



# Highview Elementary School Mechanical Distribution Replacement

## Designated Substance Audit Report

**Project Location:**

1040 Queensdale Avenue East, Hamilton, ON

**Prepared for:**

Hamilton-Wentworth District School Board  
20 Education Court, Hamilton, ON

**Prepared by:**

MTE Consultants Inc.  
1016 Sutton Drive, Unit A  
Burlington, ON L7L 6B8

February 22, 2024

**MTE File No.:** 38369-200





## Contents

1.0	Introduction .....	1
1.1	Authorization .....	1
2.0	Scope of Work .....	1
3.0	Methodology and Assessment Criteria .....	1
4.0	Assessment and Results .....	2
4.1	Findings and Analytical Results .....	2
4.1.1	Asbestos .....	3
4.1.2	Lead .....	3
4.1.3	Mercury .....	4
4.1.4	Silica .....	4
4.1.5	Mould .....	4
4.1.6	Polychlorinated Biphenyls (PCB) .....	4
4.1.7	Ozone-Depleting Substances (ODS) .....	4
4.2	Conclusions and Recommendations .....	4
4.2.1	Asbestos .....	5
4.2.2	Lead .....	5
4.2.3	Mercury .....	6
4.2.4	Silica .....	6
4.2.5	Mould .....	6
4.2.6	Polychlorinated Biphenyls (PCB) .....	6
4.2.7	Ozone Depleting Substances (ODS) .....	6
5.0	Limitations .....	7

## Appendices

Appendix A	Tables
Appendix B	Laboratory Certificates of Analysis
Appendix C	Figures
Appendix D	Photographic Log

# 1.0 INTRODUCTION

## 1.1 Authorization

MTE Consultants Inc. (MTE) was retained by Hamilton-Wentworth District School Board (the Client) to conduct a Designated Substance Audit for the building located at 1040 Queensdale Avenue East in Hamilton, Ontario.

The purpose of the audit was to identify the presence of Designated Substances within the building in accordance with Section 30 of the Occupational Health & Safety Act (OHSA), in advance of boiler room mechanical upgrades. This report meets the requirements of Section 30 of the OHSA and the requirements of Ontario Regulation (O. Reg.) 278/05.

## 2.0 SCOPE OF WORK

As requested by the Client, this assessment was limited to the boiler room. This area is referred to in the following sections as the “Subject Area”.

The Scope of Work for this assessment was completed by MTE and included the following activities:

- Review of existing or historical reports and documentation pertaining to Designated Substances within the building;
- Visual inspection of accessible locations within the Subject Area to identify the following suspect Designated Substances and Hazardous Building Materials:
  - Asbestos;
  - Lead;
  - Mercury;
  - Silica;
  - Mould growth;
  - Ozone Depleting Substances; and
  - Polychlorinated Biphenyls limited to fluorescent light ballasts/sealants.
- The following Designated Substances are not expected to be present due to the building use or in a form that is hazardous: Acrylonitrile, Arsenic, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, and Vinyl Chloride;
- Collection of bulk building material samples suspected to contain asbestos;
- Collection of paint scrape samples suspected to contain lead;
- Submission of samples to an accredited and/or qualified laboratory;
- Interpretation of laboratory results; and,
- Preparation of this report of findings and recommendations.

## 3.0 METHODOLOGY AND ASSESSMENT CRITERIA

This audit was conducted using visual and laboratory identification methods for the assessment of materials outlined in Section 2.0 and their corresponding location and use. Materials that are determined to be asbestos-containing materials (ACM) are further classified by their friability and condition. The areas outlined in Section 2.0 were inspected and limited to building components, materials and service connections. Notwithstanding that reasonable attempts

were made to identify all Designated Substances, the possibility of concealed substances and material exists and may not become visible until substantial demolition has occurred and therefore are currently undocumented. All work was conducted in accordance with industry accepted methods and MTE Standard Operating Procedures and did not include the following:

- Materials indicated in this report as “Potentially Concealed”;
- Locations that may be hazardous to the surveyor (located at heights, electrical equipment, confined spaces);
- Where invasive inspection could cause consequential damage to the property or impair the integrity of the equipment, such as roof system, sealants, exterior finishes, underground services or components of mechanical equipment;
- Locations concealed by building finishes that require substantial demolition or removal for access or determination of quantities (plumbing or electrical lines);
- Non-permanent items or personal contents, furnishings; and,
- Settled dust or airborne agents unless otherwise stated.

