimum number of bulk material samples to be collected |
|------|---|---|--|
| | Surfacing material, including without limitation, material | Less than 90 square metres | 3 |
| 1. | that is applied to surfaces by spraying, by troweling or otherwise, such as acoustical plaster on ceilings and fireproofing materials on structural members | 90 or more square metres, but less than 450 square metres | 5 |
| | | 450 or more square metres | 7 |
| 2. | Thermal insulation, except as described in item 3 | any size | 3 |
| 3. | Thermal insulation patch | Less than 2 linear metres or 0.5 square metres | 1 |
| 4. | Other material | Any size | 3 |

Preliminary identification of the samples was made using polarized light microscopy (PLM), with confirmation of presence and type of asbestos made by dispersion staining optical microscopy. This analytical procedure follows the U.S. Environmental Protection Agency Test Method EPA/600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials, June 1993.

All bulk samples were analysed for asbestos content by Paracel Laboratories Ltd., an independent laboratory. Paracel is a fully accredited facility for asbestos analysis and is accredited under National Voluntary Laboratory Accreditation (NVLAP Lab Codes 200812-0 and 200863-0). Paracel is accredited for asbestos bulk analysis in PLM in Ottawa and Mississauga, respectively. For the Scope of Accreditation under the (CALA) Membership Number 1262, Paracel is accredited for asbestos in air samples by PCM.

Vinyl floors tiles were analyzed using the phase light microscopy (PLM) method of analysis. However, given the composition of vinyl floor products, the PLM analysis method may be prone to yielding false negative analytical results. Therefore, prior to removal or replacement, vinyl floor products previously identified to be negative, should undergo additional analysis by Transmission Electron Microscopy (TEM) to confirm asbestos content, if any.

Materials identified to contain asbestos were assessed on the relative possibility of fibre release into the air due to a combination of their condition and accessibility.

Evaluation of ACMs Based on Condition

In evaluating an ACM's condition, the following criteria was applied:

- Good Material shows no signs of damage and/or is encapsulated. Asbestos-containing material could remain in place until eventual building demolition or major renovation.
- Fair Material shows signs of minor damage (<5% damage) or otherwise near the end of useful life. This includes minor shrinking, cracking, delamination and/ or other damage. Material should be monitored closely and scheduled to be repaired, encapsulated or removed.
- Poor Damage is greater than 5% to any ACM material and is highly recommended to be removed, repaired or encapsulated.

Note: The above evaluation criteria was also applied to other hazardous materials where applicable. Please refer to the Asbestos and Hazardous Materials Checklist in Appendix E & F for further details.

Lead

Background Information on Lead

Lead was a common additive in exterior and hard-wearing paint applications. Lead was used to prolong shelf life of paint and to increase its flexibility and durability to wear and weather. Acute exposure to lead by inhalation or ingestion may cause headaches, fatigue, nausea, abdominal cramps and joint pain. Chronic exposures can cause reduced haemoglobin production and reduced lifespan. It has also been known to impact the body's central and peripheral nervous systems and brain function and has been linked to learning disabilities in children.

Currently in Ontario, there is no regulatory limit that determines what concentration of lead constitutes a "lead containing material". On October 21, 2010, Health Canada, under the *Hazardous Products Act*, stated that the lead content in surface-coating materials, furniture, toys and other articles for children, should not exceed 90 mg/kg (0.009%, 90 ppm). However, this is intended for the importation or sale of products within Canada. Therefore, this is not to be misconstrued as a limit established to define a lead-containing material or a limit with respect to lead on construction projects.

The Environmental Abatement Council of Canada (EACC) has also developed the "Lead Guideline for Construction, Renovation, Maintenance or Repair" dated October 2014, which discusses the classification, handling, disturbance and removal of lead-containing materials. For the purpose of this guideline, paints or surface coatings containing less than or equal to 0.1% lead by weight (1000 mg/kg or 1000 ppm) are considered low-level lead paints or surface coatings. If these materials (and their respective surfaces) are disturbed in a

non-aggressive manner and performed using adequate dust control procedures, then worker protection from the inhalation of lead is not required.

Furthermore, paints or surface coatings containing greater than 0.1% lead by weight are considered lead-containing paints or surface coatings. If these materials (and their respective surfaces) are disturbed, appropriate lead abatement procedures must always be followed.

Exposure to lead-containing materials is regulated under Ontario Regulation 490/09, *Designated Substances* made under the Occupational Health and Safety Act. Care must be taken to prevent lead-containing particles from becoming airborne during the disturbance of lead-containing surfaces (i.e., during renovation or demolition projects). All lead abatement work must follow procedures outlined in the <u>Guideline Lead on Construction Projects</u>, issued in September 2004 (amended in April 2011) by the Occupational Health and Safety branch of the Ministry of Labour (Type 1-3). Similarly, the lead abatement work procedures outlined in the <u>EACC Lead Guideline for Construction, Renovation, Maintenance or Repair</u> (October 2014) may also be implemented (Class 1-3).

Lead is known to have been used in solder on copper plumbing fixtures, in lead conduit pipes, in lead-calcium battery plates, ammunition, and in nuclear and X-ray shielding devices. However, these materials were not sampled during this investigation, but were noted where applicable.

To verify lead content in paints, representative bulk samples of paint and finishes suspected of containing lead were collected. Bulk samples were scraped down to the building base structure, with all possible layer's present, placed in sealed plastic bags and labeled; and then submitted to an independent laboratory for analysis. Samples were treated with a dilute nitric acid sample digestion prior to filtration. Analysis utilized for lead detection in filtered samples was inductively coupled plasma optical emission spectrometry (ICP-OES).

Mercury

Background Information on Mercury

Mercury is known to cause poisoning in humans through the inhalation of vapours, ingestion of contaminated materials or skin absorption through direct contact with the liquid.

Precautions must be taken to prevent mercury vapours from becoming airborne during renovations or demolition of the building. Exposure to airborne mercury is regulated under the Revised O. Reg. 490/09 as amended – Regulation respecting Mercury – made under the Occupational Health and Safety Act; and under O. Reg. 558, which amended O. Reg. 347/90 (General - Waste Management), mercury is classified as a Schedule 2(b) Hazardous Waste Chemical. Its hazardous waste number is U151.

Mercury is found in products such as thermostats, temperature and pressure gauges, fluorescent lamps and batteries. Mercury in products can be released to the environment through breakage, or disposal at the end of a product's useful life. Improper disposal of these mercury products poses a health and environmental risk to everyone. In addition, the disposal of mercury-containing products can create wastes that are often classified as hazardous. Wastes that leach mercury in concentrations exceeding Ontario Regulation 347/90 (General - Waste Management) limits are also considered hazardous.

The mercury in thermostats switch contains approximately 3-4 grams of mercury in a glass ampoule, typically attached to a metal coil. Mercury-containing switches have been used in thermostats for over 40 years.

Mercury is an essential component in fluorescent lamps and HID lamps. The mercury is in a vapour form and in the phosphor coating on the lamp tube. Estimates of the mercury content contained in compact, 4 foot, and 8-foot lamps are 10 mg, 23 mg, and 46 mg respectively.

Most fluorescent lamps qualify as hazardous waste when removed from service and are therefore prohibited from disposal in the solid waste stream. Fluorescent lamps would be classified as 146T on your facility Generator Registration Report under O. Reg. 347/90 - General Waste Management, as amended by O. Reg. 558/00. Under this regulation, if the leachate results exceed 0.1 milligrams of mercury per litre for a given waste, then the facility must treat the waste as hazardous waste. Most fluorescent and HID lamps will exceed the leachate toxicity limit; therefore, these wastes must be registered and treated as hazardous waste or sent for recycling.

Silica

Background Information on Silica

Silica is expected to be present in building materials such as concrete, brick, mortar and ceramic tiles located throughout the structures. Free crystalline silica (②-Quartz) may be a component in ceiling tiles and gypsum board. Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the building.

Exposure to airborne silica is regulated under Ontario Regulation 490/09, *Designated Substances* - made under the Occupational Health and Safety Act.

Polychlorinated Biphenyls (PCBs)

Background Information on PCBs

Polychlorinated Biphenyls (PCBs) were commonly used as dielectric insulating fluid in electrical equipment such as transformers and capacitors, and in the fluorescent and HID lamp ballasts. The production of PCBs in the North America started in 1929 and was banned at the beginning of 1979. After 1981, no manufacturers produced fluorescent and HID lamps with PCB-containing ballasts.

PCBs are not a designated substance under the Occupational Health and Safety Act.

PCB Regulations (SOR/2008-273)

The *PCB Regulations* (the Regulations) set specific deadlines for ending the use of PCBs in concentrations at or above 50 mg/kg, eliminating all PCBs and equipment containing PCBs currently in storage and limiting the period of time PCBs can be stored before being destroyed. The Regulations also establish sound practices for the better management of the remaining PCBs in use (i.e. those with content of less than 50 mg/kg), until their eventual elimination, to prevent contamination of dielectric fluids and dispersion of PCBs in small quantities into other liquids.

