REPORT

Pre-Renovation Designated Substances Review

Maison de la Francophonie d'Ottawa (Former Grant School), 2720 Richmond Road, Ottawa, Ontario

Submitted to:

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Project No.: 1791616 (JLR Project No. 27672-000.1)

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Distribution List

1 e-copy: J.L. Richards & Associates Limited (JLR)

EXECUTIVE SUMMARY

The Executive Summary highlights key points from the report only. For complete information and findings, as well as the limitations, the reader should examine the complete report.

Golder Associates Ltd. (Golder) was retained by J.L. Richards & Associates Limited (JLR) to provide a Pre-Renovation Designated Substances Review (DSR) for the proposed Maison de la Francophonie d'Ottawa (MFO) building renovation of former Grant School, located at 2720 Richmond Road, in Ottawa, Ontario (the "Site").

The focus of the DSS was the eleven designated substances, as defined in Ontario Regulation 490/09*; Designated Substances (O. Reg. 490/09)* made under the Ontario *Occupational Health and Safety Act, R.S.O. 1990 Chapter O.1,* as amended *(OH&S Act)*. Substances surveyed included acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica and vinyl chloride.

Based on the information provided by JLR, the existing former Grant School building structure will be renovated to accommodate the MFO. Prior to the Site reviews, Golder reviewed available designated substances records and drawings, which were referenced for the current DSR, including but not limited to, the following pre-renovation designated substances report, which is included in Appendix F, along with a number of subsequent limited sampling and laboratory reports that were provided to and reviewed by Golder as part of the scope of work (section 3.0):

- "Centre Multiservices Francophone de l'Ouest d'Ottawa, Designated Substances Survey, 2720 Richmond Road, Ottawa, Ontario", prepared by EHS Partnerships Ltd., dated April 2012 (EHS Project No.: 04-0068-12-001)

The DSR was conducted over several Site visits, which occurred between February 1 and 14, 2018. A thorough investigation of the Site, including intrusive assessment and sampling, was conducted to identify and document the potential presence, quantity, and condition of designated substances. This report must be provided to contractors prior to conducting renovation or demolition work at the Site.

Asbestos-Containing Materials

Based on a review of previous reports, the current Site reviews and subsequent analytical results, the following materials were identified to be asbestos-containing materials (ACMs) and are currently present at the Site. Any repair, removal, or disturbance of these materials must be conducted in accordance with Ontario Regulation 278/05: Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations, as amended (O. Reg. 278/05) and applicable specification sections:

- Black tar present on walls in Electrical Room 005 (samples 1A to 1C) containing 25% Chrysotile asbestos (newly identified).
- Greg parging material present around chimney pipe in Mechanical Room 002 (samples 2A to 2C) containing 65% Chrysotile asbestos (newly identified).
- Exterior white caulking present around South West Exterior Stage Door (samples 8A to 8C) containing 4% Chrysotile asbestos (newly identified).
- Plaster materials throughout the East Stairwell (samples 9A to 9C, 10A to 10C and 11A to 11C) containing 1 to 4% Chrysotile asbestos (newly identified).

- Cementitious parging material present on select areas of walls within Mechanical Room 002 and Electrical Room 004 (samples 12A to 12C) in the basement containing 1% Chrysotile asbestos (newly identified).
- Plaster layer over concrete surface of Gymnasium ceiling containing 3% Chrysotile asbestos (newly identified).
- Plaster present within proposed Elevator lobby 210 location on exterior east side of building could not be accessed but is assumed to be asbestos-containing as all other plaster at the Site is asbestos-containing (newly identified).
- Bell and spigot joint packing materials present within wall cavities where existing air ducts are present and in the proposed Community Centre 140 could not be sampled but are assumed to be asbestos-containing.
- Pipe straight insulation present inside west air duct wall cavity running between D144C, 215 and 318A (samples PS-1-A – PS-1-C) and potentially other locations at the Site containing 90% Chrysotile asbestos (previously identified).
- Elbow parging present inside west air duct wall cavity running between D144C, 215 and 318A (samples PR-1-A – PR-1-C) and potentially other locations at the Site containing 65% Chrysotile asbestos (previously identified).
- Plaster present throughout Ground, Second and Third Floors (samples PL-1-A – PL-1-C) containing 2% Chrysotile asbestos (previously identified).

Please note, the identified ACMs may exist in other areas of the Site. All materials found to be in likeness to identified ACMs must be assumed to be ACMs unless otherwise confirmed by laboratory analyses. Any contractors bidding on asbestos abatement work at the Site must satisfy themselves of the quantities of ACMs based on Site walkthrough observations and measurements. Sample Location Plans (Figures 1 through 4) included in Appendix E show approximate locations and extents of identified ACMs and may not be fully representative of Site conditions and concealed materials. The bidding contractors must satisfy themselves of the locations and extents of ACMs to be removed.

Lead-Containing Materials

Based on the analytical results, the lead concentrations in the following paints were found to be above the laboratory reporting detection limit (RDL), and therefore, considered to be lead-containing:

- White wall paint present on walls from the basement to the fourth floor (sample PS-2)
- Grey floor paint present within the basement and on the east and west stairs (sample LBP-G)
- Yellow paint present on brick in various areas from the basement to the third floor (sample LBP-J)

Lead may also be present in solder on pipe joints at the Site. In addition, if cable wrapping, ceramic glazes, batteries, lead sheeting, flashing or brick ties are discovered during renovation, repair, construction or demolition activities conducted at the Site, these materials should be treated as lead-containing until tested and proven otherwise.

Mercury

The fluorescent light tubes/bulbs observed to be present throughout the attic space and potentially other locations at the Site are suspected to contain mercury vapour. If fluorescent light tubes and/or bulbs are to be removed during renovation, demolition or construction activities, they should remain unbroken and kept separate from all other waste to prevent damage prior to disposal. If mercury vapours are not present in fluorescent light tubes and bulbs, the Ontario Ministry of the Environment and Climate Change (MOECC) does not consider them a hazardous waste product. However, if it is not possible to confirm the absence or presence of mercury vapours, they must be treated as mercury waste. Mercury-containing thermostats were not observed within the designated project work areas at the Site.

Silica-Containing Materials

Presumed silica-containing materials (SCMs) within the designated project work areas at the Site include plaster materials, concrete, brick, mortar and other masonry products, along with any other aggregates used to construct the Site which were observed to be in poor to good condition.

Other Designated Substances

No other designated substances, as defined in *O. Reg. 490/09* under the *OH&S Act*, were observed within the project work areas of the Site. If any additional materials are identified and are expected to be impacted by the project that are not otherwise mentioned within this report, Golder should be contacted to provide further evaluation.

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APPENDICES

1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by J.L. Richards & Associates Limited (JLR) to provide a Pre-Renovation Designated Substances Review (DSR) for the proposed Maison de la Francophonie d'Ottawa (MFO) building renovation of former Grant School, located at 2720 Richmond Road, in Ottawa, Ontario (the "Site").

Under Section 30 of the Ontario *Occupational Health and Safety Act*, Revised Statutes of Ontario 1990, as amended (the *OH&S Act*), 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. The DSR was requested to fulfill this requirement.

The focus of the DSR was the eleven designated substances, as defined in Ontario Regulation 490/09 *Designated Substances* (*O. Reg. 490/09*) made under the *OH&S Act.* Substances surveyed included acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica and vinyl chloride.

2.0 PROJECT BACKGROUND

Based on the information provided by JLR, the existing former Grant School building structure will be renovated to accommodate the MFO. Prior to the Site reviews, Golder reviewed available designated substances records and drawings, which were referenced for the current DSR, including but not limited to, the following pre-renovation designated substances report, which is included in Appendix F, along with a number of subsequent limited sampling and laboratory reports that were provided to and reviewed by Golder as part of the scope of work (section 3.0):

- "Centre Multiservices Francophone de l'Ouest d'Ottawa, Designated Substances Survey, 2720 Richmond Road, Ottawa, Ontario", prepared by EHS Partnerships Ltd., dated April 2012 (EHS Project No.: 04-0068-12-001)

3.0 SCOPE OF WORK

Golder's scope of work was limited to the following, as based on communications with JLR:

- Reviewing the historic designated substances reports for the Site included in Appendix F.
- Visually identifying and inventorying previously identified and suspected designated substances not previously identified in the historic reports including but not limited to:
  - Non-friable and friable asbestos-containing materials (ACMs)
  - Lead-containing materials (LCMs), including lead-based paints (LBPs)
  - Mercury-containing materials and equipment
  - Silica-containing materials
- Collecting limited quantities of representative bulk samples of suspected ACMs and suspected LBPs and submitting these samples to an independent accredited laboratory for analysis.
- Preparing an electronic (PDF) copy of a pre-renovation DSR report that incorporates the findings and analytical results of previous reports on remaining designated substances at the Site. The DSR report provides approximate locations, conditions and quantifications of designated substances at the Site.

- Preparing specification sections and associated figures. Figures 1 through 4, which are provided as attachments to the DSR report, delineate the sample locations and the extent of the remaining ACMs at the Site. The following specification sections developed for the removal/disturbance of designated substances are provided under separate cover.
  - Section 02 82 00.01 Type 1 Asbestos Operations – Minimum Precautions
  - Section 02 82 00.02 Type 2 Asbestos Operations – Intermediate Precautions
  - Section 02 82 00.03 Type 3 Asbestos Operations – Maximum Precautions
  - Section 02 82 17.01 Type 1 Silica Operations – Minimum Precautions
  - Section 02 82 17.02 Type 2 Silica Operations – Intermediate Precautions
  - Section 02 83 10 Type 1 Lead Operations – Minimum Precautions
  - Section 02 83 11 Type 2 Lead Operations – Intermediate Precautions
  - Section 02 86 01 Mercury Precautions

All work was be performed by an appropriately qualified and experienced EHS technician under the direction of a Canadian Registered Safety Professional (CRSP) and reviewed by a Certified Industrial Hygienist (CIH), as required.

4.0 REGULATIONS, GUIDELINES AND STANDARDS

Section 30 of the *OH&S Act* requires that, prior to beginning a construction project (including building renovation or demolition); a document summarizing the presence of designated substances must be available to contractors and subcontractors. This report serves that purpose.

A summary of applicable regulations, guidelines and standards are included in Appendix A.

5.0 METHODOLOGY

The Site assessment was completed between February 1 and 14, 2018 by the Golder Ottawa's Environmental Health and Safety (EHS) team, including: Tim Seabert, Project Manager; Kyle Heagle, EHS Technician; and Paul Park, EHS Technician.

Various reports related to the assessment and remediation of designated substances at the Site have been provided by JLR and reviewed by Golder as part of the DSR. Golder conducted a data gap analysis, confirmed previous findings and conducted additional sampling of suspect materials not previously sampled, as required. Golder reports only on the remaining designated substances at the Site, as based on the findings of the current DSR.

Site work was conducted in accordance with standards outlined in the *OH&S Act* and Golder's Site-specific Health and Safety Plan without incident.

A summary of applicable methodologies is included in Appendix B.

6.0 RESULTS AND DISCUSSION

6.1 Asbestos-Containing Materials

A total of 53 samples of suspected ACMs, not previously sampled, were collected at the Site by Golder and submitted for asbestos content analysis representing 18 homogeneous materials, including:

- Black tar on walls (samples 1A to 1C)
- Caulking and parging materials around chimney (samples 2A to 2C);
- Cementitious infill around chimney (samples 3A to 3C);
- Black tar paper between terracotta blocks and bricks (samples 4A to 4C);
- Fibreboard materials (samples 5A to 5C and 6A to 6C);
- Exterior brick mortar (samples 7A to 7C);
- Exterior caulking materials (samples 8A to 8C);
- Stairwell plaster materials, skim and base coats (samples 9A to 9C, 10A to 10C and 11A to 11C);
- Cementitious parging material (samples 12A to 12C);
- Plaster on ceiling (samples 13A to 13C); and,
- Black tar on exterior building surfaces (samples 14A to 14C).

Based on a review of previous reports, the current Site reviews and subsequent analytical results, the following materials were identified to be ACMs and are currently present at the Site. Any repair, removal, or disturbance of these materials must be conducted in accordance with Ontario Regulation 278/05: *Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations*, as amended (*O. Reg. 278/05*) and applicable specification sections:

- Black tar present on walls in Electrical Room 005 (samples 1A to 1C) containing 25% Chrysotile asbestos (newly identified)
- Greg parging material present around chimney pipe in Mechanical Room 002 (samples 2A to 2C) containing 65% Chrysotile asbestos (newly identified)
- Exterior white caulking present around South West Exterior Stage Door (samples 8A to 8C) containing 4% Chrysotile asbestos (newly identified)
- Plaster materials throughout the East Stairwell (samples 9A to 9C, 10A to 10C and 11A to 11C) containing 1 to 4% Chrysotile asbestos (newly identified)
- Cementitious parging material present on select areas of walls within Mechanical Room 002 and Electrical Room 004 (samples 12A to 12C) in the basement containing 1% Chrysotile asbestos (newly identified)
- Plaster layer over concrete surface of Gymnasium ceiling containing 3% Chrysotile asbestos (newly identified)
- Plaster present within proposed Elevator lobby 210 location on exterior east side of building could not be accessed but is assumed to be asbestos-containing as all other plaster at the Site is asbestos-containing (newly identified)

- Bell and spigot joint packing materials present within wall cavities where existing air ducts are present and in the proposed Community Centre 140 could not be sampled but are assumed to be asbestos-containing
- Pipe straight insulation present inside west air duct wall cavity running between D144C, 215 and 318A (samples PS-1-A – PS-1-C) and potentially other locations at the Site containing 90% Chrysotile asbestos (previously identified)
- Elbow parging present inside west air duct wall cavity running between D144C, 215 and 318A (samples PR-1-A – PR-1-C) and potentially other locations at the Site containing 65% Chrysotile asbestos (previously identified)
- Plaster present throughout Ground, Second and Third Floors (samples PL-1-A – PL-1-C) containing 2% Chrysotile asbestos (previously identified)

Analytical laboratory results of all suspected ACM samples collected at the Site by Golder are summarized within Appendix C (Table C.1) and the Laboratory Test Report on the asbestos analysis are included within Appendix D. The sample locations and extent of the remaining ACMs at the Site are illustrated on the Site figures (figures 1 through 4) included in Appendix E. For previous reports on samples and analytical results of suspected ACMs tested at the Site and not listed here, see Appendix F.

Please note, the identified ACMs may exist in other areas of the Site. All materials found to be in likeness to identified ACMs must be assumed to be ACMs unless otherwise confirmed by laboratory analyses. Any contractors bidding on asbestos abatement work at the Site must satisfy themselves of the quantities of ACMs based on Site walkthrough observations and measurements. Sample Location Plans (Figures 1 through 4) included in Appendix E show approximate locations and extents of identified ACMs and may not be fully representative of Site conditions and concealed materials. The bidding contractors must satisfy themselves of the locations and extents of ACMs to be removed.

6.2 Lead-Containing Materials

Based on the analytical results, the lead concentrations in the following paints were found to be above the laboratory reporting detection limit (RDL), and therefore, considered to be lead-containing:

- White wall paint present on walls from the basement to the fourth floor (sample PS-2)
- Grey floor paint present within the basement and on the east and west stairs (sample LBP-G)
- Yellow paint present on brick in various areas from the basement to the third floor (sample LBP-J)

The analytical laboratory results of the suspect LCP samples are summarized within Appendix C (Table C.2) and the Laboratory Test Report on the lead analysis is included within Appendix D. The sample locations are illustrated in the Site Plan found in Appendix E. For previous reports on samples and analytical results of suspected LCPs tested at the Site and not listed here, see Appendix F.

Lead may also be present in solder on pipe joints at the Site. In addition, if cable wrapping, ceramic glazes, batteries, lead sheeting, flashing or brick ties are discovered during renovation, repair, construction or demolition activities conducted at the Site, these materials should be treated as lead-containing until tested and proven otherwise.

6.3 Mercury-Containing Materials

The fluorescent light tubes/bulbs observed to be present throughout the attic space and potentially other locations at the Site are suspected to contain mercury vapour. If fluorescent light tubes and/or bulbs are to be removed during renovation, demolition or construction activities, they should remain unbroken and kept separate from all other waste to prevent damage prior to disposal. If mercury vapours are not present in fluorescent light tubes and bulbs, the Ontario Ministry of the Environment and Climate Change (MOECC) does not consider them a hazardous waste product. However, if it is not possible to confirm the absence or presence of mercury vapours, they must be treated as mercury waste. Mercury-containing thermostats were not observed within the designated project work areas at the Site.

Disposal of materials containing mercury shall be performed in accordance with Ontario Regulation 347; *General – Waste Management* made under the Ontario Environmental Protection Act, R.S.O. 1990, as amended (*O. Reg. 347).*

6.4 Silica-Containing Materials

Presumed silica-containing materials (SCMs) within the designated project work areas at the Site include plaster materials, concrete, brick, mortar and other masonry products, along with any other aggregates used to construct the Site which were observed to be in poor to good condition.

Disturbance to the SCMs during this project may cause worker exposure to be greater than the Ontario Exposure Limit Time-Weighted Average (OEL-TWA). Disturbance of these materials should be conducted in accordance with *O. Reg. 490/09* under the *OH&S Act* and the MOL silica guideline; *Silica on Construction Projects* updated in April 2011 (MOL Silica Guideline).

6.5 Other Designated Substances

No other designated substances, as defined in *O. Reg. 490/09* under the *OH&S Act*, were observed within the project work areas of the Site. If any additional materials are identified and are expected to be impacted by the project that are not otherwise mentioned within this report, Golder should be contacted to provide further evaluation.

7.0 RECOMMENDATIONS

This report was prepared to fulfil the duty of the project owner's requirement under Section 30(1) of the *OH&S Act*, and the requirements of Section 10 of *O. Reg. 278/05*. This report must be provided to contractors prior to conducting demolition or renovation work at the Site.

Based on the information provided by JLR, it is understood that there will be partial removal of identified designated substances at the Site and the bidding contractors will be responsible to coordinate the project specification sections and drawings with the DSR report to account for any impacts to designated substances at the Site. Any disturbance to the designated substances within the project area(s) of the Site must be carried out in accordance with applicable regulations and the following project specification sections:

Asbestos-Containing Materials

- 02 82 00.01 Type 1 Asbestos Abatement – Minimum Precautions
- 02 82 00.02 Type 2 Asbestos Abatement – Intermediate Precautions
- 02 82 00.03 Type 3 Asbestos Abatement – Maximum Precautions

Lead-Containing Materials

- 02 83 10 Type 1 Lead Operations – Minimum Precautions
- 02 83 11 Type 2 Lead Operations – Intermediate Precautions

Mercury-Containing Materials

- 02 86 01 Mercury Precautions

Silica-Containing Materials

- 02 82 17.01 Type 1 Silica Operations – Minimum Precautions
- 02 82 17.02 Type 2 Silica Operations – Intermediate Precautions

7.1 Asbestos-Containing Materials

ACMs must be disturbed and/or removed in accordance with *O. Reg. 278/05*, made under the *OH&S Act*, and the applicable project specification sections prior to any disturbance caused by the repair, renovation or demolition operations. ACMs must be removed and disposed of in accordance with *O. Reg. 278/05*, *O. Reg. 347* and the project specification sections pertaining to ACMs listed in Section 7.0.

7.2 Lead-Containing Materials

Based on the findings of the DSR, the following recommendations are made with respect to suspect LCMs at the Site:

1) If materials that may contain lead are identified during renovation and/or demolition activities (e.g., solder on pipe joints, cable wrapping, ceramic glazes, or batteries), they must be treated as lead-containing until tested and proven otherwise.

2) Should LCMs be removed from the Site, they are to be recycled or disposed of at an approved landfill. If LCMs are to be disposed of in a landfill, waste characterization should be performed including, in the case of LCPs, analysis of both the painted surface and the underlying substrate for lead leachate, using the Toxicity Characteristic Leaching Procedure (TCLP) as specified in O. Reg. 347. Based on the results of the TCLP

analysis, removed LCMs would either be considered as construction waste or leachate toxic waste. All leachate toxic materials would require segregation and final disposal in a landfill licensed to accept leachate toxic waste by the MOECC.

3) Demolition, including any disturbance, of LCMs must be conducted in accordance with the OH&S Act, applicable regulations, the MOL lead guideline; Lead on Construction Projects updated in April 2011 (MOL Lead Guideline) and project specification sections pertaining to LCMs listed in Section 7.0.

7.3 Mercury-Containing Materials

The fluorescent light tubes/bulbs observed to be present throughout the attic space and potentially other locations at the Site are suspected to contain mercury vapour. Mercury-containing thermostats were not observed within the designated project work areas at the Site. Disposal of materials containing mercury shall be performed in accordance with *O. Reg. 347.*

Any removal and/or disturbance to the mercury-containing materials within the project area(s) of the Site must be carried out in accordance with applicable regulations and guidelines and the project specification sections pertaining to mercury-containing materials listed in Section 7.0.

7.4 Silica-Containing Materials

O. Reg. 490/09, Section 19, specifies that an employer shall carry out an assessment of the exposure or likelihood of exposure of a worker to a designated substance in the workplace and record it in writing. Based on the condition of SCMs at the time of the assessment and current use of the Site, the likelihood of worker exposure greater than the OEL-TWA is very minimal and no further worker exposure assessment is recommended at this time.

If conditions change or activities are scheduled where exposure to silica becomes more likely, an additional worker exposure assessment must be completed at that time. Precautions against silica exposure are only required for building materials in poor condition or during disturbance of these materials including, but not limited to, renovation or demolition activities. Demolition, including any disturbance, of these materials must be conducted in accordance with the OH&S Act, applicable regulations, the MOL Silica Guideline and project specification sections pertaining to SCMs listed in Section 7.0.

8.0 LIMITATIONS

This report was prepared for the exclusive use of the MFO and JLR. This report is based on samples and information collected during the Site visits conducted by Golder Associates Ltd., between February 1 and 14, 2018, and is based solely on Site conditions encountered at the time of the Site visits, as described in this report.

The conclusions and recommendations contained in this report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations.

The data and findings presented in this report are valid as of the date of the investigation. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

The findings, observations and conclusions expressed by Golder Associates Ltd. in this report are not, and should not be considered, an opinion concerning compliance of any past or present owner or operator of the building with any federal, provincial or local laws or regulations.

Although efforts were made to expose and identify all potential designated substances within the specified areas at the Site, there is a possibility that additional designated substances may be present in concealed areas or other areas not included as part of this DSR. The DSR required destructive sampling to be performed and all samples were collected with the approval of the Site Representative.

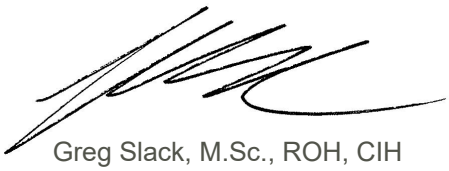
As such, if additional and suspected designated substances are encountered during renovation and/or demolition activities that are not included in this report, it is recommended that a further investigation be conducted at that time. As such, in the case that suspected ACMs or LCMs cannot be tested, they must be treated as ACMs or LCMs, respectively, until proven otherwise. Should building materials encountered during any renovation and/or demolition activities be found to contain asbestos, these materials must be managed in accordance with *O. Reg. 278/05.*

Signature Page

We trust that this report meets your requirements and current needs. If you have any questions regarding the content of this technical memorandum or require any further information, please do not hesitate to contact the undersigned at (613) 592-9600. Thank you for the opportunity to be of service. We look forward to working with you again

Sincerely,

GOLDER ASSOCIATES LTD.



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TAS/GJS/ca
https://golderassociates.sharepoint.com/sites/21338g/deliverables/dsr/rpt01_1791616_mfo_grant school_pre-reno dsr_april2018.docx

APPENDIX A

Regulations and Guidelines

REGULATIONS AND GUIDELINES

OH&S Act, R.S.O. 1990, c.0.1

The Ontario *Occupational Health and Safety Act* (*OH&S Act)*, outlines designated substances that may be present at the Site. The designated substances referred to under Section 30 of the *OH&S Act* are regulated under two regulations, which specify occupational exposure limits and any required assessment and control programs. Section 30 of the *OH&S Act* requires that, prior to beginning a construction project (including site renovation or demolition) a document summarizing the presence of these designated substances must be available to contractors and subcontractors requesting tenders. This report serves that purpose, however; it does not exclude the requirement for project specifications and scaled drawings outlining abatement areas, quantities and specific procedures typically required in a demolition tender contract.

Asbestos

Ontario Regulation 278/05 entitled *Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations*, as amended (*O. Reg. 278/05)*, made under the *OH&S Act,* outlines specific procedures for the identification of ACMs in buildings and on construction sites and protocols for their removal. Under this regulation, if ACMs are suspected to be present or ought reasonably to be suspected, locations of the materials must be documented and re-inspected at reasonable intervals to determine their condition.

Prior to a re-development, renovation or demolition project, a document summarizing the presence of all ACMs must be available to contractors and subcontractors requested to tender. ACMs in good condition can remain at the Site in accordance with the details outlined for ongoing asbestos management. All ACMs must be removed or managed appropriately prior to any disturbance caused by the re-development, renovation or demolition process in accordance with provincial regulations.

