



**ECO**  
Environmental Consulting  
Occupational Health

**PRE-RENOVATION DESIGNATED SUBSTANCES  
AND HAZARDOUS MATERIALS ASSESSMENT**

**OPP GHQ – BOARDROOMS RENOVATION  
777 MEMORIAL AVENUE  
ORILLIA, ONTARIO**

**SUBMITTED TO:**

CBRE Limited  
John Coe | Project Manager  
777 Memorial Avenue  
Orillia, Ontario  
L3V 7V3

**SUBMITTED BY:**

ECO  
75 Courtneypark Drive West, Unit 1  
Mississauga, Ontario Canada  
L5W 0E3

AUGUST 25, 2017  
ECO Project No. 16120-230

**TABLE OF CONTENTS**

---

**1 INTRODUCTION..... 3**

**2 SURVEY SCOPE OF WORK AND GENERAL METHODOLOGY ..... 3**

**3 SAMPLING AND ANALYTICAL METHODOLOGY..... 3**

**4 EXPOSURE VALUES GUIDELINES..... 4**

**5 OBSERVATIONS AND DISCUSSION..... 4**

**6 SAMPLE RESULTS..... 6**

**7 CONCLUSIONS AND RECOMMENDATIONS ..... 7**

**8 STATEMENT OF LIMITATIONS ..... 9**

**9 SIGN-OFF ..... 9**

**APPENDICES**

- A. Wipe Sample Laboratory Analytical Report

## **1 INTRODUCTION**

ECOH Management Inc. (ECOH) was retained by CBRE Limited (“CBRE”) to complete a designated substances and hazardous materials assessment of select 2<sup>nd</sup> and 3<sup>rd</sup> floor boardrooms at the Ontario Provincial Police General Headquarters (OPP GHQ) facility located at 777 Memorial Avenue in Orillia, Ontario (hereafter referred to as the "Project Area"). The assessment included a visual assessment for the presence of Designated Substances (asbestos, lead, mercury, etc.) and other hazardous materials (such as mould, UFFI, PCBs, etc.) and the collection of wipe samples to be analyzed for lead content. ECOH understands that the survey was requested to identify potential environmental considerations associated with the Project Area and to provide recommendations as necessary to fulfil requirements set forth within the Ministry of Labour Codes as well as the Ontario Occupational Health and Safety Act. Mr. Kurtis Hill performed the survey on August 17<sup>th</sup>, 2017.

The following report presents the sampling and analytical methodologies, observations, results, conclusions and recommendations.

## **2 SURVEY SCOPE OF WORK AND GENERAL METHODOLOGY**

To ensure familiarity with the building, ECOH made reference to facility floor plans and other documents provided by the Client prior to commencing the assessment. ECOH looked for potential environmental concerns and the most common applications of building materials made with designated substance and hazardous material based on historical applications.

The areas surveyed and assessed was based on the Client’s project requirements (i.e. areas were work will be completed). Representative samples were collected via intrusive investigation above suspended ceilings.

The areas of investigation and sampling included:

- Boardroom 2-141
- Boardroom 3-064
- Boardroom 3-165
- Boardroom 3-070
- Boardroom 2-047

## **3 SAMPLING AND ANALYTICAL METHODOLOGY**

### Lead Wipe Sampling

Appropriate wipe sample locations were determined by ECOH representatives during the survey. The ECOH Inspector was responsible for removing ceiling tiles, for lead wipe samples to be collected.

Wipe samples for lead were collected within the Project Area following SW846-7000B Method using pre-moistened lead dust wipes manufactured by Lynx Products. Dust wipes meet standards outlined within the American Material (ASTM) Designation E1792: Standard specification for wipe sampling material for lead surface dust. The pre-moistened wipes are 20cm x 13cm and

contains water, polyorbate 20, methylparaben, and propylparaben. The wipe samples were submitted along with field blank(s) to EMSL Testing Laboratories for analysis by Flame Atomic Adsorption (SW846-7000B).