Ozone Depleting Substances (ODSs) and Other Halocarbons

Background Information on ODSs

Within Ontario, the general use of ozone depleting substances (ODSs) and other halocarbons is controlled through Regulation 463/10 of the Environmental Protection Act. Production of ODSs in the form of hydro chlorofluorocarbons (HCFCs) and chlorofluorocarbons (CFCs) ceased in Canada in 1993 as a result of their ozone-depleting characteristics. Importation of CFCs into Canada ceased in 1997 and total ban was placed on their use since 2010. The use of these materials is still permitted in existing equipment, but equipment must be serviced by a licensed contractor such that CFCs are contained and not released to the environment during servicing or operation.

Radioactive Materials

There are two types of smoke detectors commonly found in building (residential, institutional, commercial, industrial, etc). Photoelectric-type smoke detectors detect smoke using an optical sensor, whereas ionization-type smoke detectors use an ionization chamber containing radioactive material. The ionization type is cheaper and is particularly common in older buildings. A typical modern detector contains about 1.0 microcurie of the radioactive element americium, a decrease from 3 microcurie in 1978. The use of sealed radioactive material sources in fire detection systems is still permitted and regulated by the Canadian Nuclear Safety Commission (CNSC) and the Canadian Nuclear Safety Act. The radioactive sources in smoke alarms are sealed and contained within a metal case inside the smoke detector and must not be damaged or tampered with.

Mould & Water Damage

Mould growth inside buildings is due to excess moisture caused by leakages, condensation or capillary movement of water into the building. Toxic moulds such as *Stachybotrys chartarum* and some species of *Aspergillus* spp. are greenish-black, wet and slimy moulds that grow on soaking wet cellulose-based materials. They are often found near water leaks or where drying is very slow and can form after flooding if insufficient cleanup and drying occurred. They will generally not occur if materials are kept dry.

MPL conducted a general visual assessment for any obvious signs of visible mould and/or water damage. Based on our visual observations, the following guidelines were used in providing our recommendations for remedial action where required:

- Institute of Inspection Cleaning and Restoration Certification (IICRC) S520 Standard and Reference for Professional Mould Remediation.
- The Canadian Construction Association (CCA) Mould Guidelines for the Canadian construction industry (CCA document 82-2004)
- Environmental Abatement Council of Canada (EACC) Mould Abatement Guidelines.

Other Designated Substances

Select Designated Substances (acrylonitrile, arsenic, coke oven emissions, ethylene oxide, isocyanates, benzene, or vinyl chloride) are not expected to be present in the building in matrix or sufficient quantities to cause an exceedance of Ministry of Labour exposure guidelines. As such, no sampling was conducted for these materials.

Vinyl Chloride

Vinyl chloride (monomer) is likely to be present in stable form within poly vinyl-chloride (PVC) piping and conduits and as a component of interior finishes. Such building materials are not considered to be hazardous in their current matrix/composition.

Acrylonitrile

Acrylonitrile or ACN (also known as vinyl cyanide) is an explosive, flammable liquid used in the manufacture of acrylic fibres, rubber-like materials and pesticide fumigants. Acrylonitrile was not noted and would not be expected to be present in the project specific area/surveyed area/subject building.

Arsenic

Arsenic is used in metallurgy for hardening copper, lead and alloys, in pigment production, in the manufacture of certain types of glass, in insecticides, fungicides and rodenticides, as a by-product in the smelting of copper ores, and as a dopant material in semiconductor manufacturing. Arsenic or arsenic compounds were not noted and are not expected to be present in the project specific area/surveyed area/subject building.

Benzene

Benzene or benzol is a colourless liquid. It is used as an intermediate in the production of styrene, phenol, cyclohexane, and other organic chemicals, and in the manufacture of detergents, pesticides, solvents, and paint removers. It is also found in gasoline. Benzene may be present in stable form in roofing materials, paints and adhesives located throughout the subject building. Such building materials are not considered to be hazardous in their current matrix/composition.

Coke Oven Emissions

Coke oven emission is benzene soluble fraction of total particulate matter of the substances emitted into the atmosphere from metallurgical coke ovens.

Ethylene Oxides

Ethylene oxide is a colourless gas liquefying below 12°C. It is used generally as a fumigant and sterilizing agent for medical equipment. It is used generally as a fumigant and sterilizing agent for medical equipment.

Isocyanates

Isocyanates compounds may be present in stable form in paint finishes, varnishes, and polyurethane plastics, synthetic rubbers, foams and adhesives. Such building materials are not considered to be hazardous in their current matrix/composition.

In order to reduce the potential for exposure to workers or occupants, any suspect hazardous building material(s) that are not detailed within this survey due to inaccessibility and/or are discovered during renovation/demolition activities, must be properly assessed and/or tested prior to their disturbance.

APPENDIX C

Laboratory Analytical Reports



15 - 6800 Kitimat Rd Mississauga, ON, L5N 5M1 1-800-749-1947 www.paracellabs.com

Certificate of Analysis

McIntosh Perry Limited (Concord)

6240 Hwy 7, Suite 200 Woodbridge, ON L4H 0R2 Attn: Diana Banakh

Client PO:

Project: Z1920014HZ (Fauteux Hall)

Custody:

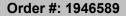
Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Order #: 1946589

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

| Paracel ID | Client ID | |
|--------------|--|-----------------------------|
| 1946589-01 | BS 1.1 Carpet Mastic Yellow - FTX 115 | |
| 1946589-02 | BS 1.2 Carpet Mastic Yellow - FTX 115 | |
| 1946589-03 | BS 1.3 Carpet Mastic Yellow - FTX 115 | |
| 1946589-04.1 | BS 2.1 VFT Red Camo - FTX 106 | |
| 1946589-04.2 | BS 2.1 VFT Red Camo - FTX 106 | |
| 1946589-05.1 | BS 2.2 VFT Red Camo - FTX 106 | |
| 1946589-05.2 | BS 2.2 VFT Red Camo - FTX 106 | |
| 1946589-06.1 | BS 2.3 VFT Red Camo - FTX 106 | |
| 1946589-06.2 | BS 2.3 VFT Red Camo - FTX 106 | |
| 1946589-07.1 | BS 3.1 VFT Beige with Red and Green - FTX 106 | |
| 1946589-07.2 | BS 3.1 VFT Beige with Red and Green - FTX 106 | |
| 1946589-08.1 | BS 3.2 VFT Beige with Red and Green - FTX 106 | |
| 1946589-08.2 | BS 3.2 VFT Beige with Red and Green - FTX 106 | |
| 1946589-09.1 | BS 3.3 VFT Beige with Red and Green - FTX 106 | |
| 1946589-09.2 | BS 3.3 VFT Beige with Red and Green - FTX 106 | |
| 1946589-10.1 | BS 4.1 VFT Green Camo - FTX 106 | |
| 1946589-10.2 | BS 4.1 VFT Green Camo - FTX 106 | |
| 1946589-11.1 | BS 4.2 VFT Green Camo - FTX 106 | |
| 1946589-11.2 | BS 4.2 VFT Green Camo - FTX 106 | |
| 1946589-12.1 | BS 4.3 VFT Green Camo - FTX 106 | |
| 1946589-12.2 | BS 4.3 VFT Green Camo - FTX 106 | |
| 1946589-13.1 | BS 5.1 VFT Beige with Brown and White Lines - FT | X 240 |
| 1946589-13.2 | BS 5.1 VFT Beige with Brown and White Lines - FT | X 240 |
| 1946589-14.1 | BS 5.2 VFT Beige with Brown and White Lines - FT | X 240 |
| 1946589-14.2 | BS 5.2 VFT Beige with Brown and White Lines - FT | X 240 |
| 1946589-15.1 | BS 5.3 VFT Beige with Brown and White Lines - FT | X 240 |
| Approved By: | Day | Emma Diaz Senior Analyst |

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.





Certificate of Analysis

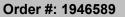
Client: McIntosh Perry Limited (Concord)

Client PO:

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Client PO: | |
|--------------|---|
| 1946589-15.2 | BS 5.3 VFT Beige with Brown and White Lines - FTX 240 |
| 1946589-16.1 | BS 6.1 VFT - White with Black Flakes - FTX 413 |
| 1946589-16.2 | BS 6.1 VFT - White with Black Flakes - FTX 413 |
| 1946589-17.1 | BS 6.2 VFT - White with Black Flakes - FTX 413 |
| 1946589-17.2 | BS 6.2 VFT - White with Black Flakes - FTX 413 |
| 1946589-18.1 | BS 6.3 VFT - White with Black Flakes - FTX 413 |
| 1946589-18.2 | BS 6.3 VFT - White with Black Flakes - FTX 413 |
| 1946589-19.1 | BS 7.1 VSF 3 x 3 Blue - FTX 400 |
| 1946589-19.2 | BS 7.1 VSF 3 x 3 Blue - FTX 400 |
| 1946589-20.1 | BS 7.2 VSF 3 x 3 Blue - FTX 400 |
| 1946589-20.2 | BS 7.2 VSF 3 x 3 Blue - FTX 400 |
| 1946589-21.1 | BS 7.3 VSF 3 x 3 Blue - FTX 400 |
| 1946589-21.2 | BS 7.3 VSF 3 x 3 Blue - FTX 400 |
| 1946589-22 | BS 8.1 VSF Grey/Orange/Brown - FTX 214 |
| 1946589-23 | BS 8.2 VSF Grey/Orange/Brown - FTX 214 |
| 1946589-24 | BS 8.3 VSF Grey/Orange/Brown - FTX 214 |
| 1946589-25 | BS 9.1 Vinyl Baseboard Mastic - FTX 129 |
| 1946589-26 | BS 9.2 Vinyl Baseboard Mastic - FTX 129 |
| 1946589-27 | BS 9.3 Vinyl Baseboard Mastic - FTX 129 |
| 1946589-28 | BS 10.1 VFT Pink with Multicolour Streaks - FTX 240 Hallway |
| 1946589-29 | BS 10.2 VFT Pink with Multicolour Streaks - FTX 240 Hallway |
| 1946589-30 | BS 10.3 VFT Pink with Multicolour Streaks - FTX 240 Hallway |
| 1946589-31 | BS 11.1 SCT 2 x 4 Pinholes Varying Size Fissures - FTX 219 |
| 1946589-32 | BS 11.2 SCT 2 x 4 Pinholes Varying Size Fissures - FTX 219 |
| 1946589-33 | BS 11.3 SCT 2 x 4 Pinholes Varying Size Fissures - FTX 219 |
| 1946589-34 | BS 12.1 SCT 2 x 4 Pinholes with Triangular Fissures/Dents - FTX 306 |
| 1946589-35 | BS 12.2 SCT 2 x 4 Pinholes with Triangular Fissures/Dents - FTX 306 |
| 1946589-36 | BS 12.3 SCT 2 x 4 Pinholes with Triangular Fissures/Dents - FTX 306 |
| 1946589-37 | BS 13.1 SCT 2 x 2 Small Fissures - FTX 502 |
| 1946589-38 | BS 13.2 SCT 2 x 2 Small Fissures - FTX 502 |
| 1946589-39 | BS 13.3 SCT 2 x 2 Small Fissures - FTX 502 |
| 1946589-40 | BS 14.1 SCT 2 x 4 Plenty of Dots - FTX 408 |
| 1946589-41 | BS 14.2 SCT 2 x 4 Plenty of Dots - FTX 408 |
| 1946589-42 | BS 14.3 SCT 2 x 4 Plenty of Dots - FTX 408 |
| 1946589-43 | BS 15.1 Carpet Mastic Brown - FTX 523 |
| 1946589-44 | BS 15.2 Carpet Mastic Brown - FTX 523 |
| 1946589-45 | BS 15.3 Carpet Mastic Brown - FTX 523 |
| 1946589-46 | BS 16.1 Carpet Mastic - FTX 419 |
| 1946589-47 | BS 16.2 Carpet Mastic - FTX 419 |
| 1946589-48 | BS 16.3 Carpet Mastic - FTX 419 |
| 1946589-49 | BS 17.1 Wall Texture Coat Stairs - FTX 519 |
| 1946589-50 | BS 17.2 Wall Texture Coat Stairs - FTX 519 |
| 1946589-51 | BS 17.3 Wall Texture Coat Stairs - FTX 519 |
| 1946589-52 | BS 18.1 Wallpaper Beige/Yellow - FTX 400 |
| | |



Report Date: 20-Nov-2019

Order Date: 15-Nov-2019



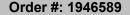
Certificate of Analysis

Client: McIntosh Perry Limited (Concord)

Client: McIntosh Perry Limited (Concord)
Client PO:

Project Description: Z1920014HZ (Fauteux Hall)

| 1946589-53 | BS 18.2 Wallpaper Beige/Yellow - FTX 400 |
|--------------|---|
| 1946589-54 | BS 18.3 Wallpaper Beige/Yellow - FTX 400 |
| 1946589-55.1 | BS 19.1 Ceiling Plaster - FTX 523E |
| 1946589-55.2 | BS 19.1 Ceiling Plaster - FTX 523E |
| 1946589-56 | BS 19.2 Ceiling Plaster - FTX 523E |
| 1946589-57 | BS 19.3 Ceiling Plaster - FTX 523E |
| 1946589-58 | BS 19.4 Ceiling Plaster - FTX 523E |
| 1946589-59.1 | BS 19.5 Ceiling Plaster - FTX 527 |
| 1946589-59.2 | BS 19.5 Ceiling Plaster - FTX 527 |
| 1946589-60.1 | BS 19.6 Ceiling Plaster - FTX 527 |
| 1946589-60.2 | BS 19.6 Ceiling Plaster - FTX 527 |
| 1946589-61 | BS 19.7 Ceiling Plaster - FTX 527 |
| 1946589-62 | BS 20.1 Drywall Joint Compound - Wall FTX 129 |
| 1946589-63 | BS 20.2 Drywall Joint Compound - Wall FTX 240 |
| 1946589-64 | BS 20.3 Drywall Joint Compound - Wall FTX 316 |
| 1946589-65 | BS 20.4 Drywall Joint Compound - Wall FTX 414 |
| 1946589-66 | BS 20.5 Drywall Joint Compound - Wall FTX 516 |
| 1946589-67 | BS 20.6 Drywall Joint Compound - Wall FTX 519 |
| 1946589-68 | BS 20.7 Drywall Joint Compound - Wall FTX 527 |
| | |



Report Date: 20-Nov-2019

Order Date: 15-Nov-2019



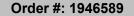
Certificate of Analysis

Client: McIntosh Perry Limited (Concord)

Project Description: Z1920014HZ (Fauteux Hall)

Client PO:

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification % | Content |
|--------------|-------------|--------|------------------|-------------------|--|---------|
| 1946589-01 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 1.1 Carpet Mastic Yellow - FTX 115 | |
| | | | | | Non-Fibers | 100 |
| 1946589-02 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 1.2 Carpet Mastic Yellow - FTX 115 | |
| | | | | | Non-Fibers | 100 |
| 1946589-03 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 1.3 Carpet Mastic Yellow - FTX 115 | |
| | | | | | Non-Fibers | 100 |
| 1946589-04.1 | 17-Oct-19 | Red | Vinyl Floor Tile | No | Client ID: BS 2.1 VFT Red Camo - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-04.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 2.1 VFT Red Camo - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-05.1 | 17-Oct-19 | Red | Vinyl Floor Tile | No | Client ID: BS 2.2 VFT Red Camo - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-05.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 2.2 VFT Red Camo - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-06.1 | 17-Oct-19 | Red | Vinyl Floor Tile | No | Client ID: BS 2.3 VFT Red Camo - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-06.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 2.3 VFT Red Camo - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-07.1 | 17-Oct-19 | White | Vinyl Floor Tile | No | Client ID: BS 3.1 VFT Beige with Red and Green - FTX 106 | |
| | | | | | Non-Fibers | 100 |
| 1946589-07.2 | 17-Oct-19 | | | | Client ID: BS 3.1 VFT Beige with Red and Green - FTX 106 | [Z-01a] |
| | | | | | not analyzed | |
| 1946589-08.1 | 17-Oct-19 | White | Vinyl Floor Tile | No | Client ID: BS 3.2 VFT Beige with Red and Green - FTX 106 | |
| | | | | | Non-Fibers | 100 |





Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Content |
|--------------|-------------|--------|------------------|-------------------|--|---------------------|
| 1946589-08.2 | 17-Oct-19 | Black | Mastic | No | Client ID: BS 3.2 VFT Beige with Red and Gr FTX 106 | een - |
| | | | | | Non-Fibers | 100 |
| 1946589-09.1 | 17-Oct-19 | White | Vinyl Floor Tile | No | Client ID: BS 3.3 VFT Beige with Red and Gr FTX 106 | reen - |
| | | | | | Non-Fibers | 100 |
| 1946589-09.2 | 17-Oct-19 | Black | Mastic | No | Client ID: BS 3.3 VFT Beige with Red and Gr FTX 106 | reen - |
| | | | | | Non-Fibers | 100 |
| 1946589-10.1 | 17-Oct-19 | Green | Vinyl Floor Tile | No | Client ID: BS 4.1 VFT Green Camo - FTX 106 | : |
| | | | | | Non-Fibers | 100 |
| 1946589-10.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 4.1 VFT Green Camo - FTX 106 | i . |
| | | | | | Non-Fibers | 100 |
| 1946589-11.1 | 17-Oct-19 | Green | Vinyl Floor Tile | No | Client ID: BS 4.2 VFT Green Camo - FTX 106 | i |
| | | | | | Non-Fibers | 100 |
| 1946589-11.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 4.2 VFT Green Camo - FTX 106 | i |
| | | | | | Non-Fibers | 100 |
| 1946589-12.1 | 17-Oct-19 | Green | Vinyl Floor Tile | No | Client ID: BS 4.3 VFT Green Camo - FTX 106 | i |
| | | | | | Non-Fibers | 100 |
| 1946589-12.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 4.3 VFT Green Camo - FTX 106 | i |
| | | | | | Non-Fibers | 100 |
| 1946589-13.1 | 17-Oct-19 | Beige | Vinyl Floor Tile | Yes | Client ID: BS 5.1 VFT Beige with Brown and Lines - FTX 240 | White |
| | | | | | Chrysotile | 8 |
| | | | | | Non-Fibers | 92 |
| 1946589-13.2 | 17-Oct-19 | Brown | Mastic | Yes | Client ID: BS 5.1 VFT Beige with Brown and | White |
| | | | | | Lines - FTX 240 | [AS-PT] |
| | | | | [AS] | rc]Chrysotile | <mdl< td=""></mdl<> |
| | | | | | Non-Fibers | 100 |