R.R.O. 1990, Regulation 347 entitled *General – Waste Management* as amended (O. *Reg. 347*), made under the Ontario *Environmental Protection Act*, R.S.O. 1990, Chapter E.19, as amended sets out requirements for general waste management including ACM. The regulation defines "asbestos waste" as “solid or liquid waste that results from the removal of asbestos-containing construction or insulation materials or from the manufacture of asbestos-containing products and contains asbestos in more than a trivial amount or proportion”. This regulation requires the disposal of asbestos waste in a double sealed container, properly labelled and free of cuts, tears or punctures. The waste must be disposed of in a licensed waste facility which has been properly notified of the presence of asbestos waste.

Lead

Lead is regulated under Ontario Regulation 490/09 entitled *Designated Substances* (*O. Reg. 490/09)*, as amended and made under the *OH&S Act*. This regulation prescribes occupational exposure limits (OELs) and other requirements surrounding engineering controls, work practices, hygiene practices and facilities for workers who may become exposed to lead.

The Occupational Health and Safety Branch of the Ontario Ministry of Labour (MOL) published their Guideline entitled *Lead on Construction Projects*, (“MOL Lead Guideline”, revised April 2011) to raise the awareness of employers and workers in the construction industry of the hazards posed by lead in construction and the measures and procedures that should be taken to control those hazards. Currently, this document represents due diligence practice for lead exposure control on construction projects, as enforced by the MOL under the general duty clause 25(2)(h) of the *OH&S Act*. As such, it is referenced within the report, where appropriate, to provide guidance on appropriate handling and exposure control procedures when dealing with lead.

Golder understands the MOL currently does not include criteria for classification LCP, and that, as such, the MOL considers the presence of any detectable concentration of lead in a paint or coating as a LCP. Therefore, in these circumstances, Golder considers all paints with any detectable concentration of lead to be a LCP.

Disposal of lead must be conducted in accordance with the requirements of O. *Reg. 347.*

Mercury

Mercury is regulated under *O. Reg. 490/09*. This regulation sets out occupational exposure standards and prescriptive requirements surrounding engineering controls, work practices and hygiene practices and facilities for workers who may become exposed to mercury.

Disposal of materials containing mercury shall be done in accordance with O. *Reg. 347.*

Silica

Silica is regulated under *O. Reg. 490/09*. This Regulation sets out occupational exposure standards and prescriptive requirements surrounding engineering controls, work practices and hygiene practices and facilities for workers who may become exposed to crystalline silica, namely cristobalite, quartz and tripoli. As set out in *O. Reg. 490/09*, an employer shall take all reasonable precautions to prevent worker exposure to silica.

Procedures for workers involved in construction/demolition activities occurring on a site where silica is disturbed are outlined in the MOL Guideline entitled *Silica on Construction Projects*, ("MOL Silica Guideline", revised April 2011).

The MOL Silica Guideline is referenced within the report, where appropriate, to provide guidance on recommended handling and exposure control procedures when dealing with silica on construction projects. The MOL Silica Guideline is enforceable as a reasonable precaution under the general duty clause 25(2)(h) of the *OH&S Act.*

Other Designated Substances

In addition to the four designated substances that have a high probability of being present at the Building, which are discussed in detail in the previous sections, the following seven designated substances as defined in the regulations under the *OH&S Act* were included in this survey: acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates and vinyl chloride. Based on Golder's professional experience, none of these substances were expected to be present and, as such, no specific observations or sampling of materials potentially containing these substances were undertaken.

APPENDIX B

Methodology

METHODOLOGY

Suspect Asbestos-Containing Materials

Effective November 1, 2005, *O. Reg. 278/05*, stipulates that a minimum number of samples per "homogeneous material" (a material that is uniform in colour and texture) are required to verify the presence or absence of asbestos.

The number of samples of each "homogeneous material" was collected in accordance with Bulk Material Samples of *O. Reg. 278/05* summarized in Table B.1 below.

Table 1: B.1: Bulk Samples - Asbestos

Type of Materials	Size of Area of Homogeneous Materials	Minimum Number of Samples
Surfacing material, including without limitation material that is applied to surfaces by spraying, by troweling or otherwise. Examples include acoustical plaster on ceilings and fireproofing materials on structural members	Less than 90 m^2 (969 ft^2)	3
	90 or more m^2, but less than 450 m^2 (4,844 ft^2)	5
	450 or more m^2 (more than 4,844 ft^2)	7
Thermal insulation, except as described below	Any size	3
Thermal insulation patch	Less than 2 linear meters (6.6 ft.) or 0.5 m^2 (approximately 5.4 ft^2)	1
Other material	Any size	3

Representative samples of suspected ACMs were submitted to an independent accredited laboratory (EMSL Canada, Inc., 22 Antares Drive, Ottawa, Ontario, NVLAP accreditation #201040-0) for asbestos content analysis. Polarized Light Microscopy was completed in accordance with EPA methodologies and dispersion staining techniques (EPA 600/R-93/116). Sample collection and analysis was conducted as per *O. Reg. 278/05*. Samples from homogeneous areas were grouped together and analyzed.

Materials reported to contain less than 0.5% asbestos (dry weight), including those referred to as less than the limit of detection (<LOD) or trace, are not considered to be asbestos-containing under *O. Reg. 278/05*. The LOD is 0.5%.

Suspect Lead-Containing Materials

Analyzing, sampling, and visual assessment of suspected lead-containing materials, specifically paint, was completed as part of the survey. Samples of suspected lead-containing paints were extracted using a clean knife and scraping off a small piece of the material. Care was taken to penetrate all paint layers at each sample location.

Collected samples were placed in sealed bags and labelled for submission to EMSL Canada, Inc., 2756 Slough Street, Mississauga, Ontario (American Association for Laboratory Accreditation, Accredited Environmental Testing Certificate #2845.08) for lead analysis following EPA method SW 846 3050B/7000B. Each sample is digested, diluted and analyzed by flame atomic absorption spectroscopy.

Suspected Mercury-Containing Materials

An assessment for potential mercury-containing equipment installed at the Site was completed as part of the survey. Mercury-containing thermostats and fluorescent light tubes and bulbs that may be impacted during the project activities were noted, where observed. Elemental mercury may be present in switches and electrical switch gear at the Site. Trace amounts of mercury are present as a vapour within metal halide light bulbs and fluorescent light tubes and bulbs. These light bulbs and tubes may pose an occupational hazard to unprotected workers if broken.

Suspected Silica-Containing Materials

A visual assessment was completed to determine the potential for silica-containing materials to be present within the project areas at the Site.

Other Designated Substances

Other designated substances as defined in *O. Reg. 490/09* under the *OH&S Act* include acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates and vinyl chloride. Based on professional experience, none of these substances were expected to be present and, as such, no specific observations or sampling of materials potentially containing these substances were undertaken as part of this assessment.

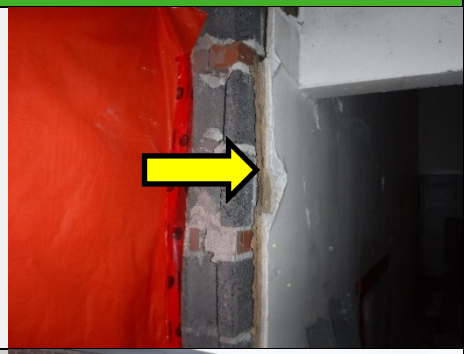
APPENDIX C

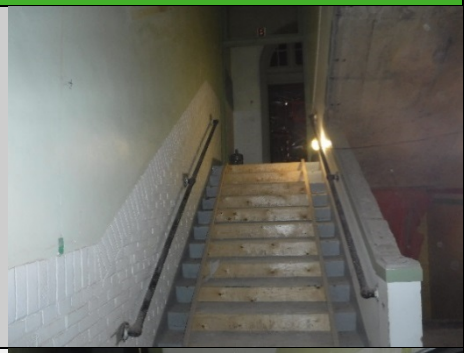
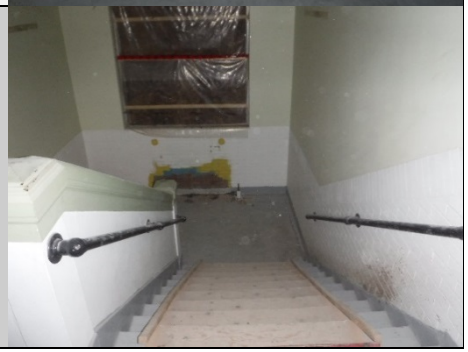
Spreadsheet of Findings

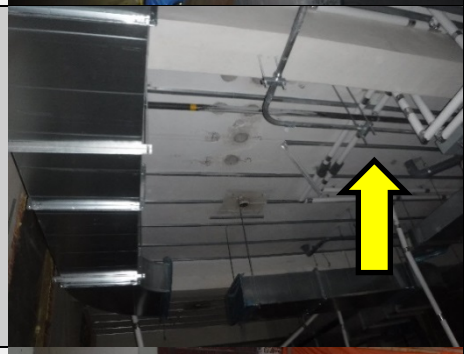
Table C.1: Summary of Materials Sampled for Asbestos Analysis

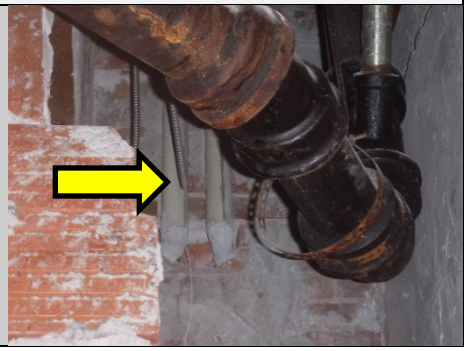
Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Black Tar	**Present on walls within Electrical Room 005**	**56 m^2**	**Good**	**No**	**A**	**1A – 1C**	**25% Chrysotile**	
Red Caulking	Present around the chimney pipe inside Mechanical Room 002	1.5 linear meters	N/A	N/A	N/A	2 Caulk A – 2 Caulk C	N/A	
Grey Parging	**Present on top of Red Caulking around chimney pipe inside Mechanical Room 002**	**1.5 linear meters**	**Poor**	**Yes**	**C**	**2 Parging A – 2 Parging C**	**65% Chrysotile**	

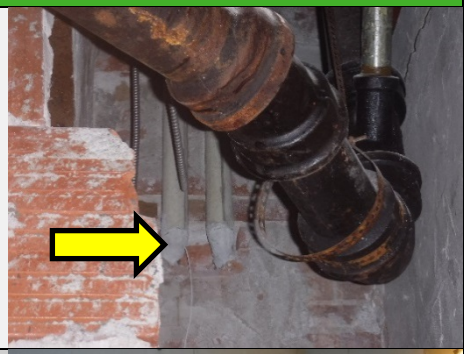
Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Concrete Infill	Present around chimney pipe inside Mechanical Room 002	N/A	N/A	N/A	N/A	3A – 3C	N/A	
Black Tar Paper	Present between terracotta and red clay brick	N/A	N/A	N/A	N/A	4A – 4C	N/A	
Fiberboard (Bulletin Boards)	Present in classrooms and corridors	N/A	N/A	N/A	N/A	5A – 5C	N/A	

Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Fiberboard (Behind Plaster)	Present behind plaster in West Entrance and South Entrance to Gymnasium	N/A	N/A	N/A	N/A	6A – 6C	N/A	
Exterior Brick Mortar	Present on the exterior of the Stage Area of the Gymnasium	N/A	N/A	N/A	N/A	7A – 7C	N/A	
Exterior White Caulking	**Present around South West Exterior Stage Door**	**12 Linear Meters**	**Poor to Fair**	**No**	**A**	**8A – 8C**	**4% Chrysotile**	

Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Plaster	East stairwell – First floor to first landing	90 m^2	Fair to Good	Yes	A	9A – 9C	Skim Coat: 2% to 4% Chrysotile Base Coat: None detected	
Plaster	East stairwell – First landing to second floor	50 m^2	Fair to Good	Yes	A	10A – 10C	Skim Coat: 4% Chrysotile Base Coat: None detected	
Plaster	East stairwell – second floor to third floor	120 m^2	Fair to Good	Yes	A	11A – 11C	Skim Coat: 2% Chrysotile Base Coat: 1% Chrysotile	

Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Cementitious Parging	Present on select areas of walls within Mech 002, and Elec 004 in the basement	6 m^2	Fair to Good	Yes	A	12A – 12C	1% Chrysotile	
Thin plaster layer over concrete surface of gymnasium ceiling	Present in gymnasium	85 m^2	Fair to Good	Yes	C	13A – 13C	3% Chrysotile	
Tar Paper	Present along the exterior east side of the foundation	N/A	N/A	N/A	N/A	14A – 14C	None detected	

Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Plaster	Present within proposed Elevator lobby 210 location on exterior east side of building	28 m^2	Poor	Yes	B	No sample collected as material could not be safely accessed	Assumed to be asbestos-containing as all other plaster at the Site is asbestos-containing	
Bell and spigot joint packing materials	Present within wall cavities where existing air ducts are present and in the proposed Community Centre 140	Unknown	Good	Yes	D	No sample collected as sampling would have impacted the integrity of the piping system	Assumed as bell and spigot joints are known to contain ACMs	
Pipe Straight Insulation	Present inside west air duct wall cavity running between D144C, 215 and 318A	Unknown	Fair to Poor	Yes	D	Historical EHSP Report: 04-0068-12-001 PS-1-A – PS-1-C	90% Chrysotile	

Material Description	Material Location[1]	Observed Estimated Quantity	Condition	Friable (Yes / No)	Accessibility[3]	Sample Number	Asbestos Concentration (%) and Type	Photograph
Elbow Parging	Present inside west air duct wall cavity running between D144C, 215 and 318A	Unknown	Fair to Poor	Yes	D	Historical EHSP Report: 04-0068-12-001 PR-1-A – PR-1-C	65% Chrysotile	
Plaster	Present throughout Ground, Second and Third Floors	2,900 m^2	Fair to Poor	Yes	A	Historical EHSP Report: 04-0068-12-001 PL-1-A – PL-1-C	2% Chrysotile	

Notes: (1) The confirmed asbestos-containing materials (ACMs) were observed throughout the Site. All materials found to be in likeness to identified ACMs should be assumed to be ACMs unless otherwise confirmed by laboratory analyses.
(2) "N/A" indicates not applicable. Sampled material contains less than 0.5% of asbestos by weight and is not considered to be an ACM in accordance with O. Reg. 278/05.
(3) The accessibility of known ACMs is rated in accordance with the following criteria:

Access (A): Areas of the building within reach (from floor level) of all building users. Includes areas such as gymnasiums, workshops, and storage areas where activities of the building users (for example basketball on gym ceiling) may result in disturbance of ACM not normally within reach from floor level.
Access (B): Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder. Includes: frequently entered pipe chases, tunnels and service areas or areas within reach from a fixed ladder or catwalk, for example tops of equipment, mezzanines.
Access (C) Exposed: Areas of the building above 6'0" where use of a ladder is required to reach the ACM. Only refers to asbestos-containing material materials that are exposed to view, from the floor or ladder, without removing or opening other building components such as ceiling tiles, or service access doors or hatches. Does not include infrequently-accessed service areas of the building.
Access (D) Concealed: Areas of the building which require the removal of a building component, including lay-in ceilings and access panels into solid ceiling systems such as a ventilation plenum. Includes rarely-entered crawl spaces, attic spaces, etc. Observations are limited to the extent visible from the access points.
Access (E) Concealed: Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall or equipment, etc., is required to reach the ACM. Evaluation of condition and extent of ACM is limited or impossible, depending on the assessor's ability to visually examine the materials in areas rated Access (D).

Table C.2: Summary of Paints Sampled for Lead Analysis

Description / Location of Material	Condition	Lead Concentration (ppm)	Sample Number	Lead-Containing (Yes/No)	Photograph
Blue paint – Present on floors throughout second floor and third floor	N/A(1)	<88	Lp-01	No	
Lead solder / Present bell and spigot joints inside wall cavities for air ducts	**Good**	**No sample collected as sampling would have impacted the integrity of the piping system. Material visually appears to be lead-containing and bell and spigot joints are known to contain lead solder**		**Assumed**	

Description / Location of Material	Condition	Lead Concentration (ppm)	Sample Number	Lead-Containing (Yes/No)	Photograph
White wall paint – Present on walls from the basement to the fourth floor	Fair	154	Historical EHSP Report: 04-0068-12-001 LBP-D	Yes	
Grey floor paint – Present within the basement and on the east and west stairs	Fair	1955	Historical EHSP Report: 04-0068-12-001 LBP-G	Yes	

Description / Location of Material	Condition	Lead Concentration (ppm)	Sample Number	Lead-Containing (Yes/No)	Photograph
Yellow paint – Present on brick in various areas from the basement to the third floor	Fair	1243	Historical EHSP Report: 04-0068-12-001 LBP-J	Yes	

Notes: (1) "N/A" indicates not applicable. Sampled paint contains less than laboratory reporting detection limit and is not considered to be a lead-containing paint (LCP).

https://golderassociates.sharepoint.com/sites/21338g/deliverables/dsr/appendix c - spreadsheet of findings - jlr.docx

APPENDIX D

Laboratory Test Reports

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800267
Customer ID: 55GOLA78
Customer PO:
Project ID:

Attn: Kyle Heagle
Golder Associates, Ltd.
1931 Robertson Road
Ottawa, ON K2H 5B7

Phone: (613) 592-9600
Fax: (613) 592-9601
Collected:
Received: 2/02/2018
Analyzed: 2/09/2018

Proj: 1791616

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 1A **Lab Sample ID:** 671800267-0001
Sample Description: BLACK TAR ON WALLS IN MECH 005

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Black	0%	100%	None Detected	

Client Sample ID: 1B **Lab Sample ID:** 671800267-0002
Sample Description: BLACK TAR ON WALLS IN MECH 005

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Black	0%	100%	None Detected	

Client Sample ID: 1C **Lab Sample ID:** 671800267-0003
Sample Description: BLACK TAR ON WALLS IN MECH 005

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Black	0%	75%	**25% Chrysotile**	

Client Sample ID: 2A-Caulk **Lab Sample ID:** 671800267-0004
Sample Description: RED CAULKING AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Red	0%	100%	None Detected	

Client Sample ID: 2A-Parging **Lab Sample ID:** 671800267-0004A
Sample Description: RED CAULKING AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	35%	**65% Chrysotile**	

Client Sample ID: 2B-Caulk **Lab Sample ID:** 671800267-0005
Sample Description: RED CAULKING AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Red	0%	100%	None Detected	

Client Sample ID: 2B-Parging **Lab Sample ID:** 671800267-0005A
Sample Description: RED CAULKING AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	35%	**65% Chrysotile**	

EMSL Canada Inc.

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EMSL Canada Order 671800267
Customer ID: 55GOLA78
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 2C-Caulk **Lab Sample ID:** **671800267-0006**
Sample Description: RED CAULKING AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Red	0%	100%	None Detected	

Client Sample ID: 2C-Parging **Lab Sample ID:** **671800267-0006A**
Sample Description: RED CAULKING AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	35%	**65% Chrysotile**	

Client Sample ID: 3A **Lab Sample ID:** **671800267-0007**
Sample Description: INFILL AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	100%	None Detected	

Client Sample ID: 3B **Lab Sample ID:** **671800267-0008**
Sample Description: INFILL AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	100%	None Detected	

Client Sample ID: 3C **Lab Sample ID:** **671800267-0009**
Sample Description: INFILL AROUND CHIMNEY PIPE IN MECH 002

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	100%	None Detected	

Client Sample ID: 4A **Lab Sample ID:** **671800267-0010**
Sample Description: BLACK TAR PAPER BETWEEN TERRACOTTA AND BRICKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown/Black	55%	45%	None Detected	

Client Sample ID: 4B **Lab Sample ID:** **671800267-0011**
Sample Description: BLACK TAR PAPER BETWEEN TERRACOTTA AND BRICKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Black	70%	30%	None Detected	

Client Sample ID: 4C **Lab Sample ID:** **671800267-0012**
Sample Description: BLACK TAR PAPER BETWEEN TERRACOTTA AND BRICKS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Black	70%	30%	None Detected	

EMSL Canada Inc.

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Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800267
Customer ID: 55GOLA78
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 5A **Lab Sample ID:** **671800267-0013**
Sample Description: FIBERBOARD IN CLASSROOMS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown	98%	2%	None Detected	

Client Sample ID: 5B **Lab Sample ID:** **671800267-0014**
Sample Description: FIBERBOARD IN CLASSROOMS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown	98%	2%	None Detected	

Client Sample ID: 5C **Lab Sample ID:** **671800267-0015**
Sample Description: FIBERBOARD IN CLASSROOMS

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown	98%	2%	None Detected	

Client Sample ID: 6A **Lab Sample ID:** **671800267-0016**
Sample Description: FIBERBOARD BEHIND PLASTER IN ENTRANCES

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown/Black	98%	2%	None Detected	

Client Sample ID: 6B **Lab Sample ID:** **671800267-0017**
Sample Description: FIBERBOARD BEHIND PLASTER IN ENTRANCES

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown/Black	98%	2%	None Detected	

Client Sample ID: 6C **Lab Sample ID:** **671800267-0018**
Sample Description: FIBERBOARD BEHIND PLASTER IN ENTRANCES

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Brown	98%	2%	None Detected	

Client Sample ID: 7A **Lab Sample ID:** **671800267-0019**
Sample Description: EXTERIOR BRICK MORTAR FROM STAGE AREA

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	100%	None Detected	

Client Sample ID: 7B **Lab Sample ID:** **671800267-0020**
Sample Description: EXTERIOR BRICK MORTAR FROM STAGE AREA

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Gray	0%	100%	None Detected	

EMSL Canada Inc.

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Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800267
Customer ID: 55GOLA78
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 7C ***Lab Sample ID:*** **671800267-0021**

Sample Description: EXTERIOR BRICK MORTAR FROM STAGE AREA

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Pink	0%	100%	None Detected	

Client Sample ID: 8A ***Lab Sample ID:*** **671800267-0022**

Sample Description: EXTERIOR CAULKING AROUND DOOR LOCATED ON THE SOUTH WEST SIDE OF THE STAGE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Beige	0%	96%	**4% Chrysotile**	

Client Sample ID: 8B ***Lab Sample ID:*** **671800267-0023**

Sample Description: EXTERIOR CAULKING AROUND DOOR LOCATED ON THE SOUTH WEST SIDE OF THE STAGE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Beige	0%	96%	**4% Chrysotile**	

Client Sample ID: 8C ***Lab Sample ID:*** **671800267-0024**

Sample Description: EXTERIOR CAULKING AROUND DOOR LOCATED ON THE SOUTH WEST SIDE OF THE STAGE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/09/2018	Beige	0%	96%	**4% Chrysotile**	

Analyst(s):

Ewa Krupinska PLM (9)
Simon Parent PLM (18)

Reviewed and approved by:

Simon Parent, Laboratory Manager
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 02/09/201812:58:17

OrderID: 671800267

EMSL CANADA, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 671800267

EMSL CANADA, INC.
22 ANTARES DRIVE, SUITE 102
OTTAWA, ON, K2E 7Z6
PHONE: (343) 882-6076
FAX: (343) 882-6077

Company : Golder Associates Ltd	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 1931 Robertson Road	
City: Ottawa / **State/Province: ON**	**Zip/Postal Code: K2H 5B7** / **Country: Canada**
Report To (Name): Kyle Heagle	**Fax #:**
Telephone #: 613-295-1391	**Email Address: kyle_heagle@golder.com**
Project Name/Number: 1791616	
Please Provide Results: ☐ Fax ☐ Email	**Purchase Order:** / **U.S. State Samples Taken:**

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

**For TEM Air 3 hours through 6 hours, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%) 0-5
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ IRSST 244-3 PLM/TEM
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other: ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Kyle Heagle | **Samplers Signature:** Kyle Heagle

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1A - 1C	Black Tar on walls in Mech 005		
2A - 2C	Red Caulking around chimney pipe in Mech 002		
3A-3C	Infill around chimney Pipe in Mech 002		
4A-4C	Black Tar Paper between Terracotta and Bricks		
5A-5C	Fiberboard in classrooms		
6A-6C	Fiberboard behind plaster in entrances		
7A-7C	Exterior Brick Mortar from stage area		
8A-8C	Exterior caulking around door located on the south west side of the stage		

Client Sample # (s): 1A-1C - 8A-8C **Total # of Samples:** 24

Relinquished (Client): Kyle Heagle **Date:** Feb 2, 2018 **Time:** 10:00 am

Received (Lab): Courier Ottawa **Date:** 2/2/18 **Time:** 12:40pm

Comments/Special Instructions:

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800348
Customer ID: 55GOLA78
Customer PO: 1791616
Project ID:

Attn: Kyle Heagle
Golder Associates, Ltd.
1931 Robertson Road
Ottawa, ON K2H 5B7

Phone: (613) 592-9600
Fax: (613) 592-9601
Collected:
Received: 2/14/2018
Analyzed: 2/15/2018

Proj: 1791616

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 9A-Skim Coat **Lab Sample ID:** **671800348-0001**
Sample Description: East Stairwell Plaster First floor to first landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	98%	**2% Chrysotile**	

Client Sample ID: 9A-Base Coat **Lab Sample ID:** **671800348-0001A**
Sample Description: East Stairwell Plaster First floor to first landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	1%	99%	None Detected	

Client Sample ID: 9B-Skim Coat **Lab Sample ID:** **671800348-0002**
Sample Description: East Stairwell Plaster First floor to first landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	98%	**2% Chrysotile**	

Client Sample ID: 9B-Base Coat **Lab Sample ID:** **671800348-0002A**
Sample Description: East Stairwell Plaster First floor to first landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	1%	99%	None Detected	