Samples were collected by wiping a 100cm<sup>2</sup> surface with 3-4 vertical S-strokes. The wipe was then folded inwards and the sample area was wiped again using 3-4 horizontal S-strokes. The wipe was folded inward once more and wiped using 3-4 vertical S-strokes. Each wipe, including blanks were placed in an individual sample bag prior to transportation to the laboratory.

Refer to Appendix A for the Chain of Custody and the Certificate of Analysis for wipe sampling.

#### 4 EXPOSURE VALUES GUIDELINES

##### Lead Wipe Sampling

Currently, there are no regulations regarding allowable concentration of lead dust on surfaces. There are, however, several different guidelines from which information can be used to draw a reasonable conclusion as to acceptable levels of lead in dust. These guidelines indicate different levels of allowable lead for different types of facilities and for site-specific conditions. The guideline value that is most applicable to site conditions of this project is 200 µg/ft<sup>2</sup>. This guideline value has been established by the;

- 1) US Department of the Navy; Bureau of Medicine and Surgery, Navy Environmental Health Centre; “*Indoor Firing Ranges Industrial Hygiene Technical Guide*”, dated May 2002.
- 2) Environmental Abatement Council of Ontario (EACO): “*Lead Guideline for Construction, Renovation, Maintenance or Repair*”, dated October 2014. (i.e. the clearance standard after lead abatement work).

#### 5 OBSERVATIONS AND DISCUSSION

1. The areas of investigation included locations throughout the 2<sup>nd</sup> and 3<sup>rd</sup> floor Boardrooms, as per the Client’s project requirements and project-specific floor plans provided to ECOH.
2. General site conditions and asbestos-related information for the Project Area includes the following.
  - a. Interior walls are composed of various non-asbestos materials (e.g. concrete block, poured concrete, drywall with non-asbestos joint compound, metal, wood, etc.).
  - b. Suspended ceiling systems are composed of various non-asbestos materials (e.g. lay-in ceiling tiles, etc.)
  - c. Flooring materials are composed of various non-asbestos materials (e.g. poured concrete, carpet, raised floor panels, etc.)
  - d. Mechanical systems (i.e. plumbing, HVAC systems, mechanical equipment, etc.) are either not insulated, or insulated with materials not suspected of containing asbestos (e.g. fibreglass, arma-flex, PVC, etc.).
  - e. Structural concrete and steel building components are not insulated.

3. Results of dust-wipe samples collected above suspended ceiling tiles throughout the Boardrooms indicate variable concentrations within the Project Area. Four (4) results which exceeded the guideline of  $200 \mu\text{g}/\text{ft}^2$  were identified. Refer to Table 1 for a summary of analytical results for lead concentrations in dust.

**Interior of wall cavities, and below raised floors within all boardrooms in the Project Area are assumed to be contaminated with lead-containing dust based on prior sampling completed throughout the facility for various projects.**

4. Although no regulations exist in Ontario, guidelines indicate that paints and surface coatings that contain 0.5% lead concentration by dry weight (i.e. concentrations of lead at or above 0.5%, or 5000 parts per million (ppm), which is comparable to 1 milligram per square centimetre ( $\text{mg}/\text{cm}^2$ ) when using an XRF analyzer) is considered to be a “lead-based paint or surface coating”. Paints or surface coatings that contain concentrations of lead greater than 0.1% by dry weight (1000 ppm), and less than 0.5% by dry weight (5000 ppm), is considered to be a “lead-containing paint or surface coating”. Paints or surface coatings that contain concentrations of lead at, or below, 0.1% by dry weight (1000 ppm) is considered to be a “low-level lead paint or surface coating”.

Paints in the Project Area are assumed to be low-level lead paint or surface coating.

5. Sound baffling panels, known to contain lead, were not observed above ceiling within the project area during this assessment.

No other major sources of lead-containing products were observed during this survey. However, the following should be noted.