## 4.0 ASSESSMENT AND RESULTS

An inspection of the building was conducted by MTE on January 4, 2024.

A description of the building and assessed finishes is provided below. Refer to Section 4.1 for a summary of findings.

Building Element	Description
<b>Building Structure</b>	Concrete Concrete block
<b>Mechanical Systems/Insulations</b>	Boiler heating Fiberglass insulation covered with Polyvinyl Chloride (PVC)
<b>Electrical/Plumbing Systems</b>	Fluorescent Light tubes Copper piping with solder
<b>Floor Finishes</b>	Concrete
<b>Wall Finishes</b>	Concrete Block
<b>Ceiling Finishes</b>	Asbestos cement (Transite)

As part of this assignment, MTE reviewed “Highview Asbestos Report” which was prepared by Regulates Substance Team Hamilton-Wentworth District School Board and dated January 2023. Review of this report indicated the following Designated Substances have been confirmed or suspected present within the Subject Area:

Item	Material Description	Location
<b>Confirmed ACM</b>	Transite Ceiling Panels (Chrysotile 78%)	Boiler Room

Information provided by others was relied on in good faith in the preparation of this report and was accepted as accurate without independent verification or confirmation by MTE. No other warranty or representation expressed or implied as to the accuracy of the information, conclusions or recommendations is included or intended in this report.

### 4.1 Findings and Analytical Results

A summary of sampling locations and analytical results are included in **Appendix A**.

Laboratory certificates of analysis are included in **Appendix B**.

Figures of inspected areas are included in **Appendix C**.

A Photographic Log is Included in **Appendix D**.

A detailed summary of findings and recommended actions is provided in **Table 4.3 of Appendix A**.

#### **4.1.1 Asbestos**

Asbestos was used in building materials throughout the years with a peak usage in the 1950s and 1960s. While the manufacture of most ACM was banned in the 1970s, buildings constructed in the 1980s have the potential for ACM as well. In 1986, legislation limiting the use of asbestos in consumer products was introduced.

As part of this inspection, a total of 3 bulk samples of suspect ACM were submitted for asbestos analysis with a total of 3 analyses being performed. The difference between the number of samples submitted and the number of samples analysed can be a function of either the stop-positive method or the requirement of analyzing multiple layers, performed by the laboratory, from a single sample reported as additional samples or subsets of a sample.

Bulk samples were submitted for asbestos analysis to Paracel Laboratories Ltd. (Paracel), in Mississauga, Ontario. Paracel is certified under the Canadian Association of Laboratory Accreditation to perform asbestos analysis of bulk samples (accreditation number A3762). Laboratory analysis was conducted in accordance with the United States Environmental Protection Agency (USEPA), Test Method EPA/600-R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June, 1993 by Polarized Light Microscopy (PLM) as prescribed by O. Reg. 278/05.

Based on the laboratory results and visual identification, ACM was confirmed present at the time of the inspection. In addition, suspect ACM was either observed or may potentially be concealed by building finishes.

#### **4.1.2 Lead**

Lead was historically used in mortar pigments, ceramic glazing; plumbing solder, electrical equipment and electronics solder, in pipe gaskets as packing in cast iron bell and spigot joints of sanitary drains, flexible plumbing connections, flashing panels, acoustical dampeners, phone cable casing and some architectural applications. In buildings constructed after 1990, these applications are no longer applicable outside of specialized uses (shielding for medical imaging etc.).

As part of this inspection, a total of 3 paint scrape samples were collected from surfaces and represent the paint colours observed throughout the Subject Area.

Samples were submitted for laboratory analysis by ASTM D3335-85A "Standard Method to Test for Low Concentrations of Lead in Paint by Atomic Absorption Spectrophotometry" following MOE Method E3470 Inductively Coupled Plasma Optical Emission Spectrometry to Paracel Laboratories Ltd., in Ottawa, Ontario. Paracel is accredited by the Canadian Association of Laboratory Accreditation to perform bulk lead analysis of paint.