Client Sample ID: 9C-Skim Coat **Lab Sample ID:** **671800348-0003**
Sample Description: East Stairwell Plaster First floor to first landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	96%	**4% Chrysotile**	

Client Sample ID: 9C-Base Coat **Lab Sample ID:** **671800348-0003A**
Sample Description: East Stairwell Plaster First floor to first landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	1%	99%	None Detected	

Client Sample ID: 10A-Skim Coat **Lab Sample ID:** **671800348-0004**
Sample Description: East Stairwell Plaster First landing second stairs to top of second landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	96%	**4% Chrysotile**	

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http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800348
Customer ID: 55GOLA78
Customer PO: 1791616
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 10A-Base Coat **Lab Sample ID:** **671800348-0004A**
Sample Description: East Stairwell Plaster First landing second stairs to top of second landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 10B-Skim Coat **Lab Sample ID:** **671800348-0005**
Sample Description: East Stairwell Plaster First landing second stairs to top of second landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	96%	**4% Chrysotile**	

Client Sample ID: 10B-Base Coat **Lab Sample ID:** **671800348-0005A**
Sample Description: East Stairwell Plaster First landing second stairs to top of second landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 10C-Skim Coat **Lab Sample ID:** **671800348-0006**
Sample Description: East Stairwell Plaster First landing second stairs to top of second landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	96%	**4% Chrysotile**	

Client Sample ID: 10C-Base Coat **Lab Sample ID:** **671800348-0006A**
Sample Description: East Stairwell Plaster First landing second stairs to top of second landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 11A **Lab Sample ID:** **671800348-0007**
Sample Description: East Stairwell Plaster Second floor to third landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	99%	**1% Chrysotile**	

Client Sample ID: 11B-Skim Coat **Lab Sample ID:** **671800348-0008**
Sample Description: East Stairwell Plaster Second floor to third landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	98%	**2% Chrysotile**	

Client Sample ID: 11B-Base Coat **Lab Sample ID:** **671800348-0008A**
Sample Description: East Stairwell Plaster Second floor to third landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

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Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800348
Customer ID: 55GOLA78
Customer PO: 1791616
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 11C-Skim Coat ***Lab Sample ID:*** **671800348-0009**
Sample Description: East Stairwell Plaster Second floor to third landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	White	0%	98%	**2% Chrysotile**	

Client Sample ID: 11C-Base Coat ***Lab Sample ID:*** **671800348-0009A**
Sample Description: East Stairwell Plaster Second floor to third landing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 12A ***Lab Sample ID:*** **671800348-0010**
Sample Description: Cementitious parging on basement walls

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	99%	**1% Chrysotile**	

Client Sample ID: 12B ***Lab Sample ID:*** **671800348-0011**
Sample Description: Cementitious parging on basement walls

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 12C ***Lab Sample ID:*** **671800348-0012**
Sample Description: Cementitious parging on basement walls

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 13A ***Lab Sample ID:*** **671800348-0013**
Sample Description: Plaster from gym ceiling

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

Client Sample ID: 13B ***Lab Sample ID:*** **671800348-0014**
Sample Description: Plaster from gym ceiling

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	97%	**3% Chrysotile**	

Client Sample ID: 13C ***Lab Sample ID:*** **671800348-0015**
Sample Description: Plaster from gym ceiling

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Gray	0%	100%	None Detected	

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800348
Customer ID: 55GOLA78
Customer PO: 1791616
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 14A ***Lab Sample ID:*** **671800348-0016**

Sample Description: Tar paper along the east exterior of building

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Black	20%	80%	None Detected	

Client Sample ID: 14B ***Lab Sample ID:*** **671800348-0017**

Sample Description: Tar paper along the east exterior of building

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Black	25%	75%	None Detected	

Client Sample ID: 14C ***Lab Sample ID:*** **671800348-0018**

Sample Description: Tar paper along the east exterior of building

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	2/15/2018	Black	60%	40%	None Detected	

Analyst(s):

Ewa Krupinska PLM (13)
Simon Parent PLM (13)

Reviewed and approved by:

Simon Parent, Laboratory Manager
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 02/15/201812:29:39

OrderID: 671800348

EMSL CANADA, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 671800348

EMSL CANADA, INC.
22 ANTARES DRIVE, SUITE 102
OTTAWA, ON, K2E 7Z6
PHONE: 343-882-6076
FAX: 343-882-6077

Company : Golder Associates	**EMSL Customer ID:**
Street: 1931 Robertson Road	**City:** Ottawa
Zip/Postal Code: K2H 5B7 **State/Province:** ON	**Country:** Canada
Telephone #: 613-295-1391	**Email Address:** Kyle_Heagle@golder.com
Project Name/Number: 1791616	**EMSL Project ID** *(Internal Use Only)*:
Please Provide Results: ☐ Fax ☑ Email **Purchase Order:**	**State/Province Samples Taken:**

EMSL-Bill to: ☐ Same ☐ Different - If Bill to is Different note instructions in Comments**

Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☑ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hours through 6 hours, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air	**TEM – Air**	**Soil/Rock/Vermiculite**
☐ NIOSH 7400	☐ AHERA 40 CFR, Part 763	☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
☐ IRSST PCM	☐ NIOSH 7402	☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
PLM - Bulk (reporting limit) 0.5%	☐ EPA Level II	☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
☐ ~~PLM EPA 600/R-93/116 (<1%)~~	**TEM - Bulk**	☐ TEM EPA 600/R-93/116 with milling prep (<0.01%)
☐ 400 PTCT (<0.25%)	☐ TEM EPA NOB	☐ ASTM D7521 Sieve Method
☐ 1000 PTCT (<0.1%)	☐ IRRST TEM (NYS 198.4)	☐ TEM Qualitative via Filtration Prep
☐ PLM EPA NOB (<1%)	**TEM- Dust**	☐ TEM Qualitative via Drop Mount Prep
☐ 400 PTCT (<0.25%)	☐ Microvac - ASTM D 5755	☐ Cincinnati Method EPA 600/R-04/004 - PLM/TEM*
☐ 1000 PTCT (<0.1%)	☐ Wipe - ASTM D6480	*(required for vermiculite in BC and NS)
☐ IRSST PLM	**TEM - Water**	**Asphalt**
☐ NIOSH 9002 (<1%)	☐ EPA 100.2 (All fibre sizes)	☐ PLM EPA Gravimetric with milling prep (<0.25%)
☐ Other	☐ EPA 100.2 (Fibres >10µm)	

☐ **Check For Positive Stop – Clearly Identify Homogenous Groups** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Kyle Heagle **Sampler's Signature:** Kyle Heagle

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
9A - 9C	East Stairwell Plaster First floor to first landing		
10A - 10C	East Stairwell Plaster First landing Second Stairs to top of Second landing		
11A - 11C	East Stairwell Plaster Second Floor to Third landing		
12A - 12C	Cementious parging on basement walls		
13A - 13C	Plaster from gym Ceiling		
14A - 14C	Tar paper along the east exterior of building		

Client Sample # (s): 9A - 9C - 14A - 14C **Total # of Samples:** 18

Relinquished (Client): Kyle Heagle **Date:** Feb 14, 2018 **Time:** 1:03

Received (Lab): [signature] **Date:** 2/19/18 **Time:** 1:03 PM

Comments/Special Instructions:

EMSL Canada Inc.
2756 Slough Street, Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.EMSL.com torontolab@emsl.com

EMSL Canada Or	551801364
CustomerID:	55GOLA78
CustomerPO:	1791616
ProjectID:	

Attn: **Kyle Heagle**
Golder Associates, Ltd.
1931 Robertson Road
Ottawa, ON K2H 5B7

Phone: (613) 592-9600
Fax: (613) 592-9601
Received: 02/05/18 11:31 AM
Collected:

Project: **1791616**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3051A/7000B)*

Client SampleDescription	*Collected*	*Analyzed*	*Weight*	*RDL*	*Lead Concentration*
LP#1		2/6/2018	0.2279 g	88 ppm	<88 ppm
551801364-0001	Site: BLUE FLOOR PAINT				

Rowena Fanto, Lead Supervisor
or other approved signatory

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

Samples analyzed by EMSL Canada Inc. Mississauga, ON

Initial report from 02/12/2018 08:31:59

OrderID: 551801364

EMSL CANADA, INC.
LABORATORY • PRODUCTS • TRAINING

Lead (Pb) Chain of Custody

EMSL Order ID *(Lab Use Only)*: 551801364

EMSL CANADA, INC.
10 FALCONER DRIVE UNIT #3
MISSISSAUGA, ON L5N 3L8
PHONE: (289) 997-4602
FAX: (289) 997-4607

Company : Golder Associates	**EMSL-Bill to:** ☐ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 1931 Robertson Rd	
City: Ottawa / **State/Province: ON**	**Zip/Postal Code: K2H 5B7** / **Country: Canada**
Report To (Name): Kyle Heagle	**Telephone #: 613-592-9600**
Email Address: kyle_heagle@golder.com	**Fax #:** / **Purchase Order:**
Project Name/Number: 1791616	**Please Provide Results:** ☐ Fax ☒ Email
U.S. State Samples Taken:	**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour | ☐ 6 Hour | ☐ 24 Hour | ☐ 48 Hour | ☐ 72 Hour | ☐ 96 Hour | ☒ 1 Week | ☐ 2 Week

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide*

Matrix	Method	Instrument	Reporting Limit	Check
Chips ☐ % by wt. ☐ mg/cm² ☒ ppm	SW846-7000B	Flame Atomic Absorption	0.01%	☐
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	☐
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	☐
	NIOSH 7300 modified	ICP-AES/ICP-MS	0.5 µg/filter	☐
Wipe* ASTM ☐ non ASTM ☐ *if no box is checked, non-ASTM Wipe is assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	☐
	SW846-6010B or C	ICP-AES	1.0 µg/wipe	☐
	SW846-7000B/7010	Graphite Furnace AA	0.075 µg/wipe	☐
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW846-1131/SW846-6010B or C	ICP-AES	0.1 mg/L (ppm)	☐
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	☒
	SW846-7010	Graphite Furnace AA	0.3 mg/kg (ppm)	☐
	SW846-6010B or C	ICP-AES	2 mg/kg (ppm)	☐
Wastewater Unpreserved ☐ Preserved with HNO_3 pH < 2 ☐	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	☐
	EPA 200.7	ICP-AES	0.020 mg/L (ppm)	☐
Drinking Water Unpreserved ☐ Preserved with HNO_3 pH < 2 ☐	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	☐
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	☐
TSP/SPM Filter	40 CFR Part 50	ICP-AES	12 µg/filter	☐
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	☐
Other:				☐

Name of Sampler: Kyle Heagle **Signature of Sampler:** Kyle Heagle

Sample #	Location	Volume/Area	Date/Time Sampled
LP#1	Blue Floor Paint		

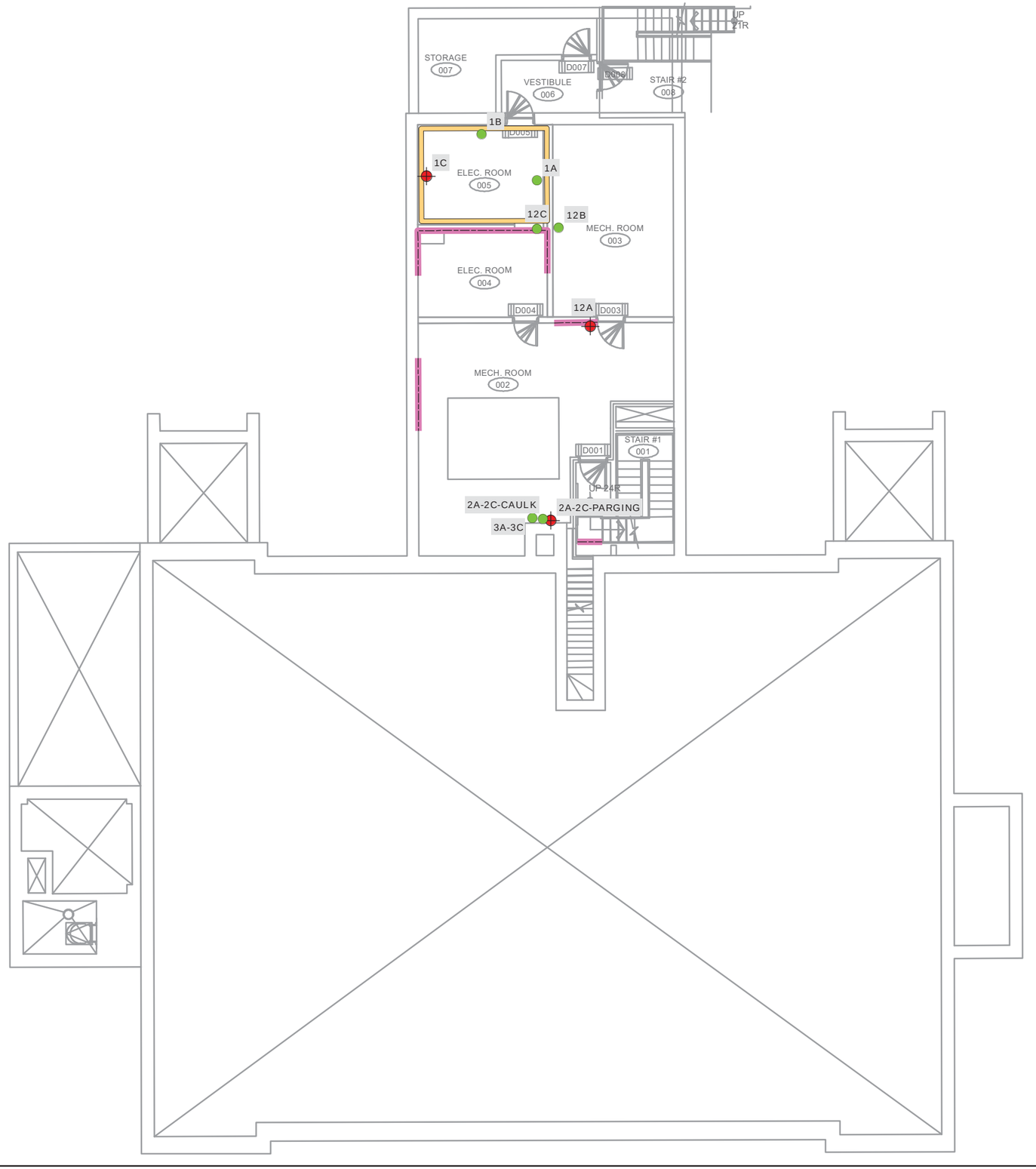
Client Sample #'s LP1 - LP1 **Total # of Samples:** 1

Relinquished (Client):	Kyle Heagle	**Date:**	Feb 2, 2017	**Time:**	10:00 am
Received (Lab):		**Date:**		**Time:**	

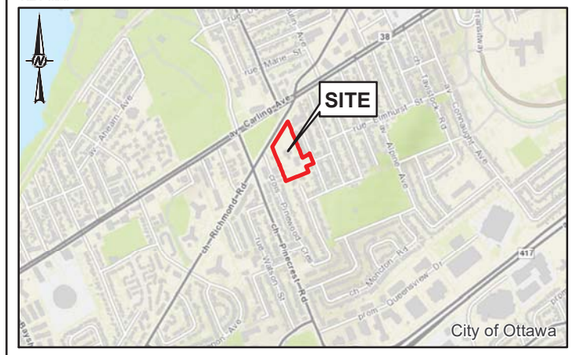
Comments:

APPENDIX E

Figures



KEY MAP



SCALE 1:25,000

LEGEND

- APPROXIMATE ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION
- APPROXIMATE NON-ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION

CONFIRMED AREAS OF REMAINING ASBESTOS-CONTAINING MATERIALS

- REMAINING 25% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING BLACK TAR ON WALLS
- REMAINING 1% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING CEMENTITIOUS PARGING ON WALLS

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. FLOOR PLAN PROVIDED BY CLIENT IN AUTOCAD FORMAT.
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

CLIENT
J.L. RICHARDS & ASSOCIATES LIMITED

PROJECT
DESIGNATED SUBSTANCES REVIEW
LA MAISON DE LA FRANCOPHONIE D'OTTAWA
2720 RICHMOND ROAD, OTTAWA

TITLE
SAMPLE LOCATION PLAN, BASEMENT

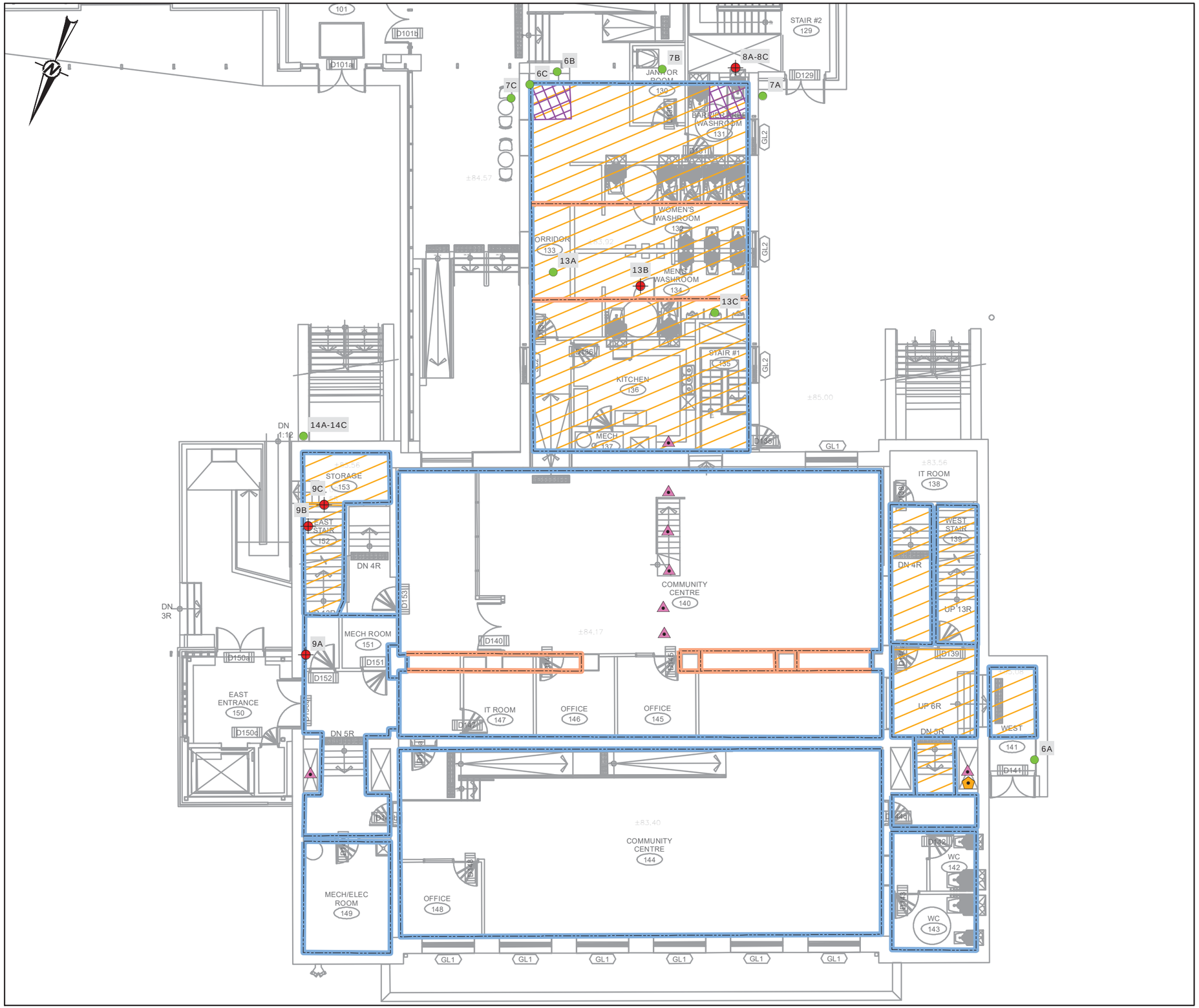
CONSULTANT
GOLDER

YYYY-MM-DD	2018-02-22
DESIGNED	KH
PREPARED	BR
REVIEWED	TAS
APPROVED	TAS

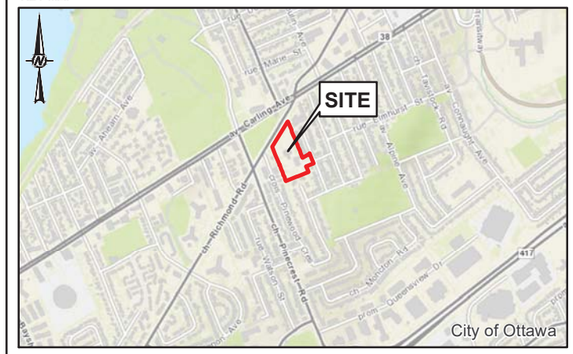
PROJECT NO.	CONTROL	REV.	FIGURE
1791616	0001	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

Path: N:\Active\Spatial_IM\CEPE\Q\2720_Richmond_Rd_Ottawa\99_PRO\1791616_JLR_DSRv0_PROD\0001_HS_DSR\1791616-0001-HS-0001.mxd



KEY MAP



SCALE 1:25,000

LEGEND

- APPROXIMATE ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION
- APPROXIMATE NON-ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION

CONFIRMED AREAS OF REMAINING ASBESTOS-CONTAINING MATERIALS

- ASSUMED ASBESTOS-CONTAINING MATERIAL PRESENT WITHIN BELL AND SPIGOT JOINTS (MULTIPLE JOINTS AT EACH LOCATION)
- REMAINING 65%-90% CHRYSOTILE FRIABLE ASBESTOS-CONTAINING ELBOW AND PIPE INSULATION
- REMAINING 1%-4% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING WALL PLASTER
- REMAINING 1%-4% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING BULKHEADS
- REMAINING 1%-3% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING CEILING PLASTER
- REMAINING 1%-3% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING CEILING DOUBLE LAYER OF PLASTER

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. FLOOR PLAN PROVIDED BY CLIENT IN AUTOCAD FORMAT.
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

CLIENT

J.L. RICHARDS & ASSOCIATES LIMITED

PROJECT

DESIGNATED SUBSTANCES REVIEW
LA MAISON DE LA FRANCOPHONIE D'OTTAWA
2720 RICHMOND ROAD, OTTAWA

TITLE

SAMPLE LOCATION PLAN, GROUND FLOOR

CONSULTANT

GOLDER

YYYY-MM-DD	2018-02-22
DESIGNED	KH
PREPARED	BR
REVIEWED	TAS
APPROVED	TAS

PROJECT NO.	CONTROL	REV.	FIGURE
1791616	0001	0	**2**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 0 25mm

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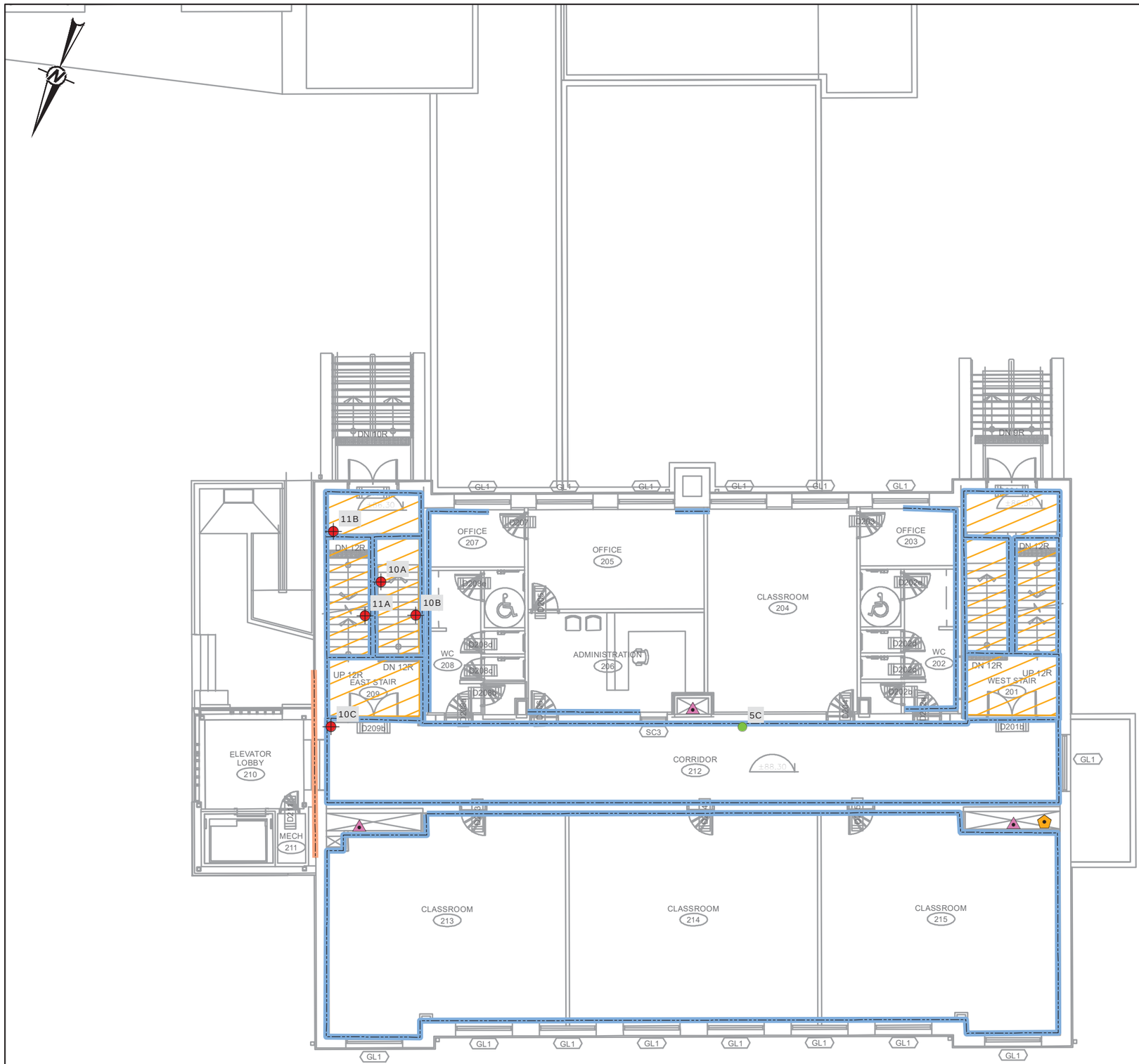
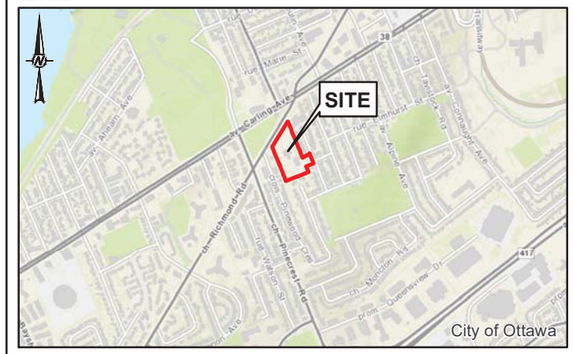