- Lead may be present in wiring connectors and electric cable sheathing,
  - Lead may be present in solder joints on copper piping,
  - Lead may be present in cast iron pipe joint packing, and
  - Lead may be present in glazing of ceramic tiles.
6. The assessment for mould growth did not reveal any significant concerns.
  7. Free crystalline silica in the form of common construction sand is present in all concrete and masonry products within the work areas.
  8. Fluorescent lamp ballasts present within the Project Area are not suspected to contain polychlorinated biphenyls (PCBs) due to the date of building construction (i.e. after 1981).
  9. Other potential sources of PCBs within the Project Area, such as transformers, were not assessed for PCB content because this equipment is not expected to be affected during work of this project.
  10. Mercury vapour is assumed to be present within fluorescent lamp bulbs.
  11. Other designated substances including, Arsenic, Acrylonitrile, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, Ozone Depleting Substances, and Vinyl Chloride Monomer were not noted in significant quantities or forms, if at all, within the Project Area.

## 6 SAMPLE RESULTS

For reference, the laboratory analytical reports are provided in Appendix A.

Table 1 below indicates the sample collection information and results for lead wipe sampling.

<b>TABLE 1</b>			
Summary of Lead Concentrations in Wipe Samples			
<b>Sample Number</b>	<b>Sample Location</b>	<b>Sample Area (cm<sup>2</sup>)</b>	<b>Result for Lead (ug/ft<sup>2</sup>) (Guideline is 200 ug/ft<sup>2</sup>)</b>
16120-230-DW-01	Boardroom 2-141 (Above Ceiling)	100	<b>371.6</b>
16120-230-DW-02	Boardroom 2-141 (Above Ceiling)	100	120.8
16120-230-DW-03	Boardroom 2-141 (Above Ceiling)	100	111.5
16120-230-DW-04	Boardroom 2-141 (Desk Surface)	100	<92.9
16120-230-DW-05	Boardroom 3-064 (Above Ceiling)	100	<92.9
16120-230-DW-06	Boardroom 3-064 (Above Ceiling)	100	<92.9
16120-230-DW-07	Boardroom 3-064 (Above Ceiling)	100	<92.9
16120-230-DW-08	Boardroom 3-064 (Desk Surface)	100	<92.9
16120-230-DW-09	Boardroom 3-165 (Above Ceiling)	100	<92.9
16120-230-DW-10	Boardroom 3-165 (Above Ceiling)	100	<b>306.6</b>
16120-230-DW-11	Boardroom 3-165 (Above Ceiling)	100	<b>3808.9</b>
16120-230-DW-12	Boardroom 3-165 (Desk Surface)	100	<92.9
16120-230-DW-13	Boardroom 3-070 (Above Ceiling)	100	102.2
16120-230-DW-14	Boardroom 3-070 (Above Ceiling)	100	<92.9
16120-230-DW-15	Boardroom 3-070 (Above Ceiling)	100	<92.9

<b>TABLE 1</b>			
Summary of Lead Concentrations in Wipe Samples			
Sample Number	Sample Location	Sample Area (cm <sup>2</sup> )	Result for Lead (ug/ft <sup>2</sup> ) (Guideline is 200 ug/ft <sup>2</sup> )
16120-230-DW-16	Boardroom 3-070 (Desk Surface)	100	<92.9
16120-230-DW-17	Boardroom 2-047 (Above Ceiling)	100	<92.9
16120-230-DW-18	Boardroom 2-047 (Above Ceiling)	100	102.2
16120-230-DW-19	Boardroom 2-047 (Above Ceiling)	100	<b>7153.3</b>
16120-230-DW-20	Boardroom 2-047 (Desk Surface)	100	<92.9
16120-230-DW-21	Field Blank	N/A	<10 µg/wipe
16120-230-DW-22	Field Blank	N/A	<10 µg/wipe
<i>Results that exceed or approach the Guideline Limit of 200 ug/ft<sup>2</sup></i>			

## 7 CONCLUSIONS AND RECOMMENDATIONS

The following recommendations meet requirements of the Occupational Health and Safety Act. Asbestos recommendations meet the requirements of the Designated Substance – Regulation respecting *Asbestos on Construction Projects and in Buildings and Repair Operations*, Ontario Regulation 278/05. Based upon the observations of this assessment, ECOH offers the following for your consideration.