Based on the laboratory results and visual identification, lead-containing materials were confirmed present at the time of the inspection. In addition, lead-containing solder on copper pipe connections or lead pipe gaskets may potentially be concealed in buried lines or wall cavities.

### 4.1.3 Mercury

Mercury is typically used in building service applications such as fluorescent light tubes, compact fluorescent bulbs, metal halide (sodium halide) lamp bulbs, and neon lights as a vapour. Mercury may exist in thermostats and pipe or mechanical equipment thermometers as a liquid. Mercury is presumed to be present in the above materials.

Mercury-containing materials were visually identified at the time of the inspection.

### 4.1.4 Silica

Silica is present in rock, stone, soil, and sand. Masonry products such as concrete block, brick, and mortar, as well as concrete and associated products contain silica. Due to its ubiquitous nature, silica was historically used in a wide variety of building materials and is still used today in new construction.

Building materials that are presumed to contain silica were visually identified at the time of the inspection.

### 4.1.5 Mould

No water damaged or mould growth impacted building materials were observed during the inspection.

### 4.1.6 Polychlorinated Biphenyls (PCB)

Suspect PCB-containing light ballasts were visually identified during the inspection. All live electrical equipment that could not be properly and safely de-energized was not assessed, therefore light ballasts were not inspected. Light ballasts which were not accessed, will require additional investigation to determine their PCB content when removed from service.

### 4.1.7 Ozone-Depleting Substances (ODS)

ODS are chemical compounds that include chlorofluorocarbons (cfcs), hydrochlorofluorocarbons (hcfcs), halons, methyl bromide, carbon tetrachloride, hydrobromofluorocarbons, chlorobromomethane, and methyl chloroform which are widely used in cooling and refrigeration. The use of ODS is regulated under Ontario Regulation 463/10 *Ozone Depleting Substances and Other Halocarbons Made under the Environmental Protection Act*.

No building components presumed to contain ODS were identified at the time of the inspection.

## 4.2 Conclusions and Recommendations

A detailed summary of recommended actions is provided in **Table 4.3 of Appendix A**.

In accordance with Section 30 of OHSA and Section 8 of O. Reg. 278/05, the Owner must provide a copy of this report to all contractors doing work at the building. The Owner must also provide a copy of this report to all prospective contractors.

Should any additional suspect Designated Substances be discovered during building renovation demolition, work in the vicinity should cease and the materials should not be disturbed until proper notification, testing and abatement instructions are provided. All waste generated as a result of any and all work at the Site must be handled, transported and disposed of in accordance with Ontario Regulation 347 made under the Environmental Protection Act and local by-laws. Based on the assessment findings and analytical results, the following abatement

measures are presented. It should be noted that the recommended actions are the minimum required actions, as prescribed by the appropriate Acts, regulations, guidelines, standards, codes and general best practice measures.

#### **4.2.1 Asbestos**

ACMs were identified during the assessment. If these materials, including those deemed or suspected, will be disturbed, or will likely be disturbed, during building maintenance, renovations, construction, or demolition activities, they must be handled and disposed of in accordance with the procedures prescribed by O. Reg. 278/05.

All asbestos work must be conducted by contractors who are trained in the type of asbestos operations required, and should be overseen by a qualified third party Health, Safety and Environmental professional. In order to conduct Type 3 asbestos operations, contractors must be certified as Asbestos Abatement Workers AAW (Trade code 253W) and Asbestos Abatement Supervisors AAS (Trade code 253S) by The Ministry of Training, Colleges and Universities (Ministry of Advanced Education and Skills Development) as prescribed by Section 20 of O. Reg. 278/05. Suspect or visually confirmed ACM must be deemed to be asbestos-containing and treated as if they contain a type of asbestos other than Chrysotile.

ACM may be present in concealed locations and if construction, renovation, alteration, or maintenance activities are planned, invasive inspections of concealed locations for potential ACM must be performed prior to such activities.

Should any suspect ACM be discovered during the course of construction, renovation, alteration, or maintenance activities, work which disturbs the material must cease immediately. Suspect ACM must be treated as asbestos-containing or sampled prior to disturbance to assess the presence of asbestos.