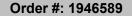
Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Conten |
|--------------|-------------|--------|----------------------|-------------------|---|---------------------|
| 1946589-14.1 | 17-Oct-19 | | | | Client ID: BS 5.2 VFT Beige with Bru Lines - FTX 240 | own and White |
| | | | | | not analyzed | |
| 1946589-14.2 | 17-Oct-19 | Brown | Mastic | Yes | Client ID: BS 5.2 VFT Beige with Br | own and White |
| | | | | | Lines - FTX 240 | [AS-PT] |
| | | | | [ASTro | c]Chrysotile | <mdl< td=""></mdl<> |
| | | | | | Non-Fibers | 100 |
| 1946589-15.1 | 17-Oct-19 | | | | Client ID: BS 5.3 VFT Beige with Br | own and White |
| | | | | | Lines - FTX 240 | |
| | | | | | not analyzed | |
| 1946589-15.2 | 17-Oct-19 | Brown | Mastic | No | Client ID: BS 5.3 VFT Beige with Br | own and White |
| | | | | | Lines - FTX 240 | |
| | | | | | Non-Fibers | 100 |
| 1946589-16.1 | 17-Oct-19 | White | Vinyl Floor Tile | No | Client ID: BS 6.1 VFT - White with B | lack Flakes - |
| | | | | | FTX 413 | |
| | | | | | Non-Fibers | 100 |
| 1946589-16.2 | 17-Oct-19 | Black | Mastic | No | Client ID: BS 6.1 VFT - White with B | lack Flakes - |
| | | | | | FTX 413 | |
| | | | | | Non-Fibers | 100 |
| 1946589-17.1 | 17-Oct-19 | White | Vinyl Floor Tile | No | Client ID: BS 6.2 VFT - White with B FTX 413 | lack Flakes - |
| | | | | | Non-Fibers | 100 |
| 1946589-17.2 | 17-Oct-19 | Black | Mastic | No | Client ID: BS 6.2 VFT - White with B FTX 413 | lack Flakes - |
| | | | | | Non-Fibers | 100 |
| 1946589-18.1 | 17-Oct-19 | White | Vinyl Floor Tile | No | Client ID: BS 6.3 VFT - White with B | lack Flakes - |
| | | | | | Non-Fibers | 100 |
| 1946589-18.2 | 17-Oct-19 | Black | Mastic | No | Client ID: BS 6.3 VFT - White with B FTX 413 | lack Flakes - |
| | | | | | Non-Fibers | 100 |
| 1946589-19.1 | 17-Oct-19 | Blue | Vinyl Sheet Flooring | No | Client ID: BS 7.1 VSF 3 x 3 Blue - FT | TX 400 |
| | | | | | Non-Fibers | 100 |
| 1946589-19.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 7.1 VSF 3 x 3 Blue - FT | TX 400 |
| | | | | | Non-Fibers | 100 |





Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Conten |
|--------------|-------------|--------|----------------------|-------------------|--|----------|
| 1946589-20.1 | 17-Oct-19 | Blue | Vinyl Sheet Flooring | No | Client ID: BS 7.2 VSF 3 x 3 Blue - FTX 400 | |
| | | | | | Non-Fibers | 100 |
| 1946589-20.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 7.2 VSF 3 x 3 Blue - FTX 400 | |
| | | | | | Non-Fibers | 100 |
| 1946589-21.1 | 17-Oct-19 | Blue | Vinyl Sheet Flooring | No | Client ID: BS 7.3 VSF 3 x 3 Blue - FTX 400 | |
| | | | | | Non-Fibers | 100 |
| 1946589-21.2 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 7.3 VSF 3 x 3 Blue - FTX 400 | |
| | | | | | Non-Fibers | 100 |
| 1946589-22 | 17-Oct-19 | Grey | Vinyl Sheet Flooring | No | Client ID: BS 8.1 VSF Grey/Orange/Brown - F | тх |
| | | | | | Cellulose | 20 |
| | | | | | Non-Fibers | 80 |
| 1946589-23 | 17-Oct-19 | Grey | Vinyl Sheet Flooring | No | Client ID: BS 8.2 VSF Grey/Orange/Brown - F 214 | тх |
| | | | | | Cellulose | 20 |
| | | | | | Non-Fibers | 80 |
| 1946589-24 | 17-Oct-19 | Grey | Vinyl Sheet Flooring | No | Client ID: BS 8.3 VSF Grey/Orange/Brown - F | тх |
| | | | | | Cellulose | 20 |
| | | | | | Non-Fibers | 80 |
| 1946589-25 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 9.1 Vinyl Baseboard Mastic - FT | ΓX 129 |
| | | | | | Non-Fibers | 100 |
| 1946589-26 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 9.2 Vinyl Baseboard Mastic - FT | ΓX 129 |
| | | | | | Non-Fibers | 100 |
| 1946589-27 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 9.3 Vinyl Baseboard Mastic - F | ΓX 129 |
| | | | | | Non-Fibers | 100 |
| 1946589-28 | 17-Oct-19 | Pink | Vinyl Floor Tile | No | Client ID: BS 10.1 VFT Pink with Multicolour | |
| | | | | | Streaks - FTX 240 Hallway | [Z-01] |
| | | | | | Non-Fibers | 100 |



Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Conten |
|------------|-------------|--------|------------------|-------------------|--|----------|
| 1946589-29 | 17-Oct-19 | Pink | Vinyl Floor Tile | No | Client ID: BS 10.2 VFT Pink with Multicolour | |
| | | | | | Streaks - FTX 240 Hallway | [Z-01] |
| | | | | | Non-Fibers | 100 |
| 1946589-30 | 17-Oct-19 | Pink | Vinyl Floor Tile | No | Client ID: BS 10.3 VFT Pink with Multicolour | |
| | | | | | Streaks - FTX 240 Hallway | [Z-01] |
| | | | | | Non-Fibers | 100 |
| 1946589-31 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 11.1 SCT 2 x 4 Pinholes Varying | Size |
| | | 3.0 | 3 | | Fissures - FTX 219 | |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-32 | 17-Oct-19 | Poigo | Ceiling Tile | No | Client ID: BS 11.2 SCT 2 x 4 Pinholes Varying | Size |
| 1940009-32 | 17-001-19 | Beige | Celling Tile | NO | Fissures - FTX 219 | - |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| | | | | | | |
| 1946589-33 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 11.3 SCT 2 x 4 Pinholes Varying Fissures - FTX 219 | Size |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-34 | 17-Oct-19 | Beige | Ceiling Tile | Yes | Client ID: BS 12.1 SCT 2 x 4 Pinholes with | |
| 1010000 01 | 55. 15 | 20.gc | | | Triangular Fissures/Dents - FTX 306 | |
| | | | | | Chrysotile | 1 |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 29 |
| 1046590 25 | 17 Oct 10 | | | | Client ID: BS 12.2 SCT 2 x 4 Pinholes with | |
| 1946589-35 | 17-Oct-19 | | | | Triangular Fissures/Dents - FTX 306 | |
| | | | | | not analyzed | |
| 1046580 26 | 17 Oct 10 | | | | Client ID: BS 12.3 SCT 2 x 4 Pinholes with | |
| 1946589-36 | 17-Oct-19 | | | | Triangular Fissures/Dents - FTX 306 | |
| | | | | | not analyzed | |



Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Content |
|------------|-------------|--------|--------------|-------------------|---|------------------|
| 1946589-37 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 13.1 SCT 2 x 2 Small Fissures - FT | x |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-38 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 13.2 SCT 2 x 2 Small Fissures - FT | x |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-39 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 13.3 SCT 2 x 2 Small Fissures - FT | X |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-40 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 14.1 SCT 2 x 4 Plenty of Dots - FTX 408 | |
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-41 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 14.2 SCT 2 x 4 Plenty of Dots - FTX 408 | (|
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-42 | 17-Oct-19 | Beige | Ceiling Tile | No | Client ID: BS 14.3 SCT 2 x 4 Plenty of Dots - FTX 408 | [|
| | | | | | Cellulose | 40 |
| | | | | | MMVF | 30 |
| | | | | | Non-Fibers | 30 |
| 1946589-43 | 17-Oct-19 | | | | Client ID: BS 15.1 Carpet Mastic Brown - FTX 52 | 3 [Z-01b] |
| | | | | | not analyzed | |
| 1946589-44 | 17-Oct-19 | | | | Client ID: BS 15.2 Carpet Mastic Brown - FTX 52 | 3 [Z-01b] |
| | | | | | not analyzed | [= 310] |



Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Conten |
|--------------|-------------|--------|--------------|-------------------|---|----------|
| 1946589-45 | 17-Oct-19 | | | | Client ID: BS 15.3 Carpet Mastic Brown - FTX 523 | |
| | | | | | not analyzed | [Z-01b] |
| | | | | | | |
| 1946589-46 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 16.1 Carpet Mastic - FTX 419 | |
| | | | | | Non-Fibers | 100 |
| 1946589-47 1 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 16.2 Carpet Mastic - FTX 419 | |
| | | | | | Non-Fibers | 100 |
| 1946589-48 | 17-Oct-19 | Yellow | Mastic | No | Client ID: BS 16.3 Carpet Mastic - FTX 419 | |
| | | | | | Non-Fibers | 100 |
| 1946589-49 | 17-Oct-19 | Grey | Texture Coat | No | Client ID: BS 17.1 Wall Texture Coat Stairs - FTX 519 | |
| | | | | | Non-Fibers | 100 |
| 1946589-50 | 17-Oct-19 | Grey | Texture Coat | No | Client ID: BS 17.2 Wall Texture Coat Stairs - FTX 519 | |
| | | | | | Non-Fibers | 100 |
| 1946589-51 | 17-Oct-19 | Grey | Texture Coat | No | Client ID: BS 17.3 Wall Texture Coat Stairs - FTX 519 | |
| | | | | | Non-Fibers | 100 |
| 1946589-52 | 17-Oct-19 | Beige | Wallpaper | No | Client ID: BS 18.1 Wallpaper Beige/Yellow - FTX 400 | |
| | | | | | Non-Fibers | 80 |
| | | | | | Other fibers | 20 |
| 1946589-53 | 17-Oct-19 | Beige | Wallpaper | No | Client ID: BS 18.2 Wallpaper Beige/Yellow - FTX 400 | |
| | | | | | Non-Fibers | 80 |
| | | | | | Other fibers | 20 |
| 1946589-54 | 17-Oct-19 | Beige | Wallpaper | No | Client ID: BS 18.3 Wallpaper Beige/Yellow - FTX 400 | |
| | | | | | Non-Fibers | 80 |
| | | | | | Other fibers | 20 |
| 1946589-55.1 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.1 Ceiling Plaster - FTX 523E | |
| | | | | | Non-Fibers | 100 |



Client PO:

Client: McIntosh Perry Limited (Concord)

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Conter |
|------------------------|-------------|--------|------------------------|-------------------|---|----------|
| 1946589-55.2 | 17-Oct-19 | White | Plaster | No | Client ID: BS 19.1 Ceiling Plaster - FTX 523E | |
| | | | | | Non-Fibers | 100 |
| 1946589-56 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.2 Ceiling Plaster - FTX 523E | |
| | | | | | Non-Fibers | 100 |
| 1946589-57 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.3 Ceiling Plaster - FTX 523E | |
| | | | | | Non-Fibers | 100 |
| 1946589-58 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.4 Ceiling Plaster - FTX 523E | |
| | | | | | Non-Fibers | 100 |
| 1946589-59.1 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.5 Ceiling Plaster - FTX 527 | |
| | | | | | Non-Fibers | 100 |
| 1946589-59.2 17-Oct-19 | 17-Oct-19 | White | Plaster | No | Client ID: BS 19.5 Ceiling Plaster - FTX 527 | |
| | | | | | Non-Fibers | 100 |
| 1946589-60.1 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.6 Ceiling Plaster - FTX 527 | |
| | | | | | Non-Fibers | 100 |
| 1946589-60.2 | 17-Oct-19 | White | Plaster | No | Client ID: BS 19.6 Ceiling Plaster - FTX 527 | |
| | | | | | Non-Fibers | 100 |
| 1946589-61 | 17-Oct-19 | Grey | Plaster | No | Client ID: BS 19.7 Ceiling Plaster - FTX 527 | |
| | | | | | Non-Fibers | 100 |
| 1946589-62 | 17-Oct-19 | Grey | Drywall Joint Compound | l No | Client ID: BS 20.1 Drywall Joint Compound - Wa FTX 129 | all |
| | | | | | MMVF | 2 |
| | | | | | Non-Fibers | 98 |
| 1946589-63 | 17-Oct-19 | White | Drywall Joint Compound | l No | Client ID: BS 20.2 Drywall Joint Compound - Wa FTX 240 | all |
| | | | | | Non-Fibers | 100 |
| 1946589-64 | 17-Oct-19 | White | Drywall Joint Compound | l No | Client ID: BS 20.3 Drywall Joint Compound - Wa FTX 316 | all |
| | | | | | Non-Fibers | 100 |

Client PO:

Order #: 1946589

Report Date: 20-Nov-2019 Order Date: 15-Nov-2019

Project Description: Z1920014HZ (Fauteux Hall)

Certificate of Analysis
Client: McIntosh Perry Limited (Concord)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

| Paracel ID | Sample Date | Colour | Description | Asbestos Detected | Material Identification | % Content |
|------------|-------------|--------|------------------------|-------------------|--|--------------------|
| 1946589-65 | 17-Oct-19 | Grey | Drywall Joint Compound | No | Client ID: BS 20.4 Drywall Joint Compound - W FTX 414 Non-Fibers | /all 100 |
| 1946589-66 | 17-Oct-19 | White | Drywall Joint Compound | No | Client ID: BS 20.5 Drywall Joint Compound - W FTX 516 Non-Fibers | /all |
| 1946589-67 | 17-Oct-19 | White | Drywall Joint Compound | No | Client ID: BS 20.6 Drywall Joint Compound - W FTX 519 Non-Fibers | /ail 100 |
| 1946589-68 | 17-Oct-19 | White | Drywall Joint Compound | No | Client ID: BS 20.7 Drywall Joint Compound - W FTX 527 Non-Fibers | /all |

^{*} MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool

Analysis Summary Table

| Analysis | Method Reference/Description | Lab Location | NVLAP Lab Code * | Analysis Date |
|---------------------------------|------------------------------|-----------------|------------------|---------------|
| Asbestos, PLM Visual Estimation | by EPA 600/R-93/116 | 1 - Mississauga | 200863-0 | 19-Nov-19 |

^{*} Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Mississauga Lab: 15 - 6800 Kitimat Rd Mississauga, Ontario, L5N 5M1

Qualifier Notes

Sample Qualifiers:

AS-PT: Asbestos quantitation by PLM Point Count method.

ASTrc: Trace asbestos was observed below the noted detection limit but could not be accurately quantified.

Z-01: Insufficent mastic

Z-01a: Insufficent mastic present

Z-01b: No mastic present in sample

Work Order Revisions | Comments

None

^{**} Analytes in bold indicate asbestos mineral content.

| Paracel ID | : 1946589 | | | Head Office 300 2319 St. Laurent Blvd, Ottawa, Ontario K1G 4 J8 pr. 1-800-749-947 tr. paracelaparacellabs.com | Chain of C | | |
|--|--------------------|---------------|--------------|---|---------------------------------------|-------------------|--|
| Client Name: MeIntosh Perry | | | Project Refe | rence: Z1920014HZ (Fauteux Hall) | Turnanan | I T | |
| Contact Name: Diana Banakh | | | Quote #: 19- | 651 | Turnaround Time: □ Immediate □ 1 Day | | |
| Address: 6240 Highway 7, Suite 200, Concord, Ontario L4K 2A3 | | | PO#: | | _ | 2 Day | |
| | | | Email Addre | ss: d banakh@mcintoshperry.com | _ | Regular | |
| Telephone 905-856-5200 | | | - | germany.com | | | |
| | ACDEOMA | 20.0.2 | | | Date Required: | | |
| Matrix: □ Air X Bulk □ Tape Lift □ Swab □ C | ASBEST |)S & N | IOLD A | ANALYSIS | | 3613 | |
| Analyses: Microscopic Mold. Collegett Mall. Co. | ther Regulate | ory Guid | eline: x O | N □ QC □ AB □ SK □ Other: | | | |
| Analyses: Microscopic Mold Culturable Mold Bacte | ria GRAM PCN | Asbestos | X PLM A | sbestos | | | |
| 1946289 | Sampling | Air Volume | Analysis | Asbestos - Bulk | | | |
| BS11-13 Carnet Martik wellows, ETV115 | Date | (L) | Required | Identify Distinct Building Materials to Be Analyzed | | Positive Step? | |
| BS1.1-1.3 Carpet Mastik yellow - FTX115 BS2.1-2.3 VFT Red Carno - FTX 106 | October 17th, 201 | | PLM | | | Stop? | |
| BS3.1-3.3 VFT Beige with red and green - FTX106 | Detober 17th, 201 | N/A | PLM | | | × | |
| BS4.1-4.3 VFT Green Camo - FTX106 | October 17th, 201 | N/A | PLM | | | × | |
| BSS.1-5.3 VFT Beige with brown and white lines - FTX240 | October 17th, 201 | N/A | PLM | | | х | |
| BS6.1-6.3 VFT - White with black flakes - FTX413 | Detober 17th, 201 | N/A | PLM | | | × | |
| BS7.1-7.3 VSF 3* x 3* blue - FTX400 | October 17th, 2019 | N/A | PLM | | | × | |
| DC0 1 0 3 | October 17th, 2019 | N/A | PLM | | | × | |
| PSS 102 PSS 10 | October 17th, 2019 | N/A | PLM | | | х | |
| Virtyi baseboard mastic - FTX129 | October 17th, 2019 | N/A | PLM | | | × | |
| S10.1-10.3 VFT Pink with multicoloute streaks - FTX 240 halfway | October 17th, 2019 | N/A | PLM | | | × | |
| STL1-1.3 SCT - 2' x 4' Pinholes varying size fissures - FTX219 | October 17th, 2019 | N/A | PLM | | | × | |
| S12.1-12.3 SCT 2'x 4' - Pinholes with triangulas fissures / dents - FTX306 | October 17th, 2019 | N/A | PLM | | | × | |
| \$13,1-13.3 SCT - 2'x 2' small fissures - FTX502 | October 17th, 2019 | N/A | PLM | | | × | |
| S14.1-14.3 SCT 2' x 4' plenty of dots - FTX408 | October 17th, 2019 | N/A | PLM | | | × | |
| S15.1-15.3 Carpet Mastic Brown - FTX523 | October 17th, 2019 | N/A | PLM | | | × | |
| S16.1-16.3 Carpet Mastic - FTX419 | October 17th, 2014 | N/A | PLM | | | × | |
| 17.1-17.3 Wall Texture Coat Stairs - FTX519 | October 17th, 2019 | N/A | PLM | | | × | |
| 18.1-18.3 Wallpaper beige/yellow - FTX400 | October 17th, 2019 | N/A | PLM | | | × | |
| 19.1-19.7 Ceiling Plaster - FTX 523E,523E,523E,523E, 527, 527, 527 | October 17th, 2019 | N/A | PLM | | | × | |
| | | | | | | ^ | |
| 520.1-20.7 Drywall joint compound - Wall FTX 129,240,316,414,516,519,527 | October 17th, 2019 | N/A | PLM | les (at additional cost) per EPA 600/R -93/116 | | × | |