KEY MAP



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LEGEND

- APPROXIMATE ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION
- APPROXIMATE NON-ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION

CONFIRMED AREAS OF REMAINING ASBESTOS-CONTAINING MATERIALS

- ASSUMED ASBESTOS-CONTAINING MATERIAL PRESENT WITHIN BELL AND SPIGOT JOINTS (MULTIPLE JOINTS AT EACH LOCATION)
- REMAINING 65%-90% CHRYSOTILE FRIABLE ASBESTOS-CONTAINING ELBOW AND PIPE INSULATION
- REMAINING 1%-4% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING WALL PLASTER
- ASSUMED TO BE CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING WALL PLASTER
- REMAINING 1%-3% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING CEILING PLASTER

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. FLOOR PLAN PROVIDED BY CLIENT IN AUTOCAD FORMAT.
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

CLIENT
J.L. RICHARDS & ASSOCIATES LIMITED

PROJECT
DESIGNATED SUBSTANCES REVIEW
LA MAISON DE LA FRANCOPHONIE D'OTTAWA
2720 RICHMOND ROAD, OTTAWA

TITLE
SAMPLE LOCATION PLAN, SECOND FLOOR

CONSULTANT
GOLDER

YYYY-MM-DD	2018-02-22
DESIGNED	KH
PREPARED	BR
REVIEWED	TAS
APPROVED	TAS

PROJECT NO.	CONTROL	REV.	FIGURE
1791616	0001	0	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

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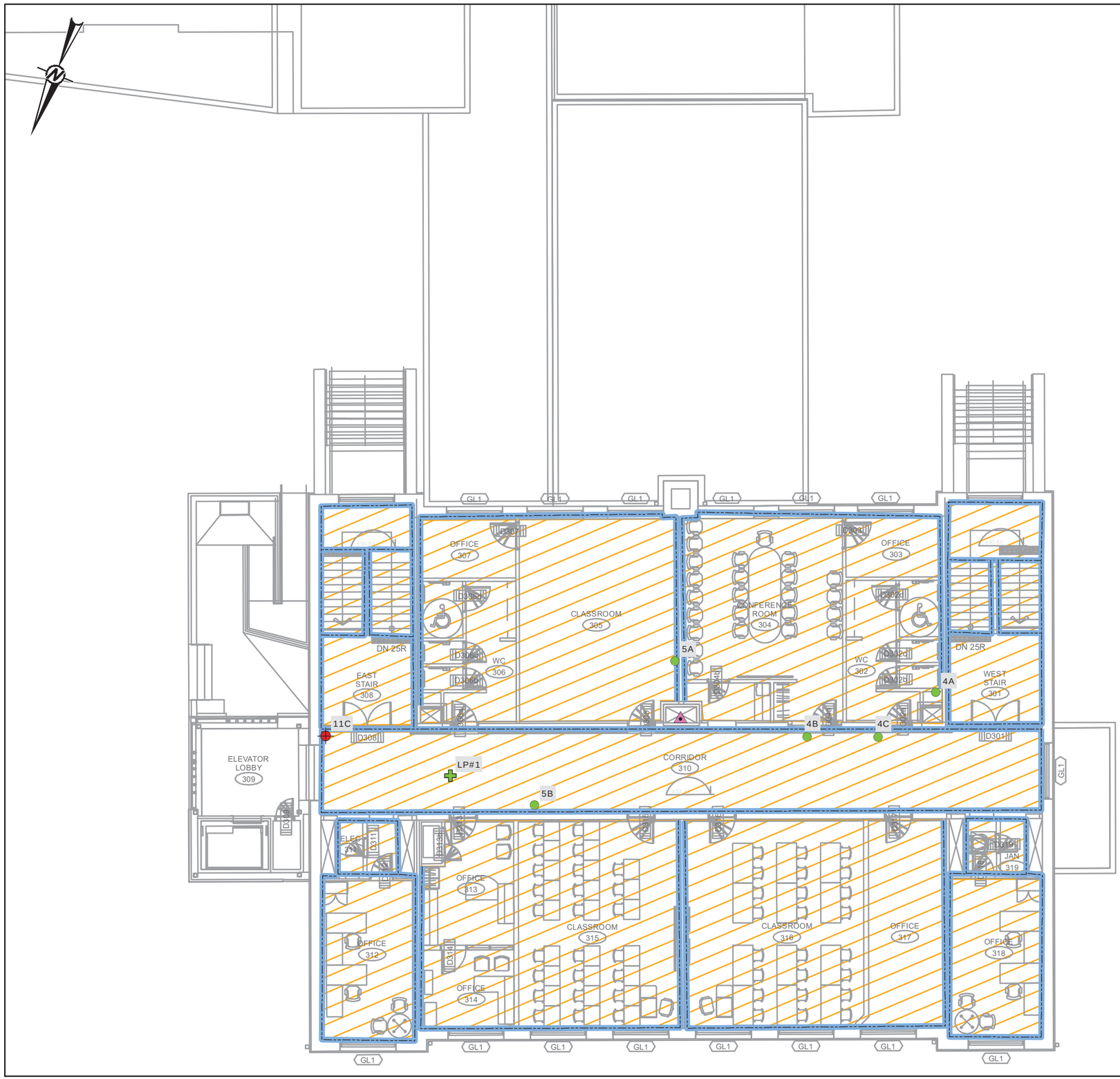

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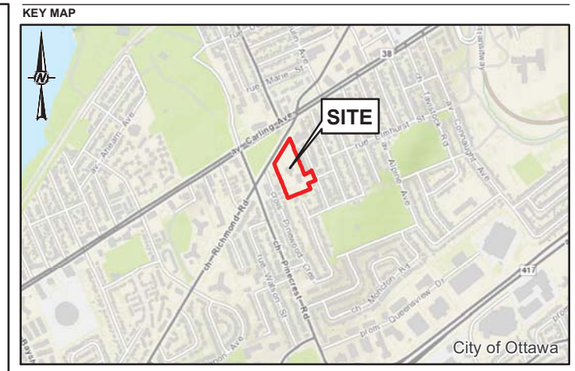

SCALE 1:25,000

LEGEND

- APPROXIMATE ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION
- APPROXIMATE NON-ASBESTOS-CONTAINING MATERIAL SAMPLE LOCATION
- APPROXIMATE NON-LEAD-CONTAINING PAINT SAMPLE LOCATION

CONFIRMED AREAS OF REMAINING ASBESTOS-CONTAINING MATERIALS

- ASSUMED ASBESTOS-CONTAINING MATERIAL PRESENT WITHIN BELL AND SPIGOT JOINTS (MULTIPLE JOINTS AT EACH LOCATION)
- REMAINING 1%-4% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING WALL PLASTER
- REMAINING 1%-3% CHRYSOTILE NON-FRIABLE ASBESTOS-CONTAINING CEILING PLASTER

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. FLOOR PLAN PROVIDED BY CLIENT IN AUTOCAD FORMAT.
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

CLIENT
J.L. RICHARDS & ASSOCIATES LIMITED

PROJECT
DESIGNATED SUBSTANCES REVIEW
LA MAISON DE LA FRANCOPHONIE D'OTTAWA
2720 RICHMOND ROAD, OTTAWA

TITLE
SAMPLE LOCATION PLAN, THIRD FLOOR

CONSULTANT
GOLDER

YYYY-MM-DD	2018-02-22
DESIGNED	KH
PREPARED	BR
REVIEWED	TAS
APPROVED	TAS

PROJECT NO.	CONTROL	REV.	FIGURE
1791616	0001	0	4

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APPENDIX F

Reference Reports

Centre Multiservices Francophone de l'Ouest d'Ottawa

Designated Substances Survey
2720 Richmond Road
Ottawa, Ontario

April 2012
EHS[P] Project No.: 04-0068-12-001

DESIGNATED SUBSTANCES SURVEY REPORT
2720 RICHMOND ROAD
OTTAWA, ON

EHS Project No.: 04-0068-12-001

Prepared by:
EHS Partnerships Ltd.
406 – 2 Gurdwara Road
Ottawa, ON K2E 1A2

For:

Mr. Bernard Benoit
CMFO c/o Bernard Benoit Project Management Inc.
2212 Gladwin Crescent, Unit B4
Ottawa, ON.
K1B 5N1

April 2012

Prepared by:

Geoff Leclair, A.Sc.T
Project Coordinator

Reviewed by:

Trent Windsor, C.E.T.
Associate

CONFIDENTIAL

Distribution:

2 Copies (1 PDF & 1 hard copy) – BBPM Inc.
1 Copy – EHS Partnerships Ltd.

EXECUTIVE SUMMARY

EHS Partnerships Ltd. (EHS[p]) was commissioned by BBPM Project Managers on behalf of the Centre Multiservices Francophone de l'Ouest d'Ottawa (CMFO) to complete a Designated Substances Survey (DSS) of the property located at 2720 Richmond Road in Ottawa, Ontario (Site). The survey was requested to satisfy Section 30 of the Occupational Health and Safety Act and Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (O.Reg. 278/05) in order to identify any designated and hazardous materials that may be present at the site.

EHS[p] personnel completed the site reconnaissance on April 4, 2012. Based on the findings of the visual inspection, suspect materials were documented, collected and subsequently submitted for analysis at a 3rd party analytical laboratory.

FINDINGS

Asbestos

Asbestos was detected in sampled plaster, drywall joint compound, vinyl flooring, thermal insulation, ceiling tile and mastic at the site. Potential asbestos containing materials observed at the Site and not sampled include roofing materials, caulking, glue-on ceiling tile mastic, and gymnasium ceiling panels located in the main building. All asbestos containing material (ACM) and potential ACM was observed to be in good condition during the DSS and do not currently pose a hazard to occupants, workers, and others unless this material is damaged or disturbed without using the proper engineering controls. See Section 6.0.

Benzene

Benzene was not observed at the site; however, there may be a potential exposure hazard to occupants, workers, or others if plastic or rubber materials are exposed to excessive heat.

Lead

Lead was detected in all the paint chip samples collected at the Site. Painted surfaces were observed to be in good to poor condition and may pose an exposure risk to occupants, workers, or others if paint is disturbed without taking the proper precautions. Lead may also be present in the solder joints of the copper piping observed throughout the site. See Section 7.0.

Mercury

Mercury vapour is present in fluorescent light tubes located throughout the Site. Mercury at the site does not pose a risk to site occupants, workers, or others if these materials are handled and disposed of with care.

Mould

Visible potential mould growth was observed during the DSS in the main building outside of the fan room. Evidence of significant moisture intrusion was observed throughout the Site in the basement.

Moisture proofing elements of the foundation may have degraded overtime resulting in significant water infiltration. The conditions at the Site are potentially hazardous to occupants, workers, or others.

Polychlorinated Biphenyls (PCBs)

PCB's may be present in light ballasts at the Site. PCB containing ballasts do not pose a hazard to Site occupants, workers, or others if they are handled and disposed of using proper procedures.

Silica

Silica is present in the concrete, terrazzo, mortar, brick, asphalt, plaster, drywall joint compound, foundation parging, vinyl flooring, ceramic tiles, and cementitious parging observed at the site. Silica containing materials were observed to be in good condition at the time of the DSS and do not currently pose a hazard to occupants, workers, or others unless these materials are damaged or disturbed without using proper engineering controls.

Vinyl Chloride

Vinyl Chloride was not observed at the site; however there is a potential exposure hazard to occupants, workers, or others if Polyvinyl Chloride (PVC) pipes and wire coatings are exposed to excessive heat.

Other Designated Substances and Hazardous Materials

Arsenic, Acrylonitrile, Isocyanates, Coke Oven Emissions, and Ethylene Oxide, were not observed at the site.

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1.0 INTRODUCTION

EHS Partnerships (EHS[p]) was retained by Mr. Bernard Benoit of the Centre Multiservices Francophone de l'Ouest d'Ottawa (CMFO) c/o BBPM Inc. to conduct a Designated and Hazardous Substances Survey (DSS) at the property located at 2720 Richmond Road, Ottawa, Ontario (Site). This report details the results of the DSS completed at the site on April 4, 2012.

2.0 SITE DESCRIPTION

The Site consists of a two-storey main building and a one-storey annex building which were constructed in the 1920's and 1949 respectively. The main building includes a basement and the annex is slab on grade. The exterior of the buildings are finished with brick and mortar, and various roofing systems including asphalt. The interior walls and ceilings are comprised plaster, concrete, and some drywall. The flooring observed during the DSS consists of concrete, terrazzo, vinyl, and carpet. Various types of ceiling tiles were observed throughout the Site.

3.0 OBJECTIVE

The survey was requested to satisfy Section 30 of the Occupational Health and Safety Act (OHSA) and Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (O.Reg. 278/05) in order to identify any designated and hazardous materials that may be present at the site.

4.0 SCOPE

The scope of work included the following activities:

- Preparation of a Health and Safety Plan (HASP) prior to conducting the field work;
- Inspection and sampling of potential hazardous materials within the buildings in areas that could be reasonably accessed by field personnel;
- Documenting the location of potential hazardous materials and estimating quantities;
- Submission of representative samples of potential hazardous materials for laboratory analysis; and the
- Preparation of a report summarizing the designated substances survey.

5.0 DESIGNATED SUBSTANCE SURVEY METHODOLOGY AND RESULTS

The field survey included the visual identification of potential designated substances and collection of samples for laboratory analysis to confirm the absence/presence of hazardous materials.

Designated substances in Ontario are defined in accordance with OHSA as a biological, chemical, or physical agent or combination thereof as a designated substance to which the exposure of a worker is prohibited, regulated, restricted, limited or controlled. Under section 30 of OHSA – "Duty of Project Owners", owners are required to determine if designated substances are present at a project site and disclose this information to project participants.

Designated substances that individuals are likely to be exposed to during construction projects include asbestos, lead, and silica. The Ontario Ministry of Labour provides guidance regarding these substances during construction in the following documents:

1. Ontario Regulation 278/05 (O.Reg. 278/05) – Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations.
2. Guideline – Silica on Construction Projects, Ministry of Labour 2004.
3. Guideline – Lead on Construction Projects, Ministry of Labour 2004.

The following sections provide an overview of the regulated designated substances and the potential presence of such substances at the site.

5.1 Acrylonitrile

Acrylonitrile is a chemical compound that exists as a clear pungent smelling liquid. Acrylonitrile is an important compound used in the production of other chemicals and products.

This designated substance is highly flammable and toxic. When burned it releases hazardous compounds into the air including hydrogen sulfide which has been used in chemical warfare.

Based on EHS^p observations Acrylonitrile was not identified at the site during the DSS.

5.2 Arsenic

Arsenic is chemical element that occurs in several different minerals in nature. Arsenic is used in a wide variety of applications including the strengthening of steel and cooper alloys, it is a valuable semiconductor, and has been used in the production of herbicides and pesticides.

Arsenic is a known human carcinogen and potent poison.

Based on EHS^p observations Arsenic was not identified at the site during the DSS.

5.3 Asbestos

Asbestos is a group of naturally occurring mineral silicates that has been used in the manufacture of building materials due to their desirable physical properties. Asbestos was used in a number of building materials such as roofing shingles, acoustic ceiling tile, vinyl flooring, cement products, insulation and other applications.

The association between the inhalation of asbestos fibres and various respiratory diseases is undisputed.

An asbestos containing material (ACM) survey was conducted by EHS^p as part of this DSS. Details of the ACM survey are presented in section 6.0.

5.4 Benzene

Benzene is natural compound found in petroleum based products such as gasoline and diesel fuels, asphalt and other hydrocarbon based products. It is used as a catalyst in various chemical processes including the production of plastics, rubber, drugs and pesticides.

Benzene is a known human carcinogen. Exposure to airborne benzene has been linked to various forms of leukemia.

Benzene was not observed at the site; however, there may be a potential exposure hazard to occupants, workers, or others if plastic or rubber materials are exposed to excessive heat.

5.5 Coke Oven Emissions

Coke Oven Emissions are the airborne by-product resulting from the distillation of low-ash and sulfur coal or coke. Coke is a useful fuel, chemical reducer, and is even used in the production of Scotch whisky.

Coke oven emissions potentially cause lung and skin cancers.

Based on EHS[p] observations coke oven emmissions are not present at the site.

5.6 Ethylene Oxide

Ethylene Oxide is a colourless gas with a faint sweet odour. This organic compound has various applications in the chemical engineering industry.

Ethylene oxide is a known human carcinogen and poison. Chronic exposure is known to cause genetic mutations (damage caused to DNA resulting in physical mutations).

Based on observations noted during the DSS and historical use of the site, ethylene oxide is not present.

5.7 Isocyanates

Isocyanates are any organic compound that contains a specific chemical functional group made up of a specific structure of one atom of nitrogen, carbon, and oxygen. The presence of this functional group gives chemical compounds unique properties that may be exploited in the production of polymers. Isocyanate containing polymers are used in the manufacture of paints, foams, and electrical insulation.

All isocyanates must be treated as highly hazardous with inhalation being the primary exposure hazard.

Based on observations noted during the DSS and historical use of the site, isocyanates are not present.

5.8 Lead

Lead is a chemical element that is a soft malleable metal. Lead is used in the production of a number of products including ammunition, batteries, pipes, and paint.

Lead is potent neurotoxin that accumulates in the body and results in brain and nervous system damage. The primary routes of exposure to lead include inhalation and ingestion.

EHS[p] conducted a lead-based paint sampling program as part of the DSS. The findings of this sampling program are presented in section 7.0.

5.9 Mercury

Mercury is a chemical element that is the only metal that exists in the liquid state at standard temperature and pressure. Elemental mercury has been used in a number of scientific instruments such as thermometers and barometers. In buildings liquid mercury has been used widely in thermostats and switch gear. Mercury vapour is used to produce light in fluorescent light tubes.

Chronic and acute inhalation of mercury vapour has been shown to have profound effects on the central nervous system including impaired cognitive skills, tremors, hallucinations, delirium, and suicidal tendency.

Mercury vapour is present in fluorescent light tubes observed throughout the Site.

5.10 Silica

Silica is the common name for the chemical compound silicon dioxide that occurs naturally as sand or quartz. Due to the hardness of silica it has been used as the primary raw material in products such as glass, ceramics, and cement.

Inhalation of silica is known to cause irreversible lung diseases including cancer and silicosis.

Silica is present in the concrete, terrazzo, mortar, brick, asphalt, plaster, drywall joint compound, foundation parging, vinyl flooring, ceramic tiles, and cementitious parging observed at the site. If the aforementioned materials are to be disturbed, appropriate precautions should be taken during disturbance.

5.11 Vinyl Chloride

Vinyl Chloride is a chemical compound that exists as a gas at standard temperature and pressure. It is used in the production of polyvinyl chloride (PVC) which is non-hazardous.

Vinyl chloride is a known human carcinogen and is known to cause liver damage.

Based on EHS^p observations vinyl chloride is not present at the site; however there is the potential that vinyl chloride could be released if PVC pipes, plastic, or wire coatings are burnt.

6.0 ASBESTOS CONTAINING MATERIALS SURVEY

6.1 General

The asbestos containing materials (ACMs) survey was conducted by EHS^p to satisfy Section 30 of the Occupational Health and Safety Act of Ontario and Ontario Regulation 278/05: Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations (O.Reg.278/05).

The ACMs survey was carried out in accordance with the measures prescribed in O.Reg.278/05.

6.2 Findings

EHS^p personnel completed site reconnaissance including visual inspection and sampling of potential ACMs on April 4, 2012. Based on the findings of the visual inspection, suspect materials were documented, collected and subsequently submitted for analysis at a 3rd party analytical laboratory.

As part of the ACMs survey, EHS^p collected one hundred and thirty-six (136) representative samples from fourty-two (42) distinct types of materials that were suspected to contain asbestos. Potential ACMs sampled during the DSS included plaster, vinyl flooring, cove base, mastic, drywall joint compound mortar, thermal insulation, caulking, roofing materials, foundation parging and other cementious materials. Sampled materials were submitted using a chain of custody to Steve Moody Micro Services, of Farmers Branch, Texas. The analytical results are presented in Appendix B and are summarized in the following table:

Table 1: Summary of Laboratory Analytical Results – Asbestos Containing Materials

Sample ID	Material	Location	% Asbestos Concentration	Friability	Condition	Photo #
PL-1-A	Plaster	Annex – 004A	None Detected	Non-Friable	Good	1
PL-1-B		Annex – 001	2% Chrysotile			
PL-1-C		Annex-Teaching Lounge	Not Analyzed			
PL-1-D		Annex – Waiting				
PL-1-E		Annex – 002				
PL-1-F		Annex – 003				
PL-1-G		Annex – 004				
VT-1-A	Vinyl Floor Tile – Grey 1'x1'	Annex - 001	None Detected	Non-Friable	Good	2
VT-1-B						
VT-1-C						
VT-2-A	Vinyl Floor Tile – White 1'x1'	Annex - 001	None Detected	Non-Friable	Good	3
VT-2-B						
VT-2-C						
CB-A	Cove Base	Annex - 001	None Detected	Non-Friable	Good	4
CB-B						
CB-C						
CT-1-A	Ceiling Tile – 1'x 1'	Annex - 001	None Detected	Non-Friable	Good	5
CT-1-B						
CT-1-C						
DC-1-A	Drywall Joint Compound	Annex - 001	2% Chrysotile	Non-Friable	Good	6
DC-1-B		Annex - Waiting	Not Analyzed			
DC-1-C		Annex – Girls Washroom				

Sample ID	Material	Location	% Asbestos Concentration	Friability	Condition	Photo #
DC-1-D		Annex - 004				
DC-1-E		Annex - 004				
MT-1-A	Mortar – Concrete Block	Annex – Teachers Lounge	None Detected	Non-Friable	Good	7
MT-1-B						
MT-1-C						
VT-3-A	Vinyl Floor Tile – Yellow 9"x9"	Annex - Waiting	10% Chrysotile	Non-Friable	Good	8
VT-3-B			Not Analyzed			
VT-3-C						
VT-4-A	Vinyl Floor Tile – Black	Annex - Waiting	10% Chrysotile	Non-Friable	Good	9
VT-4-B			Not Analyzed			
VT-4-C						
PR-1-A	Fitting Insulation - Parging	Annex – Mechanical Room	65% Chrysotile	Friable	Good	10
PR-1-B			Not Analyzed			
PR-1-C						
PS-1-A	Pipe Straight Insulation – Corrugated Cardboard	Annex – Mechanical Room	90% Chrysotile	Friable	Good	11
PS-1-B			Not Analyzed			
PS-1-C						
TP-A	Pipe Straight Insulation – Sweat Wrap Tar Paper	Annex – Mechanical Room	5% Chrysotile	Non-Friable	Good	None
TP-B			Not Analyzed			
TP-C						
VT-5-A	Vinyl Floor Tile – Blue 1'x1'	Annex - 002	None Detected	Non-Friable	Good	13
VT-5-B						
VT-5-C						
CA-1-A	Black Caulking	Annex – Entrance Roof	None Detected	Non-Friable	Good	14
CA-1-B						
CA-1-C						
RC-A	Roofing Core Sample	Annex – Main Roof	None Detected	Non-Friable	Good	15
RC-B						
RC-C						
AS-A	Asphalt Shingle	Annex –	None Detected	Non-	Good	16