1. All work should employ worker hygiene practices in compliance with Environmental Abatement Council of Ontario (EACO) document; “*Construction Worker Hygiene Practices Guideline*”, dated 2014.
2. Work and/or proactive cleaning in areas, where lead-in-dust is above (or approaches) 200 µg/ft<sup>2</sup> should be conducted following Level 2 /Class 2 lead safety precautions detailed in the Ministry of Labour document *Guideline - Lead on Construction Projects*, dated April 2011 and the Environmental Abatement Council of Ontario (EACO) document; “*Lead Guideline for Construction, Renovation, Maintenance or Repair*”, dated October 2014:

Work in other locations (i.e. the “occupied” areas of each boardroom) where lead-in-dust is well below 200 µg/ft<sup>2</sup> (i.e. below 185 µg/ft<sup>2</sup> for the purposes of this discussion) does not require lead safety precautions, but should follow general health and safety procedures.

Level 2 /Class 2 lead safety precautions are recommended to complete work in the following locations:

- a. Within wall cavities and below raised floors with all five (5) boardrooms in the Project Area.
  - b. Above suspended ceilings in the three (3) following boardrooms:
    - i. Boardroom 2-141,
    - ii. Boardroom 3-165, and
    - iii. Boardroom 2-047.
3. As no asbestos-containing materials were identified within the Project Area, that are suspected of being disturbed during future renovation work, asbestos safety precautions are not required.
  4. During work of the project, if additional materials are revealed beyond what are described in this report (i.e. materials not identified or materials that are not homogenous to those identified or materials that become revealed during the work), additional testing for asbestos-content should be completed immediately and prior to disturbance of the material. Alternatively, these materials can be assumed to contain asbestos and the appropriate level of asbestos safety precautions must be implemented.
  5. Any work involving the disturbance of building materials assumed to contain lead (e.g. wiring connectors or electric cable sheathing, ceramic tiles, etc.) must be conducted following recommendations detailed within the Ministry of Labour document *Guideline - Lead on Construction Projects*, dated April 2011 and the Environmental Abatement Council of Ontario (EACO) document; “*Lead Guideline for Construction, Renovation, Maintenance or Repair*”, dated October 2014.
  6. Renovation, demolition or general construction work involving the removal of paints with trace concentrations of lead (i.e. paints that are considered low-level lead paint or surface coatings) can be completed without lead specific safety precautions provided that:
    - 1) Work does not include 'fume generating activities' (heat producing) such as welding, torching, burning, high temperature cutting, etc.,
    - 2) Work does not include aggressive removal of painted surfaces by grinding or sand-blasting,
    - 3) Dust levels are maintained below  $3\text{mg}/\text{m}^3$ , and
    - 4) General health and safety construction procedures are implemented, which would include dust suppression methods, proper respiratory protection (minimum of a 1/2-face respirator) and protective clothing, as is appropriate for the work being completed.
  7. Any work involving the disturbance of materials that may contain silica should be conducted following recommendations detailed in the Ministry of Labour document “*Guideline - Silica on Construction Projects*”, dated April 2011.



8. The presence of mercury within assembled units (e.g. vapour within fluorescent light bulbs) should not be considered a hazard provided that the assembled units remain sealed and intact. Avoid inhalation of mercury vapour is exposed/released.
9. Other designated substances, if present, would not be expected to be a source of concern during work of this project and should be adequately addressed using general health and safety precautions including, in part, the use of dust suppression techniques and appropriate respiratory protection.
10. Should work be required in other areas of the building, beyond the area subjected to this assessment, additional site investigations should be completed to assess the presence of designated substances or hazardous materials.