Relinquished By (Print): Diana Banakh

Date/Time:

Chain of Custody (Accordan) Rev. 2.0 Nov. 2017



351 Nash Road North, unit 9B Hamilton, ON L8H 7P4 1-800-749-1947 www.paracellabs.com

Certificate of Analysis

McIntosh Perry Limited (Concord)

6240 Hwy 7, Suite 200 Woodbridge, ON L4H 0R2 Attn: Diana Banakh

Client PO:

Project: Z1920014HZ (Fauteux Hall)

Custody:

Order Date: 15-Nov-2019

Order #: 1946551

Report Date: 19-Nov-2019

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID Client ID

1946551-01 Pb.1 1946551-02 Pb.2

Approved By:



Milan Ralitsch, PhD Senior Technical Manager



Order #: 1946551

Certificate of Analysis

Client: McIntosh Perry Limited (Concord)

Report Date: 19-Nov-2019

Order Date: 15-Nov-2019

Client PO: Project Description: Z1920014HZ (Fauteux Hall)

Analysis Summary Table

| Analysis | Method Reference/Description | Extraction Date A | nalysis Date |
|----------------|-------------------------------|-------------------|--------------|
| Metals, ICP-MS | EPA 6020 - Digestion - ICP-MS | 19-Nov-19 | 19-Nov-19 |

Sample and QC Qualifiers Notes

1- QR-01: Duplicate RPD is high, however, the sample result is less than 10x the MDL.

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

Order #: 1946551

Certificate of Analysis
Client: McIntosh Perry Limited (Concord)

Client PO: Project Description: Z1920014HZ (Fauteux Hall)

Report Date: 19-Nov-2019 Order Date: 15-Nov-2019

Sample Results

| Lead | | | Samp | Matrix: Paint le Date: 17-Oct-19 | |
|------------|-----------|--|----------|-------------------------------------|--------|
| Paracel ID | Client ID | | Units | MDL | Result |
| 1946551-01 | Pb.1 | | % by Wt. | 0.0005 | 0.149 |
| 1946551-02 | Pb.2 | | % by Wt. | 0.0005 | 0.0021 |

Laboratory Internal QA/QC

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--------------------------|---------|--------------------|----------|------------------|--------|---------------|------|--------------|--------|
| Matrix Blank | | | | | ,01120 | | | | 110100 |
| Lead Matrix Duplicate | ND | 0.0005 | % by Wt. | | | | | | |
| Lead | 0.00156 | 0.0005 | % by Wt. | 0.00083 | | | 61.5 | 50 | QR-01 |
| Matrix Spike Lead | 0.136 | 0.0005 | % by Wt. | 0.00083 | 108 | 70-130 | | | |



Paracel ID: 1946551



Head Office

300-2319 St. Laurent Blvd. Ottawa, Ontario K1G 4J8

p: 1-800-749-1947

| ļ | par | race | opara | cell | ahs | co |
|---|-----|------|-------|------|-----|----|

Chain of Custody
(Lab Use Only)

| Client Name: McIntosh Perry | | | | | Project Reference: Z1920014HZ (Fauteux Hall) | | | | | | | | | |
|-----------------------------|--|-------------|------------|-----------|--|---------------|-----------------|---------------------|---------------|--------------|---------|---------------|-------|--|
| 0 | | | | Projec | t Reference: Z19200 | 14HZ (Fauteu: | (Hall) | | | T | urnarou | nd Tir | ne: | |
| Conta | ct Name: Diana Banakh | | | Quote | #: 19-651 | | | | | | | | | |
| Addre | ss:6420 Highway 7, Suite 200, Woodbridge Ontario L4H 4G | 13 | | PO# | | | | | | □ 1 Day | | 03 | Day | |
| 10.00.00 | • | | | | | | | | | - 0.0 | | | | |
| Telepl | ione:905-856-5200 | | | Email | Address: d.banakh@ | meintoshperry | .com | □ 2 Day | | XR | egular | | | |
| SOLUTION OF | | | 2012/08/21 | | | | | | | Date Rec | uired: | | | |
| Cri | teria: 🗆 O. Reg. 153/04 (As Amended) Table 🗆 | RSC Filing | □0.1 | Reg. 558 | 3/00 □ PWQO □ | CCME [| SUB (Storm) S | UB (Sanita | ry) Municipal | ite | □ Oth | | | |
| Matri | Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) | | | | | | | o o (ominu | 7) Manierpa | ту | _ 000 | ci | - | |
| _ | | 33 (Storm/S | anitary Se | ewer) P | Paint) A (Air) O (Ot | her) | | | Require | d Analyses | | | | |
| Para | cel Order Number: | | | 2 | | | | | | TT | | $\overline{}$ | | |
| 33 | | | 9 | ine | Sample Taken | | | | | | | | | |
| | | | Volume | nta | | | | | | | | | | |
| | | ř. | ° N | 0 | | | | | | | | | | |
| | Sample ID/Location Name | Matrix | Air | Jo # | Date | Time | Lead in Paint | | | | | | | |
| 1 | Pb.1 | D | _ | - | | Time | | _ | | | | \vdash | _ | |
| 2 | | P | _ | | October 17th, 201 | | X | | | | | | | |
| | Pb.2 | P | | | October 17th, 201 | | X | | | | | | | |
| Comr | nents: 2 samples | | | | | | | | | | Method | of Deliv | rerv: | |
| | $\alpha +$ | | | | | | | | | | 17575 | | - | |
| Reling | ished By (Sign): | Dagaina | d by Driv | war/Danie | | | | | | | M | nite | a. | |
| | | | | | | 11 | ed at Lab: | | | Verified By: | Λ | 0 | 1 | |
| Reling | ished By (Print): Diana Banakh | | yna | 77.5 | 4 | Ke | Heurstia | nt | | hr | er, | My | Con | |
| Date/Ti | | Date/Tir | | UU | 15/2019/15 | 2 ZQDate/T | ime: (8:30) | Nov | 8,2019 | Date/Time: | 0V/5 | 1,9 | 15 | |
| Jate/ I I | inc, | ature: | T 17 | | | | | pH Verified [] By: | | | | | | |

APPENDIX D

Site Photographs



Photo 1: Representative view of the finishes observed throughout Room 600.



Photo 2: View of the asbestoscontaining parging cement elbows observed in good condition throughout Room 600.



Photo 3: View of the lead battery packs associated with emergency lighting observed in Room 600.



Photo 4: View of the poor condition lead floor paint (Grey) observed throughout Room 600.



Photo 5: View of the water damaged drywall observed in Room 600.



Photo 6: Representative view of the common area finishes observed throughout the 5th floor.



Photo 7:

Representative view of Room 523, with asbestos-containing vinyl floor tiles (12"x12" – Brown w/ Brown Stripes).



Photo 8:

View of the asbestoscontaining vinyl floor tiles (12"x12" – Brown w/ Brown Stripes) observed in good condition in Room 523.



Photo 9:

View of the asbestos containing ceiling tiles - 2'x4' Pinholes w/ Triangular Fissures observed in fair condition in Room 523.



Photo 10: View of the poor condition lead floor paint (Grey) observed throughout Room 525E.



Photo 11: View of the water damaged drywall observed in Room 528.



Photo 12: Representative view of the water fountains observed throughout the subject building, containing ODSs.



Photo 13: View of the concrete ceilings observed throughout the subject building.



Photo 14: Representative view of the common area finishes observed throughout the 4th floor.



Photo 15: View of the asbestos containing ceiling tiles - 2'x4' Pinholes w/ Triangular Fissures observed in good condition in Room 424.



Photo 16: Representative view of the common area finishes observed throughout Room 416.



Photo 17: View of the nonasbestos containing caulking (Grey) observed in 371A.



Photo 18: View of the nonasbestos fiberglass pipe straight insulation observed in Room 348.