Sample ID	Material	Location	% Asbestos Concentration	Friability	Condition	Photo #
AS-B AS-C		Entrance Roof		Friable		
CA-2-A CA-2-B CA-2-C	Beige Caulking	Annex – Exterior	None Detected	Non-Friable	Good	17
TC-A TC-B TC-C	Trowelled Cementious Material	Annex – Exterior Windows	None Detected	Non-Friable	Good	18
FP-1-A FP-1-B FP-1-C	Foundation Parging	Annex – Exterior	None Detected	Non-Friable	Good	19
MR-1-A MR-1-B MR-1-C	Brick Mortar	Annex – Exterior	None Detected	Non-Friable	Good	20
PS-2-A	Pipe Straight Insulation – Corrugated Cardboard	Main – Lunch Room 018	90% Chrysotile	Friable	Good	21
PS-2-B PS-2-C			Not Analyzed			
PR-2-A	Pipe Fitting Insulation - Parging	Main – Lunch Room 018	65% Chrysotile	Friable	Good	22
PR-2-B		Main – Kitchen	Not Analyzed			
PR-2-C		Main – Boiler Room				
PS-3-A	Pipe Straight Insulation – Sweat Wrap	Main - Kitchen	20% Chrysotile	Non-Friable	Good	None
PS-3-B PS-3-C			Not Analyzed			
CT-2-A	Ceiling Tile – 2'x4' – Deep Markings	Main - Library	2% Chrysotile	Non-Friable	Good	24
CT-2-B CT-2-C			Not Analyzed			
CT-3-A	Ceiling Tile –	Main -	2% Chrysotile	Non-	Good	25

Sample ID	Material	Location	% Asbestos Concentration	Friability	Condition	Photo #
CT-3-B	2'x4' – Light Markings	Library	Not Analyzed	Friable		
CT-3-C						
MS-1-A	Mastic – Glue on Tiles	Main - Library	2% Chrysotile	Non-Friable	Good	26
MS-1-B			Not Analyzed			
MS-1-C						
PL-2-A	Plaster on Concrete	Main – Basement Storage	2% Chrysotile	Non-Friable	Good	27
PL-2-B			Not Analyzed			
PL-2-C						
CT-4-A	Ceiling Tile – 2'x4'	Main – Ground Corridor	None Detected	Non-Friable	Good	28
CT-4-B						
CT-4-C						
PL-3-A	Plaster	Main – Ground Corridor	1% Chrysotile	Non-Friable	Good	29
PL-3-B		Main – 009	Not Analyzed			
PL-3-C		Main – 007				
PL-3-D		Main – 006				
PL-3-E		Main – 005				
PL-3-F		Main – 014				
PL-3-G		Main – 011				
CT-5-A	Ceiling Tile – 1'x1'	Main – 009	None Detected	Non-Friable	Good	30
CT-5-B						
CT-5-C						
VT-6-A	Vinyl Floor Tile – Grey 9"x9"	Main – 009	5% Chrysotile (Mastic)	Non-Friable	Good	31
VT-6-B			Not Analyzed			
VT-6-C						
VT-7-A	Vinyl Floor Tile – Grey 1'x1'	Main – 009	None Detected	Non-Friable	Good	None
VT-7-B						
VT-7-C						
VT-8-A	Vinyl Floor Tile – Grey/Blue 1'x1'	Main – 008	5% Chrysotile (Mastic)	Non-Friable	Good	33
VT-8-B			Not Analyzed			
VT-8-C						
VT-9-A	Vinyl Floor Tile	Main – 007	5% Chrysotile	Non-	Good	34

Sample ID	Material	Location	% Asbestos Concentration	Friability	Condition	Photo #
VT-9-B	– Grey Patterned		Not Analyzed	Friable		
VT-9-C						
VT-10-A	Vinyl Floor Tile – White Patterned 1'x1'	Main – 007	5% Chrysotile (Mastic)	Non-Friable	Good	35
VT-10-B			Not Analyzed			
VT-10-C						
VT-11-A	Vinyl Floor Tile – White 9"x9"	Main – 007	None Detected	Non-Friable	Good	36
VT-11-B			5% Chrysotile (Mastic)			
VT-11-C			Not Analyzed			
MB-1-A	Thermal Insulation	Main – Boiler	10% Amosite 5% Chrysotile	Friable	Good	37
MB-1-B			Not Analyzed			
MB-1-C						
CT-6-A	Ceiling Tile – 1'x1'	Main – 007	None Detected	Non-Friable	Good	38
CT-6-B						
CT-6-C						
CT-7-A	Ceiling Tile – 1'x1'	Main – 006	2% Amosite 3% Chrysotile	Non-Friable	Good	39
CT-7-B			Not Analyzed			
CT-7-C						
VT-12-A	Vinyl Floor Tile – Beige 1'x1'	Main – 006	3% Chrysotile	Non-Friable	Good	40
VT-12-B			Not Analyzed			
VT-12-C						
VT-13-A	Vinyl Floor Tile – Blue 1'x1'	Main – 005	None Detected	Non-Friable	Good	41
VT-13-B						
VT-13-C						
FP-2-A	Foundation Parging	Main – Exterior	None Detected	Non-Friable	Good	32
FP-2-B						
FP-2-C						

Based on the analytical results the following building materials were reported to contain 0.5% Asbestos or greater and therefore are considered ACM in accordance with O.Reg 278/05:

ANNEX BUILDING

1. **Plaster** – Non-friable asbestos containing plaster is located throughout walls and ceilings at the Site. See Photo 1.

2. **Drywall Joint Compound** – Non-Friable asbestos containing drywall joint compound is located throughout drywall at the Site. Drywall was observed on interior pillars. See Photo 4.

3. **9"x 9" Vinyl Floor Tile** – Approximately 1,220 square feet were observed throughout the Site in the waiting room, storage room, and room 002. See Photo 8.

4. **Black Vinyl Floor Tile –** Approximately 100 square feet were observed throughout the Site in the waiting room, storage room, and room 002. See Photo 9.

5. **Pipe Fitting Parging Insulation** – Approximately 45 fittings insulated with asbestos containing parging were observed in the mechanical room. See Photo 10.

6. **Pipe Straight Insulation, Corrugated Cardboard (Aircell)** – Approximately 10 linear feet of asbestos containing aircell insulation was observed in the mechanical room. See Photo 11.

7. **Pipe Straight Insulation, Sweat Wrap** – Approximately 20 linear feet of asbestos containing sweat wrap insulation was observed in the mechanical room.

MAIN BUILDING

1. **Pipe Straight Insulation, Corrugated Cardboard (Aircell)** – Approximately 490 linear feet of friable asbestos containing aircell insulation was observed throughout the Site in lunch room 018 and adjacent corridor, kitchen, library, 002, lunch room 017, gymnasium, room outside of fan room, boiler room and adjacent rooms, 009, 008, 006, 006A, and 005. See Photo 21.

2. **Pipe Fitting Parging Insulation** – Approximately 95 fittings insulated with friable asbestos containing parging were observed throughout the Site in lunch room 018 and adjacent corridor, kitchen, library, 002, lunch room 017 and adjacent corridor, gymnasium, room outside of fan room, boiler room and adjacent rooms, and 005. See Photo 22.

3. **Pipe Straight Insulation, Sweat Wrap –** Approximately 45 linear feet of non-friable asbestos containing sweat wrap was observed throughout the Site in lunch room 018 and adjacent corridor and, the kitchen.

4. **Ceiling Tile, 2'x 4' Deep Markings** – Approximately 695 square feet of non-friable asbestos containing ceiling tile was observed in the library. See Photo 24.

5. **Ceiling Tile, 2'x 4' Light Markings** – Approximately 695 square feet of non-friable asbestos containing ceiling tile was observed in the library. See Photo 25.

6. **Mastic, Glue-on Ceiling Tile** – Approximately 1400, 2 inch diameter deposits of residual non-friable glue-on ceiling tile mastic is located throughout the library ceiling space. See Photo 26.

7. **Plaster on Concrete** – Approximately 680 square feet of non-friable asbestos containing plaster is located in the basement storage room adjacent to lunch room 018. See Photo 27.

8. **Plaster** – Non-friable asbestos containing plaster is located throughout walls and ceilings at the Site. See Photo 29.

9. **9"x 9" Grey Vinyl Floor Tile Mastic** – Approximately 4,527 square feet of non-friable asbestos containing floor tile mastic is located throughout the Site in rooms 009, 007, 005, 014, 013, 012, 011, and 010. See Photo 31.

10. **1'x 1' Grey/Blue Vinyl Floor Tile Mastic** – Approximately 621 square feet of non-friable asbestos containing floor tile mastic is located in room 008. See Photo 33.

11. **Grey Patterned Vinyl Floor Tile Mastic** – Approximately 110 square feet of non-friable asbestos containing floor tile mastic is located in room 007. See Photo 34.

12. **1'x 1' White Vinyl Floor Tile Mastic** – Approximately 80 square feet of non-friable asbestos containing floor tile mastic is located in room 007. See Photo 35.

13. **9"x 9" White Vinyl Floor Tile Mastic** – Approximately 15 square feet of non-friable asbestos containing floor tile mastic is located in room 007. See Photo 36.

14. **Boiler Insulation, Mag Block** – Approximately 30 square feet of friable asbestos containing mag block insulation is located on the boiler duct work in the boiler room. See Photo 37.

15. **1'x 1' Ceiling Tile** – Approximately 210 square feet of non-friable asbestos containing ceiling tile is located in room 006. See Photo 39.

16. **1'x 1' Beige Vinyl Floor Tile**– Approximately 35 square feet of non-friable asbestos containing floor tile is located throughout the Site in rooms 006 and 007. See Photo 40.

Based on the visual inspection the following potential asbestos containing materials are present at the main building.

1. Roofing materials including asphalt shingles or sheet and felts.
2. Ceiling panels located in the gymnasium.
3. Caulking.
4. Mastic located above glue-on ceiling tiles.
5. Mortars.

Based on the visual inspection potential asbestos containing vermiculite may be present in concrete block walls. This material is one of the more hazardous potential asbestos containing building materials as asbestos fibres are not bound in the material. The insulation should be reviewed under controlled conditions during asbestos abatement.

The aforementioned potential ACMs were observed to be in good condition at the time of the DSS. These materials were not sampled to preserve the integrity of the site or they were inaccessible during the DSS. They should be sampled prior to disturbance or demolition, or may be treated as ACM without further assessment.

This assessment does not account for any potential ACMs that were inaccessible during the DSS. Inaccessible locations of potential ACMs include but are not limited to wall cavities, ceiling cavities, and

materials enclosed by flooring or other materials. Additional assessment of ACMs may be required prior renovations, alterations, or demolition of the site.

7.0 LEAD BASED PAINT SURVEY

7.1 General

The lead based paint survey was conducted by EHS[p] to satisfy Section 30 of the Occupational Health and Safety Act of Ontario. The Federal Government has been limiting the concentration of lead allowed in manufactured paints since the 1970's. Painted surfaces that were applied prior to the 1980's likely contain elevated concentrations of lead. Exterior painted surfaces applied prior to the 1990's potentially contain elevated concentrations of lead. General industry practice is to categorize any painted surface that contains 0.5% (5000 ppm) or greater concentration of elemental lead as a lead based paint. Paint that contains less than 0.5% lead is considered lead containing.

7.2 Findings

EHS[p] personnel completed the site reconnaissance including visual inspection and sampling of potential lead based paints. As part of the lead based paint survey ten representative paint chip samples were collected for lead characterization. The painted surfaces that were sampled included walls, ceiling, flooring, ducting, and other painted surfaces.

Sampled materials were submitted using a chain of custody to Steve Moody Micro Services, of Farmers Branch, Texas. The analytical results are presented in appendix B and are summarized in the following table:

Table 2: Summary of Laboratory Analytical Results – Lead Paint

Sample ID	Colour (Painted Surface)	Location	Lead Concentration % (ppm)	Condition	Photo #
LBP-A	Beige Wall Paint	Annex – Room 004A	0.1% (1,128 ppm)	Good	43
LBP-B	White Ceiling Paint	Annex – Waiting Room	0.1% (1,300 ppm)	Good	44
LBP-C	Grey Floor Paint	Annex – Mechanical Room	0.1% (1,149 ppm)	Good	45
LBP-D	White Wall Paint	Annex – Room 004	0.02% (153.7 ppm)	Good	46
LBP-E	Beige Wall Paint	Main – Kitchen	0.28% (2,814 ppm)	Good	47
LBP-F	Yellow Duct Paint	Main – Lunch 017	0.24% (2,465 ppm)	Good	None
LBP-G	Grey Floor Paint	Main – Boiler Room	0.2% (1,955 ppm)	Good	49
LBP-H	Yellow Window Frame Paint	Main – Room 006	0.1% (1,261 ppm)	Good	50
LBP-I	Blue Ladder Paint	Main – Room 014	0.14% (1,444 ppm)	Good	51
LBP-J	Yellow Brick Paint	Main – Room 004	0.1% (1,243 ppm)	Good	52

Based on the analytical results lead containing paint was identified throughout the site. Please note that lead is likely present in the solder of copper pipes and this material was not sampled.

8.0 HAZARDOUS MATERIALS SURVEY

8.1 General

The field survey included the visual identification of materials that are potentially hazardous to site occupants, workers, and others.

The following sections provide an overview of the potential hazardous materials of interest and the potential presence of such substances at the site.

8.2 Polychlorinated Biphenyls

8.2.1 General

Polychlorinated Biphenyls (PCBs) are a group of man-made organic compounds made up of a specific structure that includes two benzene rings or phenyl functional groups. Commercial production began in the 1920's and they were used primarily as coolants and insulating fluids used widely in transformers and capacitors. The removal and disposal of PCBs is governed by Federal Regulation SOR/2008-273, PCBs Regulations, made under the Canadian Environmental Protection Act.

PCBs interfere with hormone production in people causing toxic and mutagenic affects. PCBs are a persistent pollutant and must not be released into the environment.

8.2.2 Findings

During the DSS a representative amount of light ballasts were reviewed. PCB containing light ballasts were not identified however there is still the potential that PCB containing light ballasts are present at the Site.

8.3 Mould

8.3.1 General

Mould is a term that generally refers to a specific group of fungi. Mould growth on building materials can impact air quality because toxigenic or allergenic constituents can be dispersed in the air and may be inhaled. Reactions to mould vary depending on physical health, genetics, and age. Common symptoms of mould exposure include cough, congestion, eye irritation, runny nose, headache, fatigue, and vexation of asthma. In some cases, mould is known or suspected to cause serious illness.

8.3.2 Findings

Based on EHS^{p} observations visible potential mould growth was observed on pipe insulation located in the Main building in the room just outside the fan room. Evidence of moisture infiltration through building materials including the presence of residual salts on walls, carpet staining, and significant paint delamination were observed throughout the basement at the Site. This may be an indication that moisture proofing elements of the main building foundation have degraded. The areas that are most affected by water infiltration include the library, garbage room, and shower room adjacent to the boiler room. Additionally water staining was observed on the gymnasium ceiling and the ceiling in room 007. This

moisture staining may indicate that roofing systems at the Site have degraded. Wetting of building materials is the primary cause of mould contamination in buildings. The conditions at the Site are potentially hazardous to occupants, workers, or others at the Site.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The following recommendations are based on the DSS conducted by EHS[p] at 2720 Richmond Road, Ottawa, Ontario on April 4, 2012:

General

The Occupational Health and Safety Act require building owners and their agents to notify all employees, and contractors of the presence of designated substances at a project site. Additional assessment of designated substances may be required prior to renovations, alterations, or demolition of the site.

Asbestos

The following recommendations are based on the requirements of Ontario Regulation 278/05 – Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations:

1. Provide written notice to any occupant detailing ACM discovered at the Site.

2. Provide a copy of this report or applicable portions of this report to maintenance personnel or contractors that work in close vicinity to ACM.

3. The building owner or their agents must inspect the condition of ACM at reasonable intervals. A reasonable interval is not defined by the regulation.

4. This record must be updated when there are any changes to the ACM inventory or at least once every 12 months if there are no changes.

5. Asbestos waste generated by asbestos abatement activities must be packaged, labelled, and disposed of in accordance with Ontario Regulation 347/90 (as amended).

6. Potential asbestos containing concrete block insulation should be inspected during asbestos abatement activities within the Annex Building at the Site.

7. All asbestos containing materials must be removed from the Site to the highest extent practicable prior to demolition.

8. The building owner must institute and maintain a training program for the instruction of every worker employed who is likely to work in close proximity and may disturb ACM. The minimum requirements for this training program include the following:

    - Hazards of Asbestos Exposure;
    - Use, care, and disposal of protective equipment and clothing to be used and personal hygiene; and
    - Work practices and procedures to be used with ACM.

Benzene

Excessive heat must not be used on wire coatings, plastic materials, or PVC as heat may release benzene. If these practices cannot be avoided then implement control measures appropriate for the control of benzene prescribed in Ontario Regulation 490/09 – Designated Substances. This regulation is exempt from construction projects but provides useful guidance on personal protection when a specific regulation or guideline for a specific designated substance is not available for the construction industry.

Lead

Measures prescribed in the Ministry of Labour's Guideline titled "Lead on Construction Projects" should be followed during the disturbance of any painted surface.

Mercury

Mercury containing fluorescent light tubes must be carefully removed and containerized for disposal in accordance with Ontario Regulation 347/09 (as amended) when removed.

Mould

Investigate and correct moisture issues at the Site and remove any mould impacted building materials and debris in accordance with the "Mould Guidelines for the Canadian Construction Industry" (Canadian Construction Association, Document CCA 82 as amended). Ventilation duct cleaning should be included in the scope of work for mould remediation. Retain a building science professional to investigate the integrity of moisture proofing elements of the main building.

Polychlorinated Biphenyls (PCBs)

Any PCB containing ballasts discovered at the Site should be separated from the light fixtures and containerized when removed in accordance with Federal Regulation SOR/2008-273 – PCB Regulations.

Silica

Measures prescribed in the Ministry of Labour's Guideline titled "Silica on Construction Projects", should be followed during the disturbance of any silica containing material

Vinyl Chloride

Excessive heat must not be used on wire coatings, plastic materials, or PVC as heat may release vinyl chloride. If these practices cannot be avoided then implement control measures appropriate for the control of vinyl chloride prescribed in Ontario Regulation 490/09 – Designated Substances. This regulation is exempt from construction projects but provides useful guidance on protection when a specific regulation or guideline for a specific designated substance is not available.

10.0 LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS^p in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS^P assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS^P's liability. EHS^P's liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Photolog

Designated Substances Survey
2720 Richmond Road
Ottawa, ON
EHS[p] Project No.: 04-0068-12-001

Photo 1:	Representative view of asbestos containing plaster, Annex Building, Room 004, Sample Set PL-1-X

Photo 2:	View of Representative Vinyl Floor Tile, 1'x 1' Grey, Annex Building, Room 001, Sample Set: VT-1-X.

Photo 3:	View of Representative Vinyl Floor Tile, 1'x 1' White, Annex Building, Room 001, Sample Set: VT-1-X.

Photo 4:	View of Representative Cove Base, Annex Building, Room 001, Sample Set: CB-1-X.

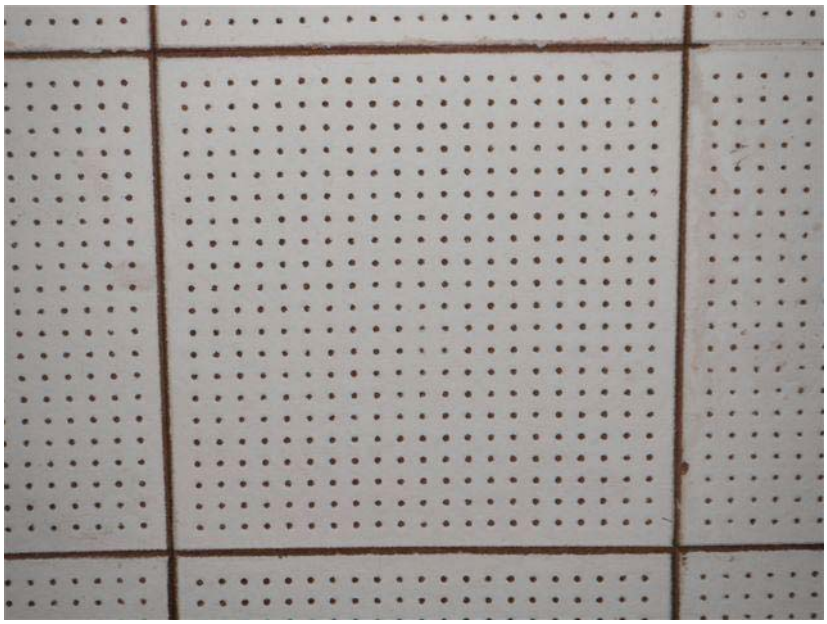

Photo 5:	View of Representative 1'X 1' Ceiling Tile, Annex Building, Room 001, Sample Set: CT-1-X.

Photo 6:	View of Representative Drywall with Asbestos Containing Drywall Joint Compound, Annex Building, Room 001, Sample Set: DC-1-X. Pillars within the Annex Building are constructed with drywall.

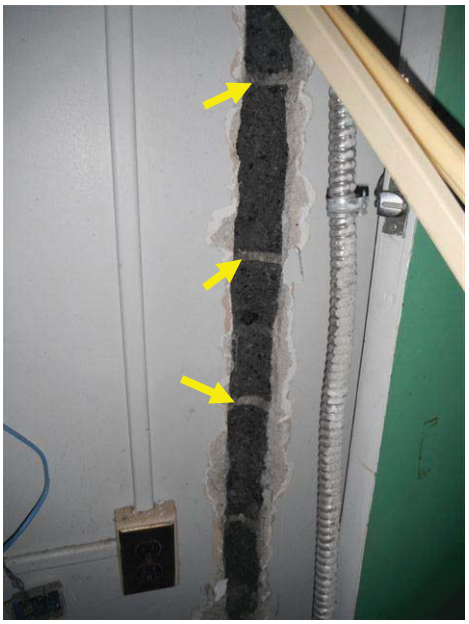

Photo 7:	View of Representative Concrete Block Mortar, Annex Building, Teachers Lounge, Sample Set: MT-1-X.

Photo 8:	View of Representative Asbestos Containing 9”x 9” Vinyl Floor Tile, Annex Building, Waiting Room, Sample Set: VT-3-X.

Photo 9:	View of Representative Asbestos Containing Black Vinyl Floor Tile, Annex Building, Waiting Room, Sample Set: VT-4-X.

Photo 10:	View of Representative Pipe Fitting Parging Insulation, Annex Building, Mechanical Room, Sample Set: PR-1-X.

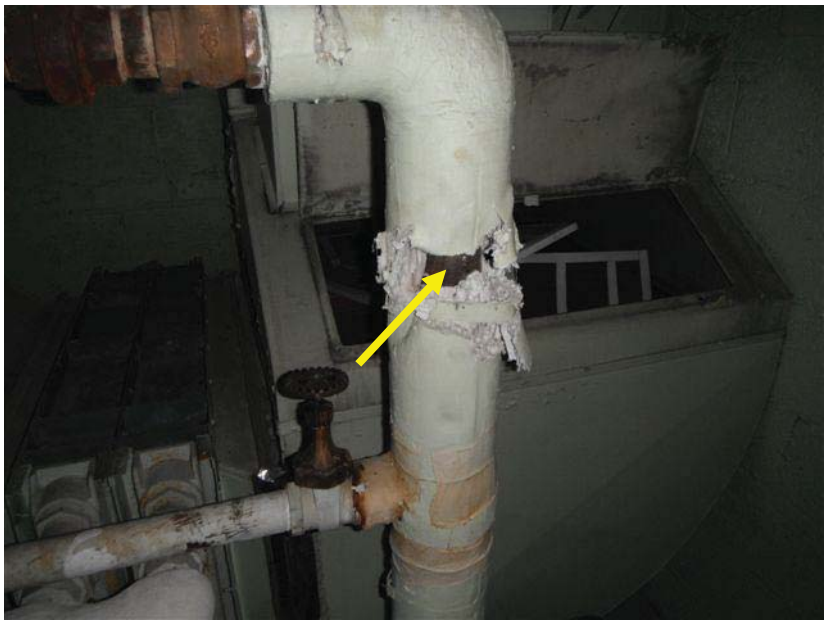

Photo 11:	View of Representative Asbestos Containing Pipe Straight Corrugated Cardboard Insulation, Annex Building, Mechanical Room, Sample Set: PS-1-X.

No Photo Available

Photo 12:	Asbestos Containing Pipe Straight Sweat Wrap Insulation, Annex Building, Mechanical Room, Sample Set: TP-1-X.

Photo 13:	View of Representative Vinyl Floor Tile, Annex Building, Room 002, Sample Set: VT-5-X.

Photo 14:	View of Representative Black Caulking, Annex Building, Exterior, Sample Set: CA-1-X.

Photo 15:	View of Representative Annex Building Main Roof (Core Sampled), Annex Building, Exterior, Sample Set: RC-X.