#### **4.2.2 Lead**

Lead-based paint, lead-containing paint, and suspect lead-containing solder on plumbing connections were identified. As such special requirements for the management, handling and disposal of lead-containing materials by the owner, constructor, contractor, sub-contractors and workers apply. The abatement contractor should consult Environmental Abatement Council of Canada's (EACC) *Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014)* for the procedures and methods required to remove and dispose of lead-containing materials.

Low level lead-containing paint is also present and the following general procedures are recommended as a precautionary measure as per Environmental Abatement Council of Canada's (EACC) *Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014)*:

- General dust control;
- The washing of hands and face at on-site facilities;
- No smoking, eating, chewing gum or drinking in the work area; and,
- No removal of painted surfaces by means of abrasive blasting.



### **4.2.3 Mercury**

Mercury-containing materials were identified. All mercury containing materials or sources should be removed, intact, prior to any work which may disturb or damage them and cause worker exposure to mercury liquid and/or vapour.

On-site crushing of mercury-containing materials should not occur. Care should be taken to ensure safe storage of the above until recycling or disposal can be coordinated. Under current legislation, mercury waste requires handling and disposal in accordance with Ontario Regulation 490/09 of the OHSA and Ontario Regulation 347 of the Environmental Protection Act.

### **4.2.4 Silica**

Silica is presumed to be present; therefore, special requirements for management and handling are required. The contractor should also consult MOL Occupational Health and Safety Branch's Guideline: *Silica on Construction Projects* (April 2011) for the procedures and methods required to remove and dispose of silica-containing materials.

### **4.2.5 Mould**

No water damage or suspect mould growth was observed during the assessment therefore no special management and handling requirements are warranted.

### **4.2.6 Polychlorinated Biphenyls (PCB)**

Suspect PCB-containing fluorescent light ballasts were identified but could not be conclusively classified as PCB-containing or non-PCB-containing.

It is the responsibility of the owner to inspect, or ensure the inspection of all light ballasts as they are removed from service to make certain they are properly classified as PCB-containing or non-PCB containing. Fixtures will require dismantling to access date stamps (located on the back of the ballast) in order to be correctly classified in accordance with Environment Canada's document "*Identification of Lamp Ballasts Containing PCBs, Report EPS 2/CC/2 (revised), August 1991*".

Statutory Orders and Regulations (SOR)/2008-273, the *PCB Regulations*, made under the *Canadian Environmental Protection Act*, permits continued use of in-service PCB-containing light ballasts until the end of service life or until December 31, 2025.

### **4.2.7 Ozone Depleting Substances (ODS)**

No building components presumed to contain ODS were identified and no special requirements for management, handling and disposal by the owner, constructor, contractor, sub-contractors and workers apply.



## 5.0 LIMITATIONS

Services performed by **MTE Consultants Inc.** (MTE) were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Environmental Engineering & Consulting profession. No other representation expressed or implied as to the accuracy of the information, conclusions or recommendations is included or intended in this report.

This report was completed for the sole use of MTE and the Client. It was completed in accordance with the approved Scope of Work referred to in Section 2.0. As such, this report may not deal with all issues potentially applicable to the site and may omit issues that are or may be of interest to the reader. MTE makes no representation that the present report has dealt with all-important environmental features, except as provided in the Scope of Work. All findings and conclusions presented in this report are based on site conditions, as they existed during the time period of the investigation. This report is not intended to be exhaustive in scope or to imply a risk-free facility.

Any use which a third party makes of this report, or any reliance on, or decisions to be made based upon it, are the responsibility of such third parties. MTE accepts no responsibility for liabilities incurred by or damages, if any, suffered by any third party as a result of decisions made or actions taken, based upon this report. Others with interest in the site should undertake their own investigations and studies to determine how or if the condition affects them or their plans.

It should be recognized that the passage of time might affect the views, conclusions and recommendations (if any) provided in this report because environmental conditions of a property can change. Should additional or new information become available, MTE recommends that it be brought to our attention in order that we may re-assess the contents of this report.