Details of the above investigation and recommendations are based upon the scope of work understood by ECOH at the time of assessment. Should changes occur to any aspect of the project scope of work, the assessment to determine if additional site investigations are required should be completed by ECOH.

## **8 STATEMENT OF LIMITATIONS**

This report was prepared for the exclusive use of CBRE Limited and is based on site observations and sampling performed within the OPP GHQ Orillia facility on August 17<sup>th</sup>, 2017. Only those items, which are capable of being observed and are reasonably obvious to ECOH Management Inc. (ECOH) personnel, or have been identified to ECOH by other parties, can be reported. ECOH has exercised a degree of thoroughness and competence that is consistent with the profession during the site review and sampling program. ECOH considers the opinions and information as they are presented in this report to be factual at the time of the investigation of the Project Area.

It is important to note the investigation was completed with the utmost care and based on our extensive expertise in carrying out investigations. ECOH believes that the information collected during the assessment concerning the Property is reliable. No other warranties are implied or expressed. ECOH, to the best of its knowledge, believes this report to be accurate; however, ECOH cannot guarantee the completeness or accuracy of information supplied to ECOH by third parties.

ECOH is an Environmental Consulting Company; as such any results or conclusions presented in this report should not be construed as legal advice. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. ECOH accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions based on this report.

## **9 SIGN-OFF**

We trust that this report meets with your requirements and we thank for the opportunity to be of service. Should you have any questions, please do not hesitate to contact us at (905) 795-2800.

**ECOH**

Environmental Consulting  
Occupational Health

**Prepared By:**

**Reviewed By:**



Kurtis Hill  
Environmental Technologist

Chris Turner, B.E.S  
Project Manager

**APPENDIX A**  
**WIPE SAMPLE LABORATORY ANALYTICAL REPORT**

**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](mailto:torontolab@emsl.com)

EMSL Canada Or	551709183
CustomerID:	55ECOH45
CustomerPO:	16120-230
ProjectID:	

Attn: **Kurtis Hill**  
**ECOH Management, Inc.**  
**75 Courtneypark Drive West**  
**Unit 1**  
**Mississauga, ON L5W 0E3**

Phone: (905) 795-2800  
 Fax: (905) 795-2870  
 Received: 08/18/17 11:42 AM  
 Collected: 8/17/2017

Project: 16120-230

**Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)\***

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area (cm<sup>2</sup>)</i>	<i>Lead Concentration</i>
16120-230-DW-01 Site: Above Ceiling (Loc.Room 2-141)	551709183-0001	8/17/2017	8/22/2017	100 cm <sup>2</sup>	40 µg/100 cm <sup>2</sup>
16120-230-DW-02 Site: Above Ceiling (Loc.Room 2-141)	551709183-0002	8/17/2017	8/22/2017	100 cm <sup>2</sup>	13 µg/100 cm <sup>2</sup>
16120-230-DW-03 Site: Above Ceiling (Loc.Room 2-141)	551709183-0003	8/17/2017	8/22/2017	100 cm <sup>2</sup>	12 µg/100 cm <sup>2</sup>
16120-230-DW-04 Site: Desk Surface (Loc.Room 2-141)	551709183-0004	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-05 Site: Above Ceiling (Loc.Room 3-064)	551709183-0005	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-06 Site: Above Ceiling (Loc.Room 3-064)	551709183-0006	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-07 Site: Above Ceiling (Loc.Room 3-064)	551709183-0007	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-08 Site: Desk Surface (Loc.Room 3-064)	551709183-0008	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-09 Site: Above Ceiling (Loc.Room 3-165)	551709183-0009	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-10 Site: Above Ceiling (Loc.Room 3-165)	551709183-0010	8/17/2017	8/22/2017	100 cm <sup>2</sup>	33 µg/100 cm <sup>2</sup>
16120-230-DW-11 Site: Above Ceiling (Loc.Room 3-165)	551709183-0011	8/17/2017	8/22/2017	100 cm <sup>2</sup>	410 µg/100 cm <sup>2</sup>
16120-230-DW-12 Site: Desk Surface (Loc.Room 3-165)	551709183-0012	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-13 Site: Above Ceiling (Loc.Room 3-070)	551709183-0013	8/17/2017	8/22/2017	100 cm <sup>2</sup>	11 µg/100 cm <sup>2</sup>
16120-230-DW-14 Site: Above Ceiling (Loc.Room 3-070)	551709183-0014	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-15 Site: Above Ceiling (Loc.Room 3-070)	551709183-0015	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>