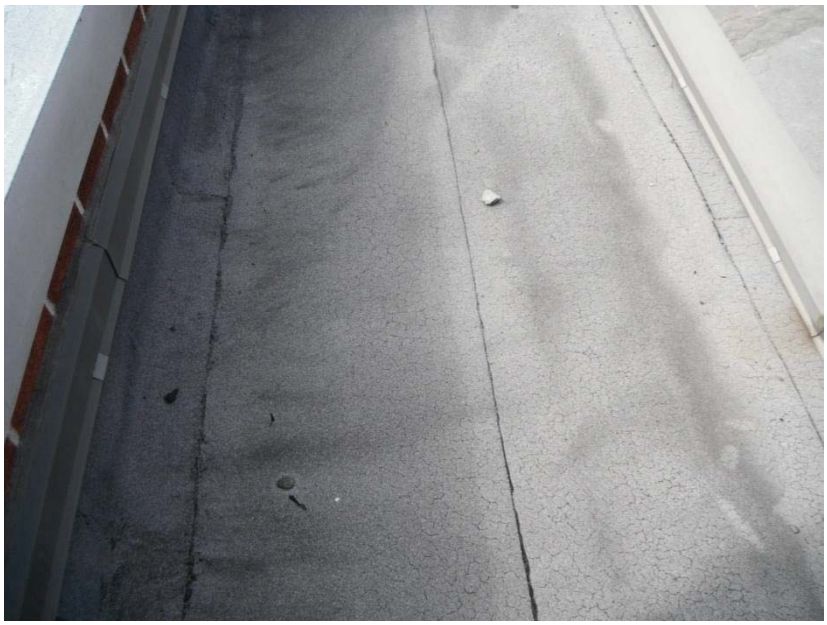

Photo 16:	View of Representative Asphalt Shingles, Annex Building, Entrance Roof, Sample Set: AS-X.

Photo 17:	View of Representative Beige Caulking, Annex Building, Exterior, Sample Set: CA-2-X.

Photo 18:	View of Representative Trowelled Cementious Material, Annex Building, Exterior, Sample Set: TC-X.

Photo 19:	View of Representative Foundation Parging, Annex Building, Exterior, Sample Set: FP-1-X.

Photo 20:	View of Representative Brick Mortar, Annex Building, Exterior, Sample Set: MR-1-X.

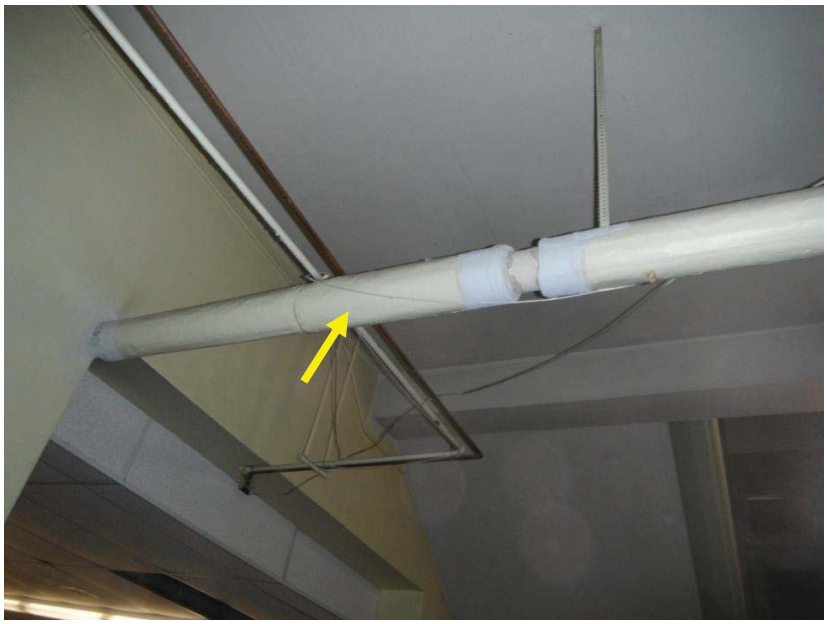

Photo 21:	View of Representative Asbestos Containing Pipe Straight Corrugated Cardboard Insulation, Main Building, Lunch Room 018, Sample Set: PS-2-X.

Photo 22:	View of Representative Pipe Fitting Parging Insulation, Main Building, Lunch Room 018, Sample Set: PR-2-X.

No Photo Available

Photo 23:	Asbestos Containing Pipe Straight Sweat Wrap Insulation, Main Building, Mechanical Room, Sample Set: PS-3-X.

Photo 24:	View of Representative Asbestos Containing Ceiling Tile, 2'x 4'Deep Markings, Main Building, Library, Sample Set: CT-2-X.

Photo 25:	View of Representative Asbestos Containing Ceiling Tile, 2'x 4'Light Markings, Main Building, Library, Sample Set: CT-3-X.

Photo 26:	View of Representative Asbestos Containing Ceiling Tile Mastic, Main Building, Library Ceiling Space, Sample Set: MS-1-X.

Photo 27:	View of Representative Asbestos Containing Plaster located on Concrete, Main Building, Storage Room, Sample Set: PL-2-X.

Photo 28:	View of Representative Ceiling Tile, 2'x 4', Main Building, Ground Floor Corridor, Sample Set: CT-4-X.

Photo 29:	View of Representative Asbestos Containing Plaster, Main Building, Ground Floor Corridor, Sample Set: PL-3-X.

Photo 30:	View of Representative Ceiling Tile, 1'x 1', Main Building, Room 009, Sample Set: CT-5-X.

Photo 31:	View of Representative 9”x 9” Grey Vinyl Floor Tile with Asbestos Containing Mastic, Main Building, Room 009, Sample Set: VT-6-X.

No Photo Available

Photo 32:	1’X 1’ Grey Vinyl Floor Tile, Main Building, Room 009, Sample Set: VT-7-X.

Photo 33:	View of Representative 1'X 1' Grey/Blue Vinyl Floor Tile with Asbestos Containing Mastic, Main Building, Room 008, Sample Set: VT-8-X.

Photo 34:	View of Representative 1'X 1' Grey Patterned Vinyl Floor Tile with Asbestos Containing Mastic, Main Building, Room 007, Sample Set: VT-9-X.

Photo 35:	View of Representative 1'X 1' White Patterned Vinyl Floor Tile with Asbestos Containing Mastic, Main Building, Room 007, Sample Set: VT-10-X.

Photo 36:	View of Representative 9" x 9" White Vinyl Floor Tile with Asbestos Containing Mastic, Main Building, Room 007, Sample Set: VT-11-X.

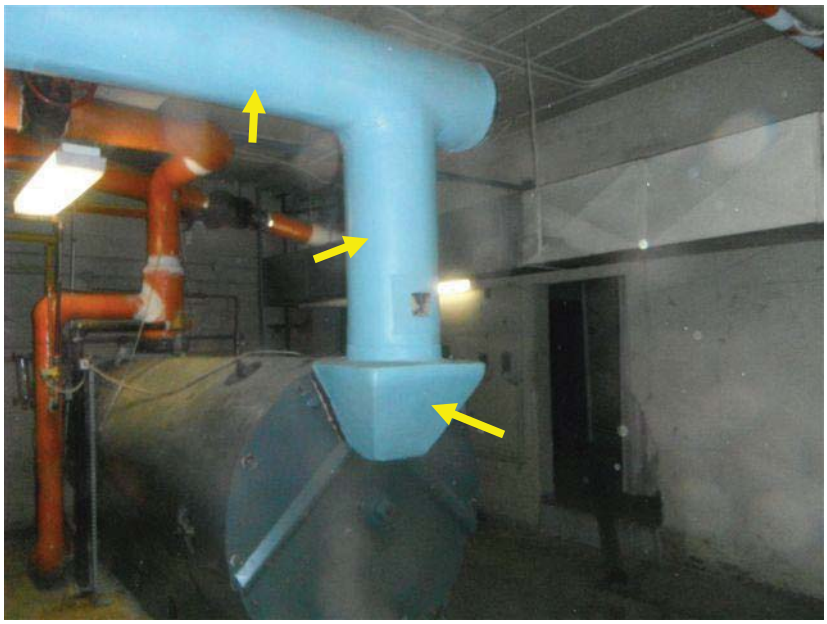

Photo 37:	View of Representative Asbestos Containing Thermal Insulation (Mag Block), Main Building, Boiler Room, Sample Set: MB-1-X.

Photo 38:	View of Representative 1'x 1' Ceiling Tile, Main Building, Room 007, Sample Set: CT-6-X.

Photo 39:	View of Representative Asbestos Containing 1'x 1' Ceiling Tile, Main Building, Room 006, Sample Set: CT-6-X.

Photo 40:	View of Representative Asbestos Containing 1'x 1' Beige Vinyl Floor Tile, Main Building, Room 006, Sample Set: VT-12-X.

Photo 41:	View of Representative 1'x 1' Blue Vinyl Floor Tile, Main Building, Room 005, Sample Set: VT-13-X.

Photo 42:	View of Representative Foundation Parging, Main Building, Exterior, Sample Set: FP-2-X.

Photo 43:	View of Representative Lead Containing Beige Wall Paint, Annex Building, Room 004A, Sample: LBP-A.

Photo 44:	View of Representative Lead Containing White Ceiling Paint, Annex Building, Waiting Room, Sample: LBP-B.

Photo 45:	View of Representative Lead Containing Grey Floor Paint, Annex Building, Mechanical Room, Sample: LBP-C.

Photo 46:	View of Representative Lead Containing White Wall Paint, Annex Building, Room 004, Sample: LBP-D.

Photo 47:	View of Representative Lead Containing Beige Wall Paint, Main Building, Kitchen, Sample: LBP-E.

No Photo Available

Photo 48:	Lead Containing Yellow Duct Paint, Main Building, Lunch Room 017, Sample: LBP-F.

Photo 49:	View of Representative Lead Containing Grey Floor Paint, Annex Building, Room 004, Sample: LBP-G.

Photo 50:	View of Representative Lead Containing Yellow Window Frame Paint, Main Building, Room 006, Sample: LBP-H.

Photo 51:	View of Representative Lead Containing Blue Ladder Paint, Main Building, Room 014, Sample: LBP-I.

Photo 52:	View of Representative Lead Containing Yellow Wall Paint, Main Building, Room 004, Sample: LBP-J.

Photo 53:	View of Representative Potential Asbestos Containing Ceiling Mesh-like Panels, Main Building, Gymnasium. Inaccessible during initial assessment.

Photo 54:	View of Moisture Impacted Carpet, Evidence of Moisture Infiltration, Main Building, Library.

Photo 55:	View of Moisture Impacted Wall, Evidence of Moisture Infiltration, Main Building, Library.

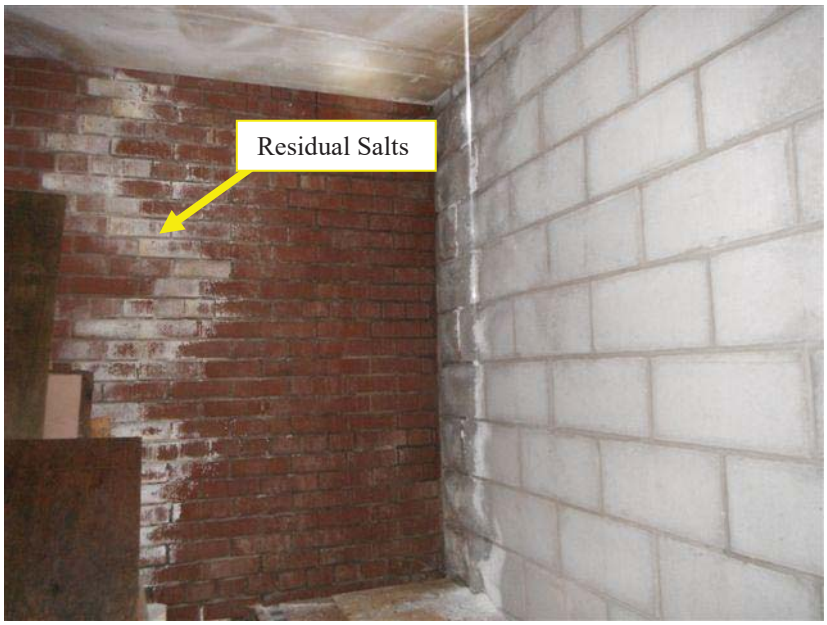

Photo 56:	View of Moisture Impacted Wall, Evidence of Moisture Infiltration, Residual Salts Transported by Moisture Through Porous Materials, Main Building, Garbage Room.

Photo 57:	View of Moisture Impacted Wall, Adjacent Crawlspace is filled with Water, Main Building, Boiler Room.

Appendix B
Analytical Results

Designated Substances Survey
2720 Richmond Road
Ottawa, ON
EHS^{p} Project No.: 04-0068-12-001

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
PL-1-A	Plaster, Annex, 004A	None Detected - Base Plaster None Detected - Top Plaster
PL-1-B	Plaster, Annex, 001	2% Chrysotile - Base Plaster None Detected - Top Plaster
PL-1-C	Plaster, Annex, Teaching Lounge	Not Analyzed - Positive Stop
PL-1-D	Plaster, Annex, Waiting	Not Analyzed - Positive Stop
PL-1-E	Plaster, Annex, 002	Not Analyzed - Positive Stop
PL-1-F	Plaster, Annex, 003	Not Analyzed - Positive Stop
PL-1-G	Plaster, Annex, 004	Not Analyzed - Positive Stop
VT-1-A	1' x 1' Vinyl Floor Tile (Grey), Annex, 001	None Detected - Floor Tile None Detected - Yellow Mastic None Detected - Black Mastic
VT-1-B	1' x 1' Vinyl Floor Tile (Grey), Annex, 001	None Detected - Floor Tile None Detected - Yellow Mastic None Detected - Black Mastic
VT-1-C	1' x 1' Vinyl Floor Tile (Grey), Annex, 001	None Detected - Floor Tile None Detected - Yellow Mastic None Detected - Black Mastic
VT-2-A	1' x 1' Vinyl Floor Tile (White), Annex, 001	None Detected - Floor Tile None Detected - Black Mastic
VT-2-B	1' x 1' Vinyl Floor Tile (White), Annex, 001	None Detected - Floor Tile None Detected - Black Mastic
VT-2-C	1' x 1' Vinyl Floor Tile (White), Annex, 001	None Detected - Floor Tile None Detected - Black Mastic
CB-A	Cove Base, Annex, 001	None Detected - Cove Base None Detected - Yellow Mastic
CB-B	Cove Base, Annex, 001	None Detected - Cove Base None Detected - Yellow Mastic

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
CB-C	Cove Base, Annex, 001	None Detected - Cove Base None Detected - Yellow Mastic
CT-1-A	1' x 1' Ceiling Tile, Annex, 001	None Detected - Acoustic Tile None Detected - Brown Mastic
CT-1-B	1' x 1' Ceiling Tile, Annex, 001	None Detected - Acoustic Tile None Detected - Brown Mastic
CT-1-C	1' x 1' Ceiling Tile, Annex, 001	None Detected - Acoustic Tile None Detected - Brown Mastic
DC-1-A	Drywall Joint Compound, Annex, 001	2% Chrysotile - Joint Compound
DC-1-B	Drywall Joint Compound, Annex, Waiting	Not Analyzed - Positive Stop
DC-1-C	Drywall Joint Compound, Annex, Girls' Washroom	Not Analyzed - Positive Stop
DC-1-D	Drywall Joint Compound, Annex, 004	Not Analyzed - Positive Stop
DC-1-E	Drywall Joint Compound, Annex, 004	Not Analyzed - Positive Stop
MT-1-A	Mortar, Concrete Block, Annex, Teachers' Lounge	None Detected - Mortar
MT-1-B	Mortar, Concrete Block, Annex, Teachers' Lounge	None Detected - Mortar
MT-1-C	Mortar, Concrete Block, Annex, Teachers' Lounge	None Detected - Mortar
VT-3-A	9" x 9" Vinyl Floor Tile (Yellow), Annex, Waiting	10% Chrysotile - Floor Tile No Mastic
VT-3-B	9" x 9" Vinyl Floor Tile (Yellow), Annex, Waiting	Not Analyzed - Positive Stop
VT-3-C	9" x 9" Vinyl Floor Tile (Yellow), Annex, Waiting	Not Analyzed - Positive Stop
VT-4-A	Vinyl Floor Tile (Black), Annex, Waiting	10% Chrysotile - Floor Tile
VT-4-B	Vinyl Floor Tile (Black), Annex, Waiting	Not Analyzed - Positive Stop
VT-4-C	Vinyl Floor Tile (Black), Annex, Waiting	Not Analyzed - Positive Stop
PR-1-A	Fitting Insulation, Parging, Annex, Mechanical Room	65% Chrysotile - Thermal Insulation

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
PR-1-B	Fitting Insulation, Parging, Annex, Mechanical Room	Not Analyzed - Positive Stop
PR-1-C	Fitting Insulation, Parging, Annex, Mechanical Room	Not Analyzed - Positive Stop
PS-1-A	Pipe Straight Insulation, Corrugated Cardboard, Annex, Mechanical Room	90% Chrysotile - Thermal Insulation
PS-1-B	Pipe Straight Insulation, Corrugated Cardboard, Annex, Mechanical Room	Not Analyzed - Positive Stop
PS1-C	Pipe Straight Insulation, Corrugated Cardboard, Annex, Mechanical Room	Not Analyzed - Positive Stop
TP-A	Pipe Straight Insulation, Sweat Wrap Tar Paper, Annex, Mechanical Room	5% Chrysotile - Black Wrap None Detected - Tan Wrap
TP-B	Pipe Straight Insulation, Sweat Wrap Tar Paper, Annex, Mechanical Room	Not Analyzed - Positive Stop
TP-C	Pipe Straight Insulation, Sweat Wrap Tar Paper, Annex, Mechanical Room	Not Analyzed - Positive Stop
VT-5-A	1' x 1' Vinyl Floor Tile (Blue), Annex, 002	None Detected - Floor Tile None Detected - Black Mastic
VT-5-B	1' x 1' Vinyl Floor Tile (Blue), Annex, 002	None Detected - Floor Tile None Detected - Black Mastic
VT-5-C	1' x 1' Vinyl Floor Tile (Blue), Annex, 002	None Detected - Floor Tile None Detected - Black Mastic
CA-1-A	Caulking (Black), Annex, Roof	None Detected - Caulking
CA-1-B	Caulking (Black), Annex, Roof	None Detected - Caulking
CA-1-C	Caulking (Black), Annex, Roof	None Detected - Caulking
RC-A	Roofing Core Sample, Annex, Main Roof	None Detected - Roof Membrane None Detected - Roofing Tars None Detected - Underlayment

PLM Summary Report

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Client : EHS Partnerships Ltd. - Ottawa, ON
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EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

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On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
RC-B	Roofing Core Sample, Annex, Main Roof	None Detected - Roof Membrane None Detected - Roofing Tars
RC-C	Roofing Core Sample, Annex, Main Roof	None Detected - Roof Membrane None Detected - Roofing Tars
AS-A	Asphalt Shingle, Annex, Entrance Roof	None Detected - Roofing Shingle
AS-B	Asphalt Shingle, Annex, Entrance Roof	None Detected - Roofing Shingle
AS-C	Asphalt Shingle, Annex, Entrance Roof	None Detected - Roofing Shingle
CA-2-A	Caulking (Beige), Annex, Exterior	None Detected - Caulking
CA-2-B	Caulking (Beige), Annex, Exterior	None Detected - Caulking
CA-2-C	Caulking (Beige), Annex, Exterior	None Detected - Caulking
TC-A	Troweled Cementitious Material, Annex, Exterior Windows	None Detected - Cementious Material
TC-B	Troweled Cementitious Material, Annex, Exterior Windows	None Detected - Cementious Material
TC-C	Troweled Cementitious Material, Annex, Exterior Windows	None Detected - Cementious Material
FP-1-A	Foundation Parging, Annex, Exterior	None Detected - Parging
FP-1-B	Foundation Parging, Annex, Exterior	None Detected - Parging
FP-1-C	Foundation Parging, Annex, Exterior	None Detected - Parging
PS-2-A	Pipe Straight Insulation, Corrugated Cardboard, Main, Lunch Room 018	90% Chrysotile - Thermal Insulation None Detected - Cotton Wrap
PS-2-B	Pipe Straight Insulation, Corrugated Cardboard, Main, Lunch Room 018	Not Analyzed - Positive Stop
PS-2-C	Pipe Straight Insulation, Corrugated Cardboard, Main, Lunch Room 018	Not Analyzed - Positive Stop
PR-2-A	Pipe Fitting Insulation, Parging, Main, Lunch Room 018	65% Chrysotile - Thermal Insulation
PR-2-B	Pipe Fitting Insulation, Parging, Main, Kitchen	Not Analyzed - Positive Stop

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
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Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
PR-2-C	Pipe Fitting Insulation, Parging, Main, Boiler Room	Not Analyzed - Positive Stop
PS-3-A	Pipe Straight Insulation, Sweat Wrap, Main, Kitchen	None Detected - Tan Insulation 20% Chrysotile - White Insulation None Detected - Cotton Wrap
PS-3-B	Pipe Straight Insulation, Sweat Wrap, Main, Kitchen	Not Analyzed - Positive Stop
PS-3-C	Pipe Straight Insulation, Sweat Wrap, Main, Kitchen	Not Analyzed - Positive Stop
CT-2-A	2' x 4' Ceiling Tile (Deep Markings), Main, Library	2% Chrysotile - Acoustic Tile
CT-2-B	2' x 4' Ceiling Tile (Deep Markings), Main, Library	Not Analyzed - Positive Stop
CT-2-C	2' x 4' Ceiling Tile (Deep Markings), Main, Library	Not Analyzed - Positive Stop
CT-3-A	2' x 4' Ceiling Tile (Light Markings), Main, Library	2% Chrysotile - Acoustic Tile
CT-3-B	2' x 4' Ceiling Tile (Light Markings), Main, Library	Not Analyzed - Positive Stop
CT-3-C	2' x 4' Ceiling Tile (Light Markings), Main, Library	Not Analyzed - Positive Stop
MS-1-A	Mastic, Glue on Tiles, Main, Library	2% Chrysotile - Brown Mastic
MS-1-B	Mastic, Glue on Tiles, Main, Library	Not Analyzed - Positive Stop
MS-1-C	Mastic, Glue on Tiles, Main, Library	Not Analyzed - Positive Stop
PL-2-A	Plaster on Concrete, Main, Basement Storage	None Detected - Base Plaster 2% Chrysotile - Top Plaster
PL-2-B	Plaster on Concrete, Main, Basement Storage	Not Analyzed - Positive Stop
PL-2-C	Plaster on Concrete, Main, Basement Storage	Not Analyzed - Positive Stop
CT-4-A	2' x 4' Ceiling Tile, Main, Ground Corridor	None Detected - Acoustic Tile
CT-4-B	2' x 4' Ceiling Tile, Main, Ground Corridor	None Detected - Acoustic Tile
CT-4-C	2' x 4' Ceiling Tile, Main, Ground Corridor	None Detected - Acoustic Tile

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
PL-3-A	Plaster, Main, Ground Corridor	None Detected - Bottom Plaster 1% Chrysotile - Top Plaster
PL-3-B	Plaster, Main, 009	Not Analyzed - Positive Stop
PL-3-C	Plaster, Main, 007	Not Analyzed - Positive Stop
PL-3-D	Plaster, Main, 006	Not Analyzed - Positive Stop
PL-3-E	Plaster, Main, 005	Not Analyzed - Positive Stop
PL-3-F	Plaster, Main, 014	Not Analyzed - Positive Stop
PL-3-G	Plaster, Main, 011	Not Analyzed - Positive Stop
CT-5-A	1' x 1' Ceiling Tile, Main, 009	None Detected - Acoustic Tile
CT-5-B	1' x 1' Ceiling Tile, Main, 009	None Detected - Acoustic Tile
CT-5-C	1' x 1' Ceiling Tile, Main, 009	None Detected - Acoustic Tile
VT-6-A	9" x 9" Vinyl Floor Tile (Grey), Main, 009	None Detected - Floor Tile None Detected - Yellow Mastic 5% Chrysotile - Black Mastic
VT-6-B	9" x 9" Vinyl Floor Tile (Grey), Main, 009	Not Analyzed - Positive Stop
VT-6-C	9" x 9" Vinyl Floor Tile (Grey), Main, 009	Not Analyzed - Positive Stop
VT-7-A	1' x 1' Vinyl Floor Tile (Grey), Main, 009	None Detected - Floor Tile None Detected - Yellow Mastic
VT-7-B	1' x 1' Vinyl Floor Tile (Grey), Main, 009	None Detected - Floor Tile None Detected - Yellow Mastic
VT-7-C	1' x 1' Vinyl Floor Tile (Grey), Main, 009	None Detected - Floor Tile None Detected - Yellow Mastic
VT-8-A	1' x 1' Vinyl Floor Tile (Grey / Blue), Main, 008	None Detected - Floor Tile None Detected - Black Mastic 1 5% Chrysotile - Black Mastic 2

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
VT-8-B	1' x 1' Vinyl Floor Tile (Grey / Blue), Main, 008	Not Analyzed - Positive Stop
VT-8-C	1' x 1' Vinyl Floor Tile (Grey / Blue), Main, 008	Not Analyzed - Positive Stop
VT-9-A	Vinyl Floor Tile (Grey Patterned), Main, 007	None Detected - Floor Tile None Detected - Black Mastic 1 5% Chrysotile - Black Mastic 2
VT-9-B	Vinyl Floor Tile (Grey Patterned), Main, 007	Not Analyzed - Positive Stop
VT-9-C	Vinyl Floor Tile (Grey Patterned), Main, 007	Not Analyzed - Positive Stop
VT-10-A	1' x 1' Vinyl Floor Tile (White Patterned), Main, 007	None Detected - Floor Tile None Detected - Black Mastic 1 5% Chrysotile - Black Mastic 2
VT-10-B	1' x 1' Vinyl Floor Tile (White Patterned), Main, 007	Not Analyzed - Positive Stop
VT-10-C	1' x 1' Vinyl Floor Tile (White Patterned), Main, 007	Not Analyzed - Positive Stop
VT-11-A	9" x 9" Vinyl Floor Tile (White), Main, 007	None Detected - Floor Tile No Mastic
VT-11-B	9" x 9" Vinyl Floor Tile (White), Main, 007	None Detected - Floor Tile 5% Chrysotile - Black Mastic
VT-11-C	9" x 9" Vinyl Floor Tile (White), Main, 007	Not Analyzed - Positive Stop
MB-1-A	Thermal Insulation, Main, Boiler	10% Amosite - Thermal Insulation 5% Chrysotile - Thermal Insulation
MB-1-B	Thermal Insulation, Main, Boiler	Not Analyzed - Positive Stop
MB-1-C	Thermal Insulation, Main, Boiler	Not Analyzed - Positive Stop
CT-6-A	1' x 1' Ceiling Tile, Main, 007	None Detected - Acoustic Tile
CT-6-B	1' x 1' Ceiling Tile, Main, 007	None Detected - Acoustic Tile
CT-6-C	1' x 1' Ceiling Tile, Main, 007	None Detected - Acoustic Tile

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
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Client : EHS Partnerships Ltd. - Ottawa, ON
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Project # : 04-0068-12-001 Sample Date : 04/04/2012
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EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117
Report Date : 04/16/2012

003

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
CT-7-A	1' x 1' Ceiling Tile, Main, 006	3% Chrysotile - Acoustic Tile 2% Amosite - Acoustic Tile
CT-7-B	1' x 1' Ceiling Tile, Main, 006	Not Analyzed - Positive Stop
CT-7-C	1' x 1' Ceiling Tile, Main, 006	Not Analyzed - Positive Stop
VT-12-A	1' x 1' Vinyl Floor Tile (Beige), Main, 006	3% Chrysotile - Floor Tile None Detected - Black Mastic
VT-12-B	1' x 1' Vinyl Floor Tile (Beige), Main, 006	Not Analyzed - Positive Stop
VT-12-C	1' x 1' Vinyl Floor Tile (Beige), Main, 006	Not Analyzed - Positive Stop
VT-13-A	1' x 1' Vinyl Floor Tile (Blue), Main, 006	None Detected - Floor Tile None Detected - Yellow Mastic
VT-13-B	1' x 1' Vinyl Floor Tile (Blue), Main, 006	None Detected - Floor Tile No Mastic
VT-13-C	1' x 1' Vinyl Floor Tile (Blue), Main, 006	None Detected - Floor Tile Insufficient Mastic
FP-2-A	Foundation Parging, Main, Exterior	None Detected - Parging
FP-2-B	Foundation Parging, Main, Exterior	None Detected - Parging
FP-2-C	Foundation Parging, Main, Exterior	None Detected - Parging
MR-1-A	Brick Mortar, Annex, Exterior	None Detected - Mortar
MR-1-B	Brick Mortar, Annex, Exterior	None Detected - Mortar
MR-1-C	Brick Mortar, Annex, Exterior	None Detected - Mortar

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road
Project # : 04-0068-12-001 Sample Date : 04/04/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-04117 003
Report Date : 04/16/2012

On 4/6/2012, one hundred thirty six (136) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. Results may not be reproduced except in full. This test report relates only to the samples tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056.