Photo 19: Representative view of the common area finishes observed throughout Room 332.



Photo 20: View of the asbestos containing ceiling tiles - 2'x4' Pinholes w/ Triangular Fissures observed in good condition in Room 306.



Photo 21: View of the asbestos containing ceiling tiles - 2'x4' Pinholes w/ Triangular Fissures observed in good condition in Room 327.



Photo 22: View of the nonasbestos VFT (12"x12" - Pink w/ Multicolour Streaks) observed in Room 223.



Photo 23: View of the asbestoscontaining vinyl floor tiles (12"x12" – Brown w/ Brown Stripes) observed in good condition in Room 224.



Photo 24: Representative view of the common area finishes observed throughout the Ground Floor entrance.



Photo 25: Representative view of the common area finishes observed throughout Room 147B.



Photo 26: Representative view of the ceiling space in Room 147B.



Photo 27: View of the above ground storage tank (AST) containing diesel, observed in good condition in Room 142C.

APPENDIX E

Asbestos-Containing Materials Checklists

| | Appendix L. Addested Containing Muterials Circumst | | | | | | | | | | |
|-------------|--|---|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|-----------------------|----------|
| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | unit | Recommended Action | Comments |
| 1 | Room 100H | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 1900 | SF | Manage in Place | |
| 1 | Room 109 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 140 | SF | Manage in Place | |
| 1 | Room 109A | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 140 | SF | Manage in Place | |
| 1 | Room 110 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 140 | SF | Manage in Place | |
| 1 | Room 111 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 140 | SF | Manage in Place | |
| 1 | Room 112 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 430 | SF | Manage in Place | |
| 1 | Room 116 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 200 | SF | Manage in Place | |
| 1 | Room 120 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 1 | Room 122 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 306 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 307 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |

| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | Unit | Recommended Action | Comments |
|-------------|----------|---|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|-----------------------|----------|
| 3 | Room 309 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 323 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | ı | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 325 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 327 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 329 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | ı | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 331 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 333 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 334 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 3 | Room 338 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 4 | Room 407 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 260 | SF | Manage in Place | |
| 4 | Room 408 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 150 | SF | Manage in Place | |

| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | Unit | Recommended Action | Comments |
|-------------|-----------|---|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|-----------------------|----------|
| 4 | Room 409 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 80 | SF | Manage in Place | |
| 4 | Room 411 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | ı | Good Condition | Easy | Low | 85 | SF | Manage in Place | |
| 4 | Room 414A | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | | SF | Manage in Place | |
| 4 | Room 414B | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 90 | SF | Manage in Place | |
| 4 | Room 414C | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 95 | SF | Manage in Place | |
| 4 | Room 422 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 140 | SF | Manage in Place | |
| 4 | Room 423 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Fair Condition | Easy | Low | 2 | С | Manage in Place | |
| 4 | Room 423 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 140 | SF | Manage in Place | |
| 4 | Room 424 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 90 | SF | Manage in Place | |
| 4 | Room 426 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 90 | SF | Manage in Place | |
| 4 | Room 431A | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 100 | SF | Manage in Place | |

| 1111 | Appendix L. Assessed Containing Materials Circuist | | | | | | | | | | | |
|-------------|--|--|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|---|----------|--|
| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | Unit | Recommended Action | Comments | |
| 4 | Room 432 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 1100 | SF | Manage in Place | | |
| 4 | Room 432A | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 180 | SF | Manage in Place | | |
| 5 | Room 523 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Good Condition | Easy | Low | 1000 | SF | Manage in Place | | |
| 5 | Room 523 | Ceiling Tiles - 2'x4' Pinholes w/ Triangular Fissures | Confirmed | - | Fair Condition | Easy | Low | 2 | С | Monitor Condition of Material. Consider Removal or Repair. | | |
| 1 | Throughout Level | Fire Doors | Suspected | - | Good Condition | Easy | Low | - | - | Manage in Place | | |
| 2 | Throughout Level | Fire Doors | Suspected | - | Good Condition | Easy | Low | - | - | Manage in Place | | |
| 3 | Throughout Level | Fire Doors | Suspected | - | Good Condition | Easy | Low | - | - | Manage in Place | | |
| 4 | Throughout Level | Fire Doors | Suspected | - | Good Condition | Easy | Low | 1 | 1 | Manage in Place | | |
| 5 | Throughout Level | Fire Doors | Suspected | - | Good Condition | Easy | Low | - | - | Manage in Place | | |
| 6 | Throughout Level | Fire Doors | Suspected | - | Good Condition | Easy | Low | - | - | Manage in Place | | |
| 1 | Room 100L | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 600 | SF | Manage in Place | | |
| 1 | Room 139 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 100 | SF | Manage in Place | | |
| 2 | Room 224 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 1500 | SF | Manage in Place | | |

| | Appendix E - Asbestos Contanning Materiais Checkrist | | | | | | | | | | |
|-------------|--|--|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|-----------------------|----------|
| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | Unit | Recommended Action | Comments |
| 2 | Room 228 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 2 | Room 236 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 400 | SF | Manage in Place | |
| 2 | Room 239 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 40 | SF | Manage in Place | |
| 2 | Room 240 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 220 | SF | Manage in Place | |
| 4 | Room 400 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 720 | SF | Manage in Place | |
| 4 | Room 407 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 260 | SF | Manage in Place | |
| 4 | Room 407C | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 20 | SF | Manage in Place | |
| 4 | Room 408 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 320 | SF | Manage in Place | |
| 4 | Room 409 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 80 | SF | Manage in Place | |
| 4 | Room 410 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 80 | SF | Manage in Place | |
| 4 | Room 411 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 85 | SF | Manage in Place | |

| 1-1 | Idix E Asbestos co | | | | | | | | | | |
|-------------|--------------------|--|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|-----------------------|---------------------------------|
| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | Unit | Recommended Action | Comments |
| 4 | Room 412 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 85 | SF | Manage in Place | |
| 4 | Room 419 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 3300 | SF | Manage in Place | |
| 4 | Room 419B | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 150 | SF | Manage in Place | |
| 4 | Room 432 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 1100 | SF | Manage in Place | |
| 5 | Room 514 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 100 | SF | Manage in Place | |
| 5 | Room 517 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 120 | SF | Manage in Place | |
| 5 | Room 518 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 250 | SF | Manage in Place | |
| 5 | Room 523 | Vinyl Floor Tiles (12"x12" – Brown w/ Brown Stripes) | Confirmed | Non-Friable | Good Condition | Easy | Low | 6000 | SF | Manage in Place | |
| 1 | Room 142 | Mechanical Pipe/Elbow Parging Cement | Confirmed | Friable | Good Condition | Moderate | Low | | С | Manage in Place | |
| 6 | Room 600 | Mechanical Pipe/Elbow Parging Cement | Confirmed | Friable | Good Condition | Moderate | Low | | С | Manage in Place | |
| 1 | Throughout Level | Wall Plaster | Wall Plaster | Friable | Varies | Moderate | Low | - | - | Manage in Place | *May be enclosed behind drywall |
| 2 | Throughout Level | Wall Plaster | Wall Plaster | Friable | Varies | Moderate | Low | - | - | Manage in Place | *May be enclosed behind drywall |

| Floor/Level | Location | Type of ACM | Asbestos Confirmed/ Suspected | Friable/Non-Friable | Damaged/ Deteriorated | Accessibility | Level of Work Near Material | Approximate Quantity | Unit | Recommended Action | Comments |
|-------------|------------------|--------------|-------------------------------------|---------------------|--------------------------|---------------|--------------------------------|-------------------------|------|-----------------------|---------------------------------|
| 3 | Throughout Level | Wall Plaster | Wall Plaster | Friable | Varies | Moderate | Low | - | - | Manage in Place | *May be enclosed behind drywall |
| 4 | Throughout Level | Wall Plaster | Wall Plaster | Friable | Varies | Moderate | Low | - | - | Manage in Place | *May be enclosed behind drywall |
| 5 | Throughout Level | Wall Plaster | Wall Plaster | Friable | Varies | Moderate | Low | - | - | Manage in Place | *May be enclosed behind drywall |