Rowena Fanto, Lead Supervisor  
 or other approved signatory

\*Analysis following Lead in Dust by EMSL SOP/ Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. ug/wipe = ug/ft<sup>2</sup> x area sampled in ft<sup>2</sup>. 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 (such as volume sampled) or analytical method limitations. Samples received in good condition unless otherwise noted. The lab is not responsible for data reported in µg/ft<sup>2</sup> which is dependent on the area provided by non-lab personnel. The test results contained within this report meet the requirements of NELAC unless otherwise noted. "<" (less than) results signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

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

Report Amended: 08/23/2017 10:32:02 Replaces the Initial Report 08/23/2017 08:35:02. Reason Code: Data Entry-Change to Location

**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](mailto:torontolab@emsl.com)

EMSL Canada Or 551709183

CustomerID: 55ECOH45

CustomerPO: 16120-230

ProjectID:

Attn: **Kurtis Hill**  
**ECOH Management, Inc.**  
**75 Courtneypark Drive West**  
**Unit 1**  
**Mississauga, ON L5W 0E3**

Phone: (905) 795-2800  
 Fax: (905) 795-2870  
 Received: 08/18/17 11:42 AM  
 Collected: 8/17/2017

Project: 16120-230

**Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)\***

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area (cm<sup>2</sup>)</i>	<i>Lead Concentration</i>
16120-230-DW-16 Site: Desk Surface (Loc.Room 3-070)	551709183-0016	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-17 Site: Above Ceiling (Loc.Room 2-047)	551709183-0017	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-18 Site: Above Ceiling (Loc.Room 2-047)	551709183-0018	8/17/2017	8/22/2017	100 cm <sup>2</sup>	11 µg/100 cm <sup>2</sup>
16120-230-DW-19 Site: Above Ceiling (Loc.Room 2-047)	551709183-0019	8/17/2017	8/22/2017	100 cm <sup>2</sup>	770 µg/100 cm <sup>2</sup>
16120-230-DW-20 Site: Desk Surface (Loc.Room 2-047)	551709183-0020	8/17/2017	8/22/2017	100 cm <sup>2</sup>	<10 µg/100 cm <sup>2</sup>
16120-230-DW-21 Site: Field Blank	551709183-0021	8/17/2017	8/21/2017	n/a	<10 µg/wipe
16120-230-DW-22 Site: Field Blank	551709183-0022	8/17/2017	8/21/2017	n/a	<10 µg/wipe

Rowena Fanto, Lead Supervisor  
 or other approved signatory

\*Analysis following Lead in Dust by EMSL SOP/ Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. ug/wipe = ug/ft<sup>2</sup> x area sampled in ft<sup>2</sup>. 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 (such as volume sampled) or analytical method limitations. Samples received in good condition unless otherwise noted. The lab is not responsible for data reported in µg/ft<sup>2</sup> which is dependent on the area provided by non-lab personnel. The test results contained within this report meet the requirements of NELAC unless otherwise noted. "<" (less than) results signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

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

Report Amended: 08/23/2017 10:32:02 Replaces the Initial Report 08/23/2017 08:35:02. Reason Code: Data Entry-Change to Location