NVLAP® LAB #102056

Analyst(s): Bruce Crabb, Heather Deines, Shaun Wilkerson

Lab Manager : Bruce Crabb Approved Signatory : 

Lab Director : Steve Moody Approved Signatory : 

Thank you for choosing Steve Moody Micro Services

June 11, 2014 EHS[P] Project No.: 04-0068-14-003

Mr. Bernard Benoit
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, Ontario, K1B 5N1
E-mail: Bernard.Benoit@bbpm.ca

SENT VIA E-MAIL

RE: ADDITIONAL HAZARDOUS SUBSTANCES ASSESSMENT
2720 RICHMOND ROAD, MAIN BUILDING
OTTAWA, ONTARIO

Dear Mr. Benoit,

EHS Partnerships Limited (EHS[P]) was retained by Bernard Benoit Project Management Inc. (BBPM) to provide project specific sampling of potential asbestos and PCB containing materials present in the main building located at 2720 Richmond Road, Ottawa, ON (Site). EHS[P] understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) and Federal Regulation SOR/2008-273, PCBs Regulations, made under the Canadian Environmental Protection Act.

This report presents additional testing required to carry out renovations of the Site. The findings in this report must used in conjunction with the initial Site Designated Substances Survey:

- Centre Multiservices Francophone de l'Ouest d'Ottawa, Designated Substances Survey, 2720 Richmond Road, Ottawa, Ontario, April 2012, Prepared by EHS Partnerships Ltd, Ref. No.: 04-0068-12-001.

EHS[P] completed the site reconnaissance on June 4, 2014. Based on the visual inspection EHS[P] collected and subsequently submitted fifteen (15) representative samples from five (5) distinct types of potential asbestos containing materials including ceiling panels and roofing materials. EHS[P] collected and subsequently submitted three (3) representative samples of potential PCB containing roofing materials (roof membrances). All sampled materials were sent to for analysis at 3rd party analytical laboratories.

The samples of the suspect asbestos containing material (ACM) were submitted under chain of custody procedure to Steve Moody Micro Services, of Farmers Branch, Texas for the determination of asbestos content using polarized light microscopy (PLM) analysis in accordance with EPA 600/R-93/116. The sample of potential PCB containing caulking was submitted under chain of custody to EMSL Laboratories, Cinnaminson, New Jersey for analysis of PCB content.

The analytical results are presented in Appendix A and are summarized in the following table:

Sample ID	Description	Test Parameter	Concentration	Comments
CP-XX	Ceiling Panels Gym	Asbestos	None Detected	Not Considered ACM
RM-1-XX	Roofing Materials Second Floor and Gym Membrane	Asbestos	None Detected	Not Considered ACM
RM-2-XX	Roofing Materials East Lower Elevations Sheet over Membrane	Asbestos	None Detected	Not Considered ACM
RM-3-XX	Roofing Materials East Higher Elevation Membrane	Asbestos	None Detected	Not Considered ACM
RM-4-XX	Roofing Materials Inclined Roof Shingle and Underlay	Asbestos	None Detected	Not Considered ACM
RM-1-PCB	Caulking (Grey), Addition, Roof	PCBs	None Detected	Not Considered PCB-containing
RM-2-PCB	Roofing Materials East Lower Elevations Sheet over Membrane	PCBs	None Detected	Not Considered PCB-containing
RM-3-PCB	Roofing Materials East Higher Elevation Membrane	PCBs	None Detected	Not Considered PCB-containing

XX – Indicates multiple representative samples collected in accordance with O. Reg. 278/05.

The analytical results indicate that asbestos was not detected above the Provincial criteria of 0.5% in any of the sampled materials and therefore the materials are not considered ACM in accordance with O. Reg. 278/05.

The analytical results indicate that PCB's were not detected in any of the suspected roofing materials.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Geoff Leclair, A.Sc.T.
Project Coordinator

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Analytical Results

Additional Hazardous Substances Assessment
BBPM Inc.
2720 Richmond Road
Ottawa, ON
EHS^{P} Project No.: 04-0068-14-003

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road, Nepean, Ontario
Project # : 04-0068-14-003 Sample Date : 06/04/2014
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 14B-06858
Report Date : 06/10/2014

On 6/5/14, fifteen (15) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
CP-A	Ceiling Panels, Gym	None Detected - Tectum Panel
CP-B	Ceiling Panels, Gym	None Detected - Tectum Panel
CP-C	Ceiling Panels, Gym	None Detected - Tectum Panel
RM-1-A	Roofing Materials, Second Floor and Gym Membrane	None Detected - Roofing Tars None Detected - Roofing Felts
RM-1-B	Roofing Materials, Second Floor and Gym Membrane	None Detected - Roofing Tars None Detected - Roofing Felts
RM-1-C	Roofing Materials, Second Floor and Gym Membrane	None Detected - Roofing Tars None Detected - Roofing Felts
RM-2-A	Roofing Materials, East Lower Elevations, Sheet over Membrane	None Detected - Roof Membrane None Detected - Roof Material None Detected - Roofing Tar None Detected - Underlayment
RM-2-B	Roofing Materials, East Lower Elevations, Sheet over Membrane	None Detected - Roof Membrane None Detected - Roof Material None Detected - Roofing Tar None Detected - Underlayment
RM-2-C	Roofing Materials, East Lower Elevations, Sheet over Membrane	None Detected - Roof Membrane None Detected - Roof Material None Detected - Roofing Tar None Detected - Underlayment
RM-3-A	Roofing Materials, East Higher Elevation, Membrane	None Detected - Roofing Tars None Detected - Roofing Felts
RM-3-B	Roofing Materials, East Higher Elevation, Membrane	None Detected - Roofing Tars None Detected - Roofing Felts
RM-3-C	Roofing Materials, East Higher Elevation, Membrane	None Detected - Roofing Tars None Detected - Roofing Felts
RM-4-A	Roofing Materials, Inclined Roof, Shingle and Underlay	None Detected - Roofing Shingle None Detected - Roofing Felt

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : 2720 Richmond Road, Nepean, Ontario
Project # : 04-0068-14-003 Sample Date : 06/04/2014
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 14B-06858
Report Date : 06/10/2014

On 6/5/14, fifteen (15) bulk material samples were submitted by Geoff Leclair of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
RM-4-B	Roofing Materials, Inclined Roof, Shingle and Underlay	None Detected - Roofing Shingle None Detected - Roofing Felt
RM-4-C	Roofing Materials, Inclined Roof, Shingle and Underlay	None Detected - Roofing Shingle None Detected - Roofing Felt

NVLAP® LAB #102056-0

Analyst(s): Steve Moody
Lab Manager : Heather Lopez
Lab Director : Bruce Crabb

Approved Signatory : Heather Lopez
Approved Signatory : Bruce Crabb

Thank you for choosing Steve Moody Micro Services

EMSL Analytical, Inc.
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http://www.EMSL.com Env_Chemistry@emsl.com

EMSL Order: 011402747
CustomerID: SEAC63
CustomerPO:
ProjectID:

Attn: **Geoff LeClair**
EHS Partnerships Ltd.
2 Gurdwara Road
Suite 406
Ottawa, ON K2E 1A2

Phone: (613) 828-8989
Fax: (613) 828-9404
Received: 06/05/14 9:40 AM

Project: **04-0068-014-003**

Analytical Results

Client Sample Description RM-01-PCB
Roofing Materials, 2nd Level and Gym

Collected: 6/4/2014 10:00:00 AM

Lab ID: *0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1221	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1232	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1242	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1248	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1254	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1260	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1262	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1268	ND	0.93	mg/Kg	6/5/2014	RS	6/6/2014	EH

Client Sample Description RM-02-PCB
Roofing Materials, East Lower

Collected: 6/4/2014 10:00:00 AM

Lab ID: *0002*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1221	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1232	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1242	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1248	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1254	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1260	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1262	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1268	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH

Client Sample Description RM-03-PCB
Roofing Materials, East Higher

Collected: 6/4/2014 10:00:00 AM

Lab ID: *0003*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3550C/8082A	Aroclor-1016	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1221	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1232	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1242	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1248	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1254	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1260	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1262	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH
3550C/8082A	Aroclor-1268	ND	0.98	mg/Kg	6/5/2014	RS	6/6/2014	EH

PLM Summary Report

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : CFMO
Project # : 04-0068-15-001
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 15B-06884
Report Date : 06/09/2015
Sample Date :05/07/2015

On 6/3/2015, twelve (12) bulk material samples were submitted by Trent Windsor of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
CBM-01A	Concrete Block Mortar	None Detected - Mortar
CBM-01B	Concrete Block Mortar	None Detected - Mortar
CBM-01C	Concrete Block Mortar	None Detected - Mortar
INT-BM-01A	Brick Mortar	None Detected - Brick None Detected - Mortar
INT-BM-01B	Brick Mortar	None Detected - Mortar
INT-BM-01C	Brick Mortar	None Detected - Mortar
EXT-BM-01A	Brick Mortar	None Detected - Mortar
EXT-BM-01B	Brick Mortar	None Detected - Mortar
EXT-BM-01C	Brick Mortar	None Detected - Mortar
P-01A	Paper Sheeting	None Detected - Tar Paper
P-01B	Paper Sheeting	None Detected - Tar Paper
P-01C	Paper Sheeting	None Detected - Tar Paper

NVLAP LAB #102056-0

Analyst(s): Cindy Vongpradith
Lab Manager : Heather Lopez
Lab Director : Bruce Crabb

Approved Signatory : Heather Lopez
Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

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Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : CFMO
Project # : 04-0068-15-001

Lab Job No. : 15B-06884
Report Date : 06/09/2015

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
CBM-01A	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
CBM-01B	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
CBM-01C	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
INT-BM-01A	Brick (Red Brown)	50%	Sintered Clays	100%	06/09	CV
	Mortar (Grey)	50%	Aggregate	65%		
			Cement Binders	35%		
INT-BM-01B	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
INT-BM-01C	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
EXT-BM-01A	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
EXT-BM-01B	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
EXT-BM-01C	Mortar (Grey)	100%	Aggregate	65%	06/09	CV
			Cement Binders	35%		
P-01A	Tar Paper (Black)	100%	Cellulose Fibers	85%	06/09	CV
			Tar Binders	15%		
P-01B	Tar Paper (Black)	100%	Cellulose Fibers	85%	06/09	CV
			Tar Binders	15%		
P-01C	Tar Paper (Black)	100%	Cellulose Fibers	85%	06/09	CV
			Tar Binders	15%		

June 10, 2015

EHS[P] Project No.: 04-0068-15-001

Mr. Andre Leroux
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, Ontario, K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

SENT VIA E-MAIL

RE: ASBESTOS SAMPLING - FLOOR TOPPING
2720 RICHMOND ROAD, MAIN BUILDING
OTTAWA, ONTARIO

Dear Mr. Leroux,

EHS Partnerships Limited (EHS[P]) was retained by Bernard Benoit Project Management Inc. (BBPM) to provide asbestos sampling and analysis of the floor topping observed throughout the main building located at 2720 Richmond Road in Ottawa, Ontario (Site). EHS[P] understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the floor topping on each elevation at the Site.

The floor topping was observed and sampled during a pre-construction designated substance survey conducted in May of 2015. The results of the sampling indicated that asbestos was detected in five of seven samples of the floor topping. Asbestos was detected in the Library, and the corridor on the ground floor and second floor of the building. No asbestos was detected in in room 17 or 18 in the basement. The results of this sampling can be found in the report titled "Designated Substance Survey Updated for Construction - Main Building Renovation and Rehabilitation, 2720 Richmond Road, Ottawa, Ontario", EHS Partnerships Ltd., May 2015.

The purpose of this sampling event was to determine if the floor topping on the basement level (lunchroom elevation) was indeed non asbestos containing and to determine the asbestos content of the floor topping below the recently removed vinyl flooring on the ground and second floors.

EHS[P] completed the inspection and sampling on May 25, 2015. Based on the visual inspection EHS[P] collected and subsequently submitted seven samples of the floor topping to Steve Moody Micro Services, LLC of Farmers Branch, Texas for analysis via polarized light microscopy (PLM).

The analytical results for the floor topping asbestos sampling are presented in Appendix A and are summarized in the following table:

Sample or Set ID	Location	Asbestos Concentration	Comments
LR/17/18-01A	Lunchroom 017	None Detected	Not Considered ACM
LR/17/18-01B	Lunchroom 018	None Detected	Not Considered ACM
LR/17/18-01A	Gym Storage Room	None Detected	Not Considered ACM

Sample or Set ID	Location	Asbestos Concentration	Comments
005	Room 005 (Ground Floor)	15% Chrysotile	Asbestos Containing Layer Present
006A	Room 006A (Ground Floor)	15% Chrysotile	Asbestos Containing Layer Present
014	Room 014 (Second Floor)	15% Chrysotile	Asbestos Containing Layer Present
012	Room 012 (Second Floor)	15% Chrysotile	Asbestos Containing Layer Present

The analytical results indicate that asbestos was detected above the Provincial criteria of 0.5% in all samples of the flooring collected on the ground and second floor of the Building. The additional sampling confirmed that the floor topping on lunchroom elevation of the basement level does not contain asbestos. It should be noted that the floor topping in the library in the basement (lower elevation than the lunchroom level) was previously found to contain asbestos.

Based on the findings of this sampling investigation and the pervious designated substance survey report the floor topping located in Lunch Room 17, Lunch Room 18, Fan Room, Gym Storage and Storage (all rooms on the same elevation) located in the basement does not contain asbestos. However, all of the other floor toppings in the building including that located on the main floor, second floor as well as in the Library (No.16), Kitchen (010) and Storage Room (002) should be treated as asbestos containing. In addition, the floor below the existing gym floor should be inspected prior to disturbance.

Any disturbance of the asbestos floor topping is subject to O.Reg 278/05 and should only be conducted by component workers. The disposal of the asbestos containing floor topping is subject to Ontario Regulation 347: Waste Regulation.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Trent Windsor, C.E.T.
Associate

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix □
Analytical Results

Asbestos Sam□lin□□□loor To□□in□
□ernard □enoit Pro□ect Mana□ement □nc□
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Ottawa, Ontario
EHS[P] Project No.: 04-00□□-15-001

PLM Summary Report

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	EHS Partnerships Ltd. - Ottawa, ON	Lab Job No. : 15B-06479	002
Project :	CFMO	Report Date : 05/27/2015	
Project # :	04-0068-15-002	Sample Date :05/25/2015	
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 5/27/2015, seven (7) bulk material samples were submitted by Trent Windsor of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
LR-18/17-01A	Floor Topping, Basement Lunchrooms	None Detected - Paint None Detected - Floor Topping
LR-18/17-01B	Floor Topping, Basement Lunchrooms	None Detected - Paint None Detected - Floor Topping
LR-18/17-01C	Floor Topping, Basement Lunchrooms	None Detected - Paint None Detected - Floor Topping
005	Floor Topping	15% Chrysotile - Coating None Detected - Floor Topping
006A	Floor Topping	15% Chrysotile - Coating None Detected - Floor Topping
014	Floor Topping	15% Chrysotile - Coating None Detected - Floor Topping
012	Floor Topping	15% Chrysotile - Coating None Detected - Floor Topping

NVLAP LAB #102056-0

Analyst(s): Bruce Crabb

Lab Manager : Heather Lopez Approved Signatory : Heather Lopez

Lab Director : Bruce Crabb Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

June 10, 2015

EHS^P Project No.: 04-0068-15-001

Mr. Andre Leroux
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, Ontario, K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

SENT VIA E-MAIL

RE: ADDITIONAL ASBESTOS SAMPLING
2720 RICHMOND ROAD, MAIN BUILDING
OTTAWA, ONTARIO

Dear Mr. Leroux,

EHS Partnerships Limited (EHS^P) was retained by Bernard Benoit Project Management Inc. (BBPM) to provide additional asbestos sampling of suspect building materials at the main building located at 2720 Richmond Road in Ottawa, Ontario (Site). EHS^P understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the suspect building materials prior to their disturbance at the Site.

The general contractor (Graebeck Construction Ltd.) indicated that select exterior and interior walls would be demolished as part of the renovations at the site. Given the potential for asbestos to be present in the mortar they requested that the materials be sampled and analysed. In addition they discovered a potential asbestos containing paper between the 1'x1' ceiling tiles and the ceiling above.

EHS^P completed the sampling on June 2, 2015. Based on the visual inspection EHS^P collected and subsequently submitted twelve (12) samples from four (4) distinct potential Asbestos Containing Materials (ACMs) including interior and exterior brick mortar, concrete block mortar and paper sheeting to Steve Moody Micro Services, LLC of Farmers Branch, Texas for analysis via polarized light microscopy (PLM).

The analytical results are presented in Appendix A and are summarized in the following table:

Sample or Set ID	Description/ Location	Asbestos Concentration	Comments
CBM-01A-C	Concrete Block Mortar Interior Walls- Basement	None Detected	Not Considered ACM
INT-BM-01A-C	Brick Mortar Interior Walls- Basement	None Detected	Not Considered ACM
INT-BM-01A-C	Brick Mortar Exterior Walls- Below Windows	None Detected	Not Considered ACM
P-01A-C	Paper Sheeting Between 1'X1" Ceiling Tiles and Ceiling Above	None Detected	Not Considered ACM

The analytical results indicate that asbestos was not detected above the Provincial criteria of 0.5% as prescribed in Ontario Regulation 278/05 in any of the sampled materials and therefore these materials are not considered to be ACMs.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Trent Windsor, C.E.T.
Associate

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix □
Analytical Results

Additional Asbestos Sam□lin□
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Ottawa, Ontario
EHS[P] Project No.: 04-00□□-15-001

PLM Summary Report

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : CFMO
Project # : 04-0068-15-001
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 15B-06884
Report Date : 06/09/2015
Sample Date :05/07/2015

On 6/3/2015, twelve (12) bulk material samples were submitted by Trent Windsor of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
CBM-01A	Concrete Block Mortar	None Detected - Mortar
CBM-01B	Concrete Block Mortar	None Detected - Mortar
CBM-01C	Concrete Block Mortar	None Detected - Mortar
INT-BM-01A	Brick Mortar	None Detected - Brick None Detected - Mortar
INT-BM-01B	Brick Mortar	None Detected - Mortar
INT-BM-01C	Brick Mortar	None Detected - Mortar
EXT-BM-01A	Brick Mortar	None Detected - Mortar
EXT-BM-01B	Brick Mortar	None Detected - Mortar
EXT-BM-01C	Brick Mortar	None Detected - Mortar
P-01A	Paper Sheeting	None Detected - Tar Paper
P-01B	Paper Sheeting	None Detected - Tar Paper
P-01C	Paper Sheeting	None Detected - Tar Paper

NVLAP LAB #102056-0

Analyst(s): Cindy Vongpradith
Lab Manager : Heather Lopez
Lab Director : Bruce Crabb

Approved Signatory : Heather Lopez
Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

Moody Labs

Chain of Custody

Lab Job # 153-07725 PLM 9
Lab Job # _____
Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Page ___ of ___

ASBESTOS PLM
Bulk ☐ Immediate ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day
☐ Analyze All ☒ Positive Stop

PCM Air (7400)
☐ Immediate ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day

TOTAL DUST (0500/0600)
☐ 1 day ☐ 2 day

ASBESTOS TEM
Air AHERA Method ☐ 6 hr ☐ 12 hr ☐ 24 hr
Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
Bulk ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day
Water/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
Analyze Blanks ☐ Yes ☐ No

MOLD
Direct Exam ☐ Immediate ☐ 1 day ☐ 2 day
Standard Air ☐ Immediate ☐ 1 day ☐ 2 day
Expanded Air ☐ Immediate ☐ 1 day ☐ 2 day
Culture** ☐ 10-14 days
Analyze Blanks ☐ Yes ☐ No

Turnaround of Culture Samples subject to Culture Growth

BACTERIA**
Colony Counts (CC) ☐ 3 day ☐ 5 day
CC + Gram Stain ☐ 3 day ☐ 5 day
Coliform & E. coli (P/A) ☐ 2-3 day
Legionella ☐ 14 days

OTHER: _____

Billing Company / City: EHS Partnerships/ Ottawa
Submitter's Company: EHS Partnerships
Submitter's Name: Trent Windsor
Project: CFMO
Contact Information: Name: _____
E-mail Results to: twindsor@ehsp.ca
Invoice Address: _____

# of Samples: 9
Sample Date: June 17, 2015
Project #: 04-0068-15-001
Phone #: _____
Mobile #: 613-668-3051
Fax #: _____
P.O. #: _____

Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees

Notes: _____

	Sample #	Sample Description	Vol. / Area (if applicable)	Location / Notes
1-3	PLA-01A-C	Wall Plaster		East Stairwell
4-6	TEX-PLA-01A-C	Textured Wall Plaster		East Stairwell
7-9	FLR-01A-C	Flooring Material		Gym Floor

Released By:	Date / Time:	Received By:	Date / Time:
Trent Windsor	June 17, 2015 11:30	Via FedEx	6/18/15 8:50A

PLM Summary Report

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	EHS Partnerships Ltd. - Ottawa, ON	Lab Job No. :	15B-07725
Project :	CFMO	Report Date :	06/22/2015
Project # :	04-0068-15-001	Sample Date :	06/17/2015
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 6/18/2015, nine (9) bulk material samples were submitted by Trent Windsor of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
PLA-01A	Wall Plaster, East Stairwell	None Detected - Base Plaster None Detected - Top Plaster
PLA-01B	Wall Plaster, East Stairwell	None Detected - Base Plaster None Detected - Top Plaster
PLA-01C	Wall Plaster, East Stairwell	None Detected - Base Plaster None Detected - Top Plaster
TEX-PLA-01A	Textured Wall Plaster, East Stairwell	None Detected - Plaster None Detected - Texture
TEX-PLA-01B	Textured Wall Plaster, East Stairwell	None Detected - Plaster None Detected - Texture
TEX-PLA-01C	Textured Wall Plaster, East Stairwell	None Detected - Plaster None Detected - Paint
FLR-01A	Flooring Material, Gym Floor	None Detected - Flooring Material None Detected - Grout
FLR-01B	Flooring Material, Gym Floor	None Detected - Flooring Material
FLR-01C	Flooring Material, Gym Floor	None Detected - Flooring Material None Detected - Grout

NVLAP LAB #102056-0

Analyst(s): Ashley Bishop

Lab Manager : Heather Lopez — Approved Signatory : Heather Lopez

Lab Director : Bruce Crabb — Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

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Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : CFMO
Project # : 04-0068-15-001

Lab Job No. : 15B-07725
Report Date : 06/22/2015

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
PLA-01A	Base Plaster (Grey)	45%	Cellulose Fibers	<1%	06/22	AB
			Aggregate	65%		
			Gypsum / Binders	35%		
	Top Plaster (White)	55%	Calcite / Gypsum Binders	100%		
PLA-01B	Base Plaster (Grey)	75%	Cellulose Fibers	<1%	06/22	AB
			Aggregate	65%		
			Gypsum / Binders	35%		
	Top Plaster (White)	25%	Calcite / Gypsum Binders	100%		
PLA-01C	Base Plaster (Grey)	70%	Cellulose Fibers	<1%	06/22	AB
			Aggregate	65%		
			Gypsum / Binders	35%		
	Top Plaster (White)	30%	Calcite / Gypsum Binders	100%		
TEX-PLA-01A	Plaster (Grey)	85%	Cellulose Fibers	<1%	06/22	AB
			Aggregate	65%		
			Gypsum / Binders	35%		
	Texture (Brown)	15%	Calcite / Gypsum Binders	100%		
TEX-PLA-01B	Plaster (Grey)	85%	Cellulose Fibers	<1%	06/22	AB
			Aggregate	65%		
			Gypsum / Binders	35%		
	Texture (Brown)	15%	Calcite / Gypsum Binders	100%		
TEX-PLA-01C	Plaster (White)	98%	Aggregate	65%	06/22	AB
			Calcite / Binders	35%		
	Paint (Off-White)	2%	Pigment / Binders	100%		
FLR-01A	Flooring Material (Orange)	97%	Cellulose Fibers	10%	06/22	AB
			Calcite / Binders	90%		
	Grout (Grey)	3%	Aggregate	65%		
			Cement Binders	35%		
FLR-01B	Flooring Material (Orange)	100%	Cellulose Fibers	10%	06/22	AB
			Calcite / Binders	90%		

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client : EHS Partnerships Ltd. - Ottawa, ON
Project : CFMO
Project # : 04-0068-15-001

Lab Job No. : 15B-07725
Report Date : 06/22/2015

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
FLR-01C	Flooring Material (Orange)	95%	Cellulose Fibers	10%	06/22	AB
			Calcite / Binders	90%		
	Grout (Grey)	5%	Aggregate	65%		
			Cement Binders	35%		

June 24, 2015

EHS[P] Project No.: 04-0068-15-001

Mr. Andre Leroux
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, Ontario, K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

SENT VIA E-MAIL

RE: ADDITIONAL ASBESTOS SAMPLING -
MAIN BUILDING, GYM AND EAST STAIRWELL
2720 RICHMOND ROAD, OTTAWA, ONTARIO

Dear Mr. Leroux,

EHS Partnerships Limited (EHS[P]) was retained by Bernard Benoit Project Management Inc. (BBPM) to provide additional asbestos sampling of suspect building materials at the main building located at 2720 Richmond Road in Ottawa, Ontario (Site). EHS[P] understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the suspect building materials prior to their disturbance at the Site.