APPENDIX F

Hazardous Containing Materials Checklists

| Appe | TIGIX I TIGE | irdous Containing ivi | ateriais enec | | | | | | | | |
|-------------|---------------------|-------------------------------------|---------------------------|--------|----------------|--------------|-------------------------|------|-------------------------|--|----------|
| Floor/Level | Location | Туре | Component | Colour | Condition | Manufacturer | Approximate Quantity | Unit | Suspected/ Confirmed | Recommended Action | Comments |
| 1 | Room 100C | Mould/ Water Damage | Ceiling Tiles | White | Poor Condition | N/A | 1 | С | Confirmed | Should be replaced as part of regular maintenance. | |
| 1 | Room 102 | Mould/ Water Damage | Ceiling Tiles | White | Poor Condition | N/A | 3 | С | Confirmed | Should be replaced as part of regular maintenance. | |
| 1 | Room 146 | Mould/ Water Damage | Ceiling Tiles | White | Poor Condition | N/A | 2 | С | Confirmed | Should be replaced as part of regular maintenance. | |
| 1 | Room 100L | Ozone Depleting Substances (ODS) | Thermostat | N/A | Good Condition | Elkay | 1 | С | Confirmed | Manage in Place | R134a |
| 1 | Room 107 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Kenmore | 1 | С | Confirmed | Manage in Place | R134a |
| 1 | Room 112 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Danby | 1 | С | Confirmed | Manage in Place | R134a |
| 1 | Room 116 | Ozone Depleting Substances (ODS) | Water Fountain | N/A | Good Condition | Kenmore | 1 | С | Confirmed | Manage in Place | R134a |
| 1 | Room 116 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Salton | 1 | С | Confirmed | Manage in Place | R134a |
| 1 | Room 140 | Lead | Floor Paint | Grey | Poor Condition | N/A | 60 | SF | Confirmed | Paint must be removed and/or stabilized following Class 1/2 or Type 1/2 Lead Procedures as per MOL and EACC Guidelines. | |
| 1 | Room 142 | USTs/ASTs | Diesel Tank | N/A | Good Condition | N/A | 1 | С | Confirmed | Manage in Place | |
| 1 | Throughout Level | Lead | Door Paint | Grey | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 1 | Throughout Level | Lead | Wall Paint | White | Good Condition | N/A | ı | ı | Confirmed | Manage in Place | |
| 1 | Throughout Level | Lead | Railing Paint | Brown | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 1 | Throughout Level | Lead | Ceiling Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 1 | Throughout Level | Lead | Wall Paint | Beige | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 1 | Throughout Level | Mercury | Railing Paint | N/A | Good Condition | GE | - | - | Confirmed | Manage in Place | |
| 1 | Throughout Level | Silica | Concrete, Mortar, Etc. | N/A | Good Condition | N/A | - | - | Confirmed | Manage in Place | |

| | | _ | | | | | | | | | |
|-------------|---------------------|-------------------------------------|----------------------------|--------|----------------|--------------|-------------------------|------|-------------------------|--|------------------------|
| Floor/Level | Location | Туре | Component | Colour | Condition | Manufacturer | Approximate Quantity | Unit | Suspected/ Confirmed | Recommended Action | Comments |
| 2 | Room 210 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Danby | 1 | С | Confirmed | Manage in Place | R134a |
| 2 | Room 229 | Ozone Depleting Substances (ODS) | Refrigerator | N/A | Good Condition | Electrolux | 1 | С | Confirmed | Manage in Place | R134a |
| 2 | Throughout Level | Lead | Door Paint | Grey | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 2 | Throughout Level | Lead | Wall Paint | White | Good Condition | N/A | ı | - | Confirmed | Manage in Place | |
| 2 | Throughout Level | Lead | Railing Paint | Brown | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 2 | Throughout Level | Mercury | Fluorescent Light Tubes | N/A | Good Condition | GE | - | - | Confirmed | Manage in Place | |
| 2 | Throughout Level | Silica | Concrete, Mortar, Etc. | N/A | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 2 | Throughout Level | Lead | Ceiling Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 2 | Throughout Level | Lead | Wall Paint | Beige | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 3 | Room 301C | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Gold Star | 1 | С | Confirmed | Manage in Place | R134a |
| 3 | Room 324 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | LG | 1 | С | Confirmed | Manage in Place | Unknown Refrigerant |
| 3 | Room 335A | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Danby | 1 | С | Confirmed | Manage in Place | R134a |
| 3 | Room 387 | Mould/ Water Damage | Ceiling Tiles | White | Poor Condition | N/A | 1 | С | Confirmed | Should be replaced as part of regular maintenance. | |
| 3 | Throughout Level | Lead | Door Paint | Grey | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 3 | Throughout Level | Lead | Wall Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 3 | Throughout Level | Lead | Railing Paint | Brown | Good Condition | N/A | í | - | Confirmed | Manage in Place | |
| 3 | Throughout Level | Lead | Ceiling Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |

| 111111 | ppendix F - nazardous Containing Materials Checkrist | | | | | | | | | | |
|-------------|--|-------------------------------------|----------------------------|--------|----------------|----------------------------|-------------------------|------|-------------------------|---|----------|
| Floor/Level | Location | Туре | Component | Colour | Condition | Manufacturer | Approximate Quantity | Unit | Suspected/ Confirmed | Recommended Action | Comments |
| 3 | Throughout Level | Lead | Wall Paint | Beige | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 3 | Throughout Level | Mercury | Fluorescent Light Tubes | N/A | Good Condition | GE | - | - | Confirmed | Manage in Place | |
| 3 | Throughout Level | Silica | Concrete, Mortar, Etc. | N/A | Good Condition | N/A | - | 1 | Confirmed | Manage in Place | |
| 4 | Room 406 | Lead | Floor Paint | Grey | Poor Condition | N/A | 50 | SF | Confirmed | Paint must be removed and/or stabilized following Class 1/2 or Type 1/2 Lead Procedures as per MOL and EACC Guidelines. | |
| 4 | Throughout Level | Lead | Door Paint | Grey | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 4 | Throughout Level | Lead | Wall Paint | White | Good Condition | N/A | - | 1 | Confirmed | Manage in Place | |
| 4 | Throughout Level | Lead | Railing Paint | Brown | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 4 | Throughout Level | Lead | Ceiling Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 4 | Throughout Level | Lead | Wall Paint | Beige | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 4 | Throughout Level | Mercury | Fluorescent Light Tubes | N/A | Good Condition | GE | = | , | Confirmed | Manage in Place | |
| 4 | Room 407 | Ozone Depleting Substances (ODS) | Refrigerator | N/A | Good Condition | White- Westinghou se | 1 | С | Confirmed | Manage in Place | R134a |
| 5 | Room 509 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Sun Beam | 1 | С | Confirmed | Manage in Place | R134a |
| 5 | Room 513 | Mould/ Water Damage | Ceiling Tiles | White | Poor Condition | N/A | 1 | С | Confirmed | Should be replaced as part of regular maintenance. | |
| 5 | Room 561E | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Danby | 1 | С | Confirmed | Manage in Place | R134a |
| 5 | Room 562 | Mould/ Water Damage | Ceiling Tiles | White | Poor Condition | N/A | 2 | С | Confirmed | Should be replaced as part of regular maintenance. | |



| Floor/Level | Location | Туре | Component | Colour | Condition | Manufacturer | Approximate Quantity | Unit | Suspected/ Confirmed | Recommended Action | Comments |
|-------------|---------------------|-------------------------------------|----------------------------|--------|----------------|--------------|-------------------------|------|-------------------------|--|---|
| 5 | Room 545 | Mould/ Water Damage | Drywall | N/A | Poor Condition | N/A | <10 | SF | Confirmed | Must be removed following Level I mould remediation procedures, as per EACC Guidelines | |
| 5 | Room 504 | Ozone Depleting Substances (ODS) | Mini Fridge | N/A | Good Condition | Sun Beam | 1 | С | Confirmed | Manage in Place | R600a |
| 5 | Room 525E | Lead | Floor Paint | Grey | Poor Condition | N/A | 60 | SF | Confirmed | Paint must be removed and/or stabilized following Class 1/2 or Type 1/2 Lead Procedures as per MOL and EACC Guidelines. | |
| 5 | Room 545 | Lead | Ceiling Paint | White | Poor Condition | N/A | 5 | SF | Confirmed | Paint must be removed and/or stabilized following Class 1/2 or Type 1/2 Lead Procedures as per MOL and EACC Guidelines. | |
| 5 | Throughout Level | Lead | Door Paint | Grey | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 5 | Throughout Level | Lead | Wall Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 5 | Throughout Level | Lead | Railing Paint | Brown | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 5 | Throughout Level | Lead | Ceiling Paint | White | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 5 | Throughout Level | Mercury | Fluorescent Light Tubes | N/A | Good Condition | GE | - | - | Confirmed | Manage in Place | |
| 5 | Throughout Level | Lead | Wall Paint | Beige | Good Condition | N/A | - | - | Confirmed | Manage in Place | |
| 6 | Room 600 | Mould/ Water Damage | Drywall | N/A | Poor Condition | N/A | 5 | SF | Confirmed | Must be removed following Level I mould remediation procedures, as per EACC Guidelines | *Lead paint must be removed and/or stabilized as per MOL and EACC Guidelines. |
| 6 | Room 600 | Lead | Floor Paint | Grey | Poor Condition | N/A | 4,520 | SF | Confirmed | Paint must be removed and/or stabilized following Class 1/2 or Type 1/2 Lead Procedures as per MOL and EACC Guidelines. | |

| Floor/Level | Location | Туре | Component | Colour | Condition | Manufacturer | Approximate Quantity | Unit | Suspected/ Confirmed | Recommended Action | Comments |
|-------------|---------------------|---------|----------------------------|-----------------|----------------|--------------|-------------------------|------|-------------------------|-----------------------|----------|
| 6 | Room 600 | Lead | Battery Pack | Battery Pack | Good Condition | Emergi-Lite | 1 | С | Confirmed | Manage in Place | |
| 6 | Room 600 | Mercury | Thermostat | N/A | Good Condition | Honeywell | 1 | С | Confirmed | Manage in Place | |
| 6 | Throughout Level | Mercury | Fluorescent Light Tubes | N/A | Good Condition | GE | - | - | Confirmed | Manage in Place | |



APPENDIX G

Site Sampling & Location Plans