The general contractor (Graebeck Construction Ltd.) discovered that the floor in the gymnasium was not wood parquet as initially assumed but rather a man-made composite sheeting. Based on this discovery they requested that the material be sampled and analysed for the presence of asbestos. In addition during discussions with site personnel it came to light that the East stairwell was not part of the original building. Based on this information EHS[P] determined that it would be prudent to sample and analyse the plaster within the stairwell for asbestos content.

EHS[P] completed the sampling on June 17, 2015. Based on the visual inspection EHS[P] collected and subsequently submitted nine (9) samples from three (3) distinct potential Asbestos Containing Materials (ACMs) including the gym flooring, and the smooth and textured plaster wall plaster in the East Stairwell. The samples were sent under chain of custody procedures to Steve Moody Micro Services, LLC of Farmers Branch, Texas for analysis via polarized light microscopy (PLM).

The analytical results are presented in Appendix A and are summarized in the following table:

Sample or Set ID	Description/ Location	Asbestos Concentration	Comments
PLA-01A-C	Smooth Plaster- East Stairwell	None Detected	Not Considered ACM
TXT-PLA-01A-C	Textured Plaster- Bottom Half of Wall in the East Stairwell	None Detected	Not Considered ACM
FLR-01A-C	Gym Flooring	None Detected	Not Considered ACM

The analytical results indicate that asbestos was not detected above the Provincial criteria of 0.5% as prescribed in Ontario Regulation 278/05 in any of the sampled materials and therefore these materials are not considered to be ACMs.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Trent Windsor, C.E.T.
Associate

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Analytical Results

Additional Asbestos Sampling Report
Gym and East Stairwell
Bernard Benoit Project Management Inc.
Main Building, 2720 Richmond Road
Ottawa, ON
EHS^{P} Project No.: 04-0068-15-001

PLM Summary Report

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	EHS Partnerships Ltd. - Ottawa, ON	Lab Job No. :	15B-07725
Project :	CFMO	Report Date :	06/22/2015
Project # :	04-0068-15-001	Sample Date :	06/17/2015
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 6/18/2015, nine (9) bulk material samples were submitted by Trent Windsor of EHS Partnerships Ltd. - Ottawa, ON for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
PLA-01A	Wall Plaster, East Stairwell	None Detected - Base Plaster None Detected - Top Plaster
PLA-01B	Wall Plaster, East Stairwell	None Detected - Base Plaster None Detected - Top Plaster
PLA-01C	Wall Plaster, East Stairwell	None Detected - Base Plaster None Detected - Top Plaster
TEX-PLA-01A	Textured Wall Plaster, East Stairwell	None Detected - Plaster None Detected - Texture
TEX-PLA-01B	Textured Wall Plaster, East Stairwell	None Detected - Plaster None Detected - Texture
TEX-PLA-01C	Textured Wall Plaster, East Stairwell	None Detected - Plaster None Detected - Paint
FLR-01A	Flooring Material, Gym Floor	None Detected - Flooring Material None Detected - Grout
FLR-01B	Flooring Material, Gym Floor	None Detected - Flooring Material
FLR-01C	Flooring Material, Gym Floor	None Detected - Flooring Material None Detected - Grout

NVLAP LAB #102056-0

Analyst(s): Ashley Bishop

Lab Manager : Heather Lopez — Approved Signatory : Heather Lopez

Lab Director : Bruce Crabb — Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671500455
Customer ID: 55SEAC63
Customer PO:
Project ID:

Attn: Paul Park
EHS Partnerships Ltd.
2 Gurdwara Road
Suite 406
Ottawa, ON K2E 1A2

Proj: 04-0068-15-001

Phone: (613) 828-8989
Fax: (613) 828-9404
Collected: 7/ 7/2015
Received: 7/07/2015
Analyzed: 7/08/2015

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: WPL 1-a **Lab Sample ID:** 671500455-0001
Sample Description: Right wall/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015	Gray	0%	97%	3% Chrysotile	

Client Sample ID: WPL 1-b **Lab Sample ID:** 671500455-0002
Sample Description: Stage wall/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

Client Sample ID: WPL 1-c **Lab Sample ID:** 671500455-0003
Sample Description: Gym closet/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

Client Sample ID: WPL 1-d **Lab Sample ID:** 671500455-0004
Sample Description: Left wall/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

Client Sample ID: WPL 1-e **Lab Sample ID:** 671500455-0005
Sample Description: Middle closet/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671500455
Customer ID: 55SEAC63
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Analyst(s):

Simon Parent PLM (1)

Reviewed and approved by:

Lemma Mohammad , Laboratory Manager
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 07/08/201512:02:23

OrderID: 671500455

EMSL ANALYTICAL, INC.
LABORATORY · PRODUCTS · TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 671500455

PHONE:
FAX:

Company Name: EHS Partnerships Ltd.		**EMSL Customer ID:** 555EAC63	
Street: Suite 406, 2 Gurdwara Road		**City:** Ottawa	**State/Province:** Ontario
Zip/Postal Code K2E 1A2	**Country:** Canada	**Telephone #:** 613-828-8989	**Fax #.** 613-828-9404
Report To (Name): Paul Park		**Please Provide Results** ☐ Fax ☑ Email	
Email Address: ppark@ehsp.ca		**Purchase Order:**	
Project Name/Number: 04-0068-15-001		**EMSL Project ID** *(Internal Use Only)*:	
U.S. State Samples Taken:		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

EMSL-Bill to ☐ Same ☐ Different - If Bill to is Different note Instructions In Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☑ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NYS 198.8 SOP-V
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite*
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

*Can not accept New York State Loose Fill Vermiculite Samples

Other:
- ☐

☑ Check For Positive Stop – Clearly Identify Homogenous Group | Filter Pore Size (Air Samples) ☑ 0.8µm ☐ 0.45µm

Samplers Name: | **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
WPL 1-a	wall plaster (right wall)	–	July 7 / 15 p.m
b	(Stage wall)		
c	(Gym closet)		
d	(Left wall)		
e	(middle closet)		

Client Sample # (s) - **Total # of Samples**

Relinquished (Client) Paul Park **Date:** July 7, 2015 **Time:** 1:55 p.m.

Received (Lab): Ottawa walk in ST **Date** 7/7/15 **Time:** 2:12 pm

Comments/Special Instructions:

July 13, 2015

EHS^P Project No.: 04-0068-15-001

SENT VIA E-MAIL

Mr. Andre Leroux
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, ON K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

RE: ADDITIONAL ASBESTOS SAMPLING
MAIN BUILDING, GYMNASIUM WALL PLASTER
2720 RICHMOND ROAD, OTTAWA, ONTARIO

Dear Mr. Leroux,

EHS Partnerships Limited (EHS^P) was retained by Bernard Benoit Project Management Incorporated (BBPM) to provide additional asbestos sampling of suspect building materials at the main building located at 2720 Richmond Road in Ottawa, Ontario (herein referred to as the 'Site'). EHS^P understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the suspect building materials prior to their disturbance at the Site.

The general contractor (Graebeck Construction Ltd.) indicated that the gymnasium was not part of the original building, and plaster walls of select areas within the Site were found to contain asbestos. Based on this information, EHS^P determined that it would be prudent to sample and analyse the plaster within the gymnasium for asbestos content.

EHS^P completed the sampling on July 7, 2015. Based on the visual inspection EHS^P collected and subsequently submitted five (5) samples of potential asbestos containing wall plaster in the gymnasium. The samples were sent under chain of custody procedures to EMSL Canada Incorporated of Ottawa, Ontario (EMSL) for analysis via polarized light microscopy (PLM).

The analytical results are presented in ***Appendix A*** and are summarized in the following table:

Sample or Set ID	Description/ Location	Asbestos Concentration	Comments
WPL 1-a to 1-e	Plaster - Gymnasium Walls	3% Chrysotile	Considered to be an ACM

The analytical results indicate that asbestos was detected above the Provincial criteria of 0.5% or more asbestos by dry weight in the samples of the wall plaster collected from within the gymnasium on the ground floor of the Building.

Based on the findings of this sampling investigation, the walls located in the gymnasium should be treated as asbestos containing.

Any disturbance of the asbestos containing wall plaster is subject to Ontario Regulation 278/05 and should only be conducted by component workers. The disposal of the asbestos containing wall plaster is subject to Ontario Regulation 347: Waste Regulation.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Donghyun (Paul) Park, C.E.T., CIE, CEICI
Environmental Technologist

Trent Windsor, C.E.T.
Associate

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

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3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Analytical Laboratory Results

Additional Asbestos Sampling – Gymnasium Wall Plaster
Bernard Benoit Project Management Inc.
Main Building, 2720 Richmond Road
Ottawa, Ontario
EHS^{P} Project No.: 04-0068-15-001

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671500455
Customer ID: 55SEAC63
Customer PO:
Project ID:

Attn: Paul Park
EHS Partnerships Ltd.
2 Gurdwara Road
Suite 406
Ottawa, ON K2E 1A2

Proj: 04-0068-15-001

Phone: (613) 828-8989
Fax: (613) 828-9404
Collected: 7/ 7/2015
Received: 7/07/2015
Analyzed: 7/08/2015

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: WPL 1-a **Lab Sample ID:** 671500455-0001
Sample Description: Right wall/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015	Gray	0%	97%	3% Chrysotile	

Client Sample ID: WPL 1-b **Lab Sample ID:** 671500455-0002
Sample Description: Stage wall/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

Client Sample ID: WPL 1-c **Lab Sample ID:** 671500455-0003
Sample Description: Gym closet/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

Client Sample ID: WPL 1-d **Lab Sample ID:** 671500455-0004
Sample Description: Left wall/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

Client Sample ID: WPL 1-e **Lab Sample ID:** 671500455-0005
Sample Description: Middle closet/Wall Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/08/2015				Stop Positive (Not Analyzed)	

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671500455
Customer ID: 55SEAC63
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Analyst(s):

Simon Parent PLM (1)

Reviewed and approved by:

Lemma Mohammad , Laboratory Manager
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 07/08/201512:02:23

August 31, 2015

EHS[P] Project No.: 04-0068-15-001

SENT VIA E-MAIL

Mr. Andre Leroux
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, ON K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

RE: ADDITIONAL ASBESTOS SAMPLING
MAIN BUILDING, BASEMENT - FORMER CISTERN TAR LINING
2720 RICHMOND ROAD, OTTAWA, ONTARIO

Dear Mr. Leroux,

EHS Partnerships Limited (EHS[P]) was retained by Bernard Benoit Project Management Incorporated (BBPM) to provide additional asbestos sampling of suspect building materials at the main building located at 2720 Richmond Road in Ottawa, Ontario (herein referred to as the 'Site'). EHS[P] understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the suspect building materials prior to their disturbance at the Site.

The general contractor (Graebeck Construction Ltd.) indicated that tar like membrane paper was discovered within what is believed to be a former cistern in the basement.

EHS[P] completed the sampling on August 31, 2015. EHS[P] collected and subsequently submitted three (3) samples of potential asbestos containing tar paper. The samples were sent under chain of custody procedures to EMSL Canada Incorporated of Ottawa, Ontario (EMSL) for analysis via polarized light microscopy (PLM).

The analytical results are presented in ***Appendix A*** and are summarized in the following table:

Sample or Set ID	Description/ Location	Asbestos Concentration	Comments
TP-01 A to C	Tar paper - Cistern Lining	5% Chrysotile	Considered to be an ACM

The analytical results indicate that asbestos was detected above the Provincial criteria of 0.5% or more asbestos by dry weight in the samples of the tar paper collected from within the former cistern in basement.

Based on the findings of this sampling investigation, the tar paper lining the walls located in the basement room should be treated as asbestos containing. Any disturbance of the asbestos containing tar paper is subject to Ontario Regulation 278/05 and should only be conducted by component workers. The disposal of the asbestos containing tar paper is subject to Ontario Regulation 347: Waste Regulation.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Tim Ambery, EIT
Technician

Trent Windsor, C.E.T.
Associate

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Analytical Laboratory Results

Additional Asbestos Sampling – Basement –Tar Lining
Bernard Benoit Project Management Inc.
Main Building, 2720 Richmond Road
Ottawa, Ontario
EHS^{P} Project No.: 04-0068-15-001

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671500578
Customer ID: 55SEAC63
Customer PO:
Project ID:

Attn: Tim Ambery
EHS Partnerships Ltd.
2 Gurdwara Road
Suite 406
Ottawa, ON K2E 1A2

Proj: 04-0068-15-001

Phone: (613) 828-8989
Fax: (613) 828-9404
Collected: 8/31/2015
Received: 8/31/2015
Analyzed: 8/31/2015

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: TP-01A ***Lab Sample ID:*** **671500578-0001**

Sample Description: Basement room/Tar paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/31/2015	Gray/Black	0%	95%	**5% Chrysotile**	

Client Sample ID: TP-01B ***Lab Sample ID:*** **671500578-0002**

Sample Description: Basement room/Tar paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/31/2015				Stop Positive (Not Analyzed)	

Client Sample ID: TP-01C ***Lab Sample ID:*** **671500578-0003**

Sample Description: Basement room/Tar paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/31/2015				Stop Positive (Not Analyzed)	

Analyst(s):

Simon Parent PLM (1)

Reviewed and approved by:

Lemma Mohammad , Laboratory Manager
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 08/31/201515:23:11

September 9, 2015 EHS[P] Project No.: 04-0068-15-001

Mr. Andre Leroux **SENT VIA E-MAIL**
Bernard Benoit Project Management Inc.
2212 Gladwin Crescent. Unit B4
Ottawa, ON K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

RE: ADDITIONAL ASBESTOS SAMPLING
MAIN BUILDING, EXTERIOR WALL – WATERPROOF MEMBRANE
2720 RICHMOND ROAD, OTTAWA, ONTARIO

Dear Mr. Leroux,

EHS Partnerships Limited (EHS[P]) was retained by Bernard Benoit Project Management Incorporated (BBPM) to provide additional asbestos sampling of suspect building materials at the main building located at 2720 Richmond Road in Ottawa, Ontario (herein referred to as the 'Site'). EHS[P] understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the suspect building materials prior to their disturbance at the Site.

The general contractor (Graebeck Construction Ltd.) indicated that a black waterproof membrane was discovered after excavation beside two exterior walls; the elevator exterior wall and window well exterior wall.

EHS[P] completed the sampling on September 3, 2015. EHS[P] collected and subsequently submitted six (6) samples from two (2) distinct potential Asbestos Containing Materials (ACMs) of waterproof membrane. The samples were sent under chain of custody procedures to EMSL Canada Incorporated of Ottawa, Ontario (EMSL) for analysis via polarized light microscopy (PLM).

The analytical results are presented in ***Appendix A*** and are summarized in the following table:

Sample or Set ID	Description/Location	Asbestos Concentration	Comments
WPM-01 A to C	Waterproof membrane – Elevator wall	None detected	Not Considered ACM
WPM-02 A to C	Waterproof membrane – Window well wall	None detected	Not Considered ACM

The analytical results indicate that asbestos was not detected above the Provincial criteria of 0.5% as prescribed in Ontario Regulation 278/05 in either of the samples of waterproof membrane collected from the exterior wall and therefore these materials are not considered to be ACMs.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Tim Ambery, EIT
Technician

Trent Windsor, C.E.T.
Associate

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Analytical Laboratory Results

Additional Asbestos Sampling – Exterior Wall – Waterproof Membrane
Bernard Benoit Project Management Inc.
Main Building, 2720 Richmond Road
Ottawa, Ontario
EHS[P] Project No.: 04-0068-15-001

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: 343-882-6076 / (343) 882-6077
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EMSL Canada Order 671500597
Customer ID: 55SEAC63
Customer PO:
Project ID:

Attn: Tim Ambery
EHS Partnerships Ltd.
2 Gurdwara Road
Suite 406
Ottawa, ON K2E 1A2

Proj: 04-0068-15-001

Phone: (613) 828-8989
Fax: (613) 828-9404
Collected: 9/ 3/2015
Received: 9/03/2015
Analyzed: 9/03/2015

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: WPM-01A ***Lab Sample ID:*** **671500597-0001**
Sample Description: Elevator wall/Waterproof membrane

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/03/2015	Black	4%	96%	None Detected	

Client Sample ID: WPM-01B ***Lab Sample ID:*** **671500597-0002**
Sample Description: Elevator wall/Waterproof membrane

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/03/2015	Black	5%	95%	None Detected	

Client Sample ID: WPM-01C ***Lab Sample ID:*** **671500597-0003**
Sample Description: Elevator wall/Waterproof membrane

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/03/2015	Black	5%	95%	None Detected	

Client Sample ID: WPM-02A ***Lab Sample ID:*** **671500597-0004**
Sample Description: Window well/Waterproof membrane

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/03/2015	Black	10%	90%	None Detected	

Client Sample ID: WPM-02B ***Lab Sample ID:*** **671500597-0005**
Sample Description: Window well/Waterproof membrane

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/03/2015	Black	10%	90%	None Detected	

Client Sample ID: WPM-02C ***Lab Sample ID:*** **671500597-0006**
Sample Description: Window well/Waterproof membrane

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/03/2015	Black	15%	85%	None Detected	

October 13, 2015 EHS[P] Project No.: 04-0068-15-001

Mr. Andre Leroux
Bernard Benoit Project Management Incorporated
2212 Gladwin Crescent, Unit B4
Ottawa, Ontario K1B 5N1
E-mail: Andre.Leroux@bbpm.ca

SENT VIA E-MAIL

RE: ADDITIONAL ASBESTOS SAMPLING
MAIN BUILDING, EXTERIOR
WINDOW CAULKING AND GLAZING
2720 RICHMOND ROAD, OTTAWA, ONTARIO

Dear Mr. Leroux;

EHS Partnerships Limited (EHS[P]) was retained by Bernard Benoit Project Management Incorporated (BBPM) to provide additional asbestos sampling of suspect asbestos containing caulking and window glazing at the main building located at 2720 Richmond Road in Ottawa, Ontario (herein referred to as the 'Site'). EHS[P] understands that the project specific sampling was requested to satisfy Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Building and Repair Operations" (Ontario Regulation 278/05) to determine the asbestos content of the window caulking and glazing prior to the removal and replacement of the windows at the Site.

The general contractor (Graebeck Construction Ltd.) indicated that the windows at the Site are to be replaced as part the current renovation project. Given the age of the building it is possible that the window caulking and glazing contain asbestos. It was further reported that information pertaining to the asbestos content of the window caulking and glazing was not available.

EHS[P] completed the sampling program on October 9, 2015. EHS[P] collected and subsequently submitted a total of six (6) samples of potential asbestos containing building materials including window caulking and glazing. The samples were sent under chain of custody procedures to EMSL Canada Incorporated of Ottawa, Ontario (EMSL) for analysis via polarized light microscopy (PLM).

The analytical results are presented in ***Appendix A*** and are summarized in the following table:

Sample or Set ID	Description/Location	Asbestos Concentration	Comments
EWC 1-A to C	Exterior Window Caulking – Around window frame	None detected	Not Considered ACM
WG 1-A to C	**Window Glazing – Around window glass**	**15% Chrysotile**	**Considered to be an ACM**

The analytical results indicate that asbestos was not detected in the samples of the window caulking; however, asbestos was detected above the Provincial criteria of 0.5% or more asbestos by dry weight in the samples of the window glazing collected from the window within the Site. Based on the findings of this sampling investigation, all window glazing at the Site should be treated as asbestos containing.

Any disturbance of the asbestos containing window glazing is subject to Ontario Regulation 278/05 and should only be conducted by component workers. The removal of the glazing would be considered to be a Type 1 asbestos abatement operation as long as power tools are not utilized.

The disposal of the asbestos containing window glazing is subject to Ontario Regulation 347: Waste Regulation.

We trust that the above meets your requirements at this time. If you have any questions, please feel free to contact us at (613) 828-8989.

Sincerely,

EHS PARTNERSHIPS LTD.
per:

Donghyun (Paul) Park, C.E.T., CIE, CEICI
Environmental Technologist

LIMITATIONS

The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

1. The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.

2. The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by the request of the client, the time and budgetary constraints imposed by the client, and availability of access to the properties.

3. Because of the limitations stated above, the findings, observations and conclusions expressed by EHS[P] in this report are not, and should not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

4. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

5. EHS[P] assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the assessment report constitutes acceptance of the limits of EHS[P]'s liability. EHS[P]'s liability extends only to its client and not to other parties who may obtain this assessment report. Issues raised by the report should be reviewed by appropriate legal counsel.

Appendix A
Analytical Laboratory Results

Additional Asbestos Sampling
Window Caulking and Glazing
Bernard Benoit Project Management Inc.
Main Building, 2720 Richmond Road
Ottawa, Ontario
EHS^{P} Project No.: 04-0068-15-001

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
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EMSL Canada Order 671500721
Customer ID: 55SEAC63
Customer PO:
Project ID:

Attn: Paul Park
EHS Partnerships Ltd.
2 Gurdwara Road
Suite 406
Ottawa, ON K2E 1A2

Proj: 04-0068-15-001

Phone: (613) 828-8989
Fax: (613) 828-9404
Collected: 10/ 9/2015
Received: 10/09/2015
Analyzed: 10/09/2015

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: EWC 1-a **Lab Sample ID:** **671500721-0001**
Sample Description: Exterior window caulking

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	CoF Fluent
PLM	10/09/2015	Gray	0%	100%	None Detected	

Client Sample ID: EWC 1-b **Lab Sample ID:** **671500721-0002**
Sample Description: Exterior window caulking

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	CoF Fluent
PLM	10/09/2015	Gray	0%	100%	None Detected	

Client Sample ID: EWC 1-c **Lab Sample ID:** **671500721-0003**
Sample Description: Exterior window caulking

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	CoF Fluent
PLM	10/09/2015	Gray	0%	100%	None Detected	

Client Sample ID: WG 1-a **Lab Sample ID:** **671500721-000z**
Sample Description: Window glazing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	CoF Fluent
PLM	10/09/2015	Gray	0%	85%	**15% Chrysotile**	

Client Sample ID: WG 1-b **Lab Sample ID:** **671500721-0005**
Sample Description: Window glazing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	CoF Fluent
PLM	10/09/2015			Stop Positive (Not Analyzed)		

Client Sample ID: WG 1-c **Lab Sample ID:** **671500721-0006**
Sample Description: Window glazing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	CoF Fluent
PLM	10/09/2015			Stop Positive (Not Analyzed)		

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