All of which is respectfully submitted,

**MTE Consultants Inc.**



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AKR:

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# Appendix A

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## Tables

**TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE**

Sample #	Location	Material Description	Asbestos Results (% Type)	Is Material ACM
S01A	ROOM 124 - BOILER ROOM	CONCRETE BLOCK MORTAR	ND	NO
S01B	ROOM 124 - BOILER ROOM	CONCRETE BLOCK MORTAR	ND	NO
S01C	ROOM 124 - BOILER ROOM	CONCRETE BLOCK MORTAR	ND	NO

**NA:** Not Analyzed due to stop positive method **ND:** No asbestos fibres detected above the laboratory minimum detection limit

A bulk material sample containing 0.5% or more asbestos therefore establishes that material as asbestos-containing. In accordance with Table 1 of O. Reg. 278/05, a minimum number of samples for the material to be classified as non asbestos. A homogeneous material is defined by O. Reg. 278/05 "as material that is uniform in colour and texture". Homogeneous samples are identified by an alphabetical suffix to sample names to represent multiple samples of a homogeneous material. When a homogeneous material is analysed it is determined to be asbestos-containing upon the first positive detection of asbestos equal to or greater than 0.5%. Subsequent samples of the same material are therefore not analysed. Some bulk samples are comprised of multiple layers and as such will require multiple analysis. In such cases each layer is isolated at the laboratory and analysed individually to determine asbestos content. As a result the laboratory may report additional samples beyond the submitted number of samples or include multiple analyses as subsets within a sample.

**TABLE 4.2: LEAD IN PAINT SAMPLE SUMMARY TABLE**

Sample #	Location	Colour	Material	Lead Content (ug/g)	Classification
LP1	ROOM 124 - BOILER ROOM	WHITE	WALL	116	LOW LEVEL LEAD-CONTAININ
LP2	ROOM 124 - BOILER ROOM	GREY	FLOOR	3,530	LEAD-CONTAINING
LP3	ROOM 124 - BOILER ROOM	YELLOW	GAS LINES	101,000	LEAD-BASED
<p>"&lt;": The samples analysed reported concentrations of lead to be less than 1000 ug/g and are therefore classified as low level lead-containing. However, no lead concentrations were reported above the sample specific laboratory detection limit.</p> <p>As outlined in EACO's Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014), for the purpose of classifying surface coatings and mortars by laboratory analysis, any material containing lead at a concentration:</p> <ul style="list-style-type: none"> <li>• Greater than 0.5% by weight (5,000 µg/g, mg/kg, ppm) is considered lead-based;</li> <li>• Between 0.1 % and 0.5% by weight (1,000 to 5,000 µg/g, mg/kg, ppm) is considered lead-containing; or</li> <li>• Less than 0.1% (1,000 µg/g, mg/kg, ppm) is considered low level lead-containing.</li> </ul>					

**Table 4.3 - Summary of Designated Substances and Recommended Actions**

**Highview Elementary School, 1040 Queensdale Avenue East, Hamilton, ON**

<b>Material</b>	<b>Location(s)</b>	<b>Material Description</b>	<b>Management Requirements If No Impacts to Material</b>	<b>Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities</b>
<b>Asbestos Non-Friable</b>	Boiler Room	Asbestos Cement (Transite) Board on Ceiling	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
<b>Lead-Based Paint</b>	Boilder Room	Yellow Paint on Gas Lines	In place management in accordance with EACC's Lead Guideline	Removal as required prior to maintenance, renovations, construction or demolition activities in accordance with EACC's Lead Guideline as a: Class 1, Class 2A, Class 3A, or a Class 3B Operation  If paint is not removed prior to disposal of any metal building finishes, these materials must be deemed hazardous waste, then manifested and disposed of off-site at a MOECP facility that is licensed to accept hazardous waste.  If this paint is not removed prior to disposal of any other building finishes, these materials require analysis of Leachable Lead according to Ontario Regulation 558/00. If confirmed or deemed hazardous waste, materials must then be manifested and disposed of off-site at a MOECP facility that is licensed to accept hazardous waste.
<b>Lead-Containing Paint</b>	Boiler room	Grey Paint on Floors	In place management in accordance with EACC's Lead Guideline	Removal as required prior to maintenance, renovations, construction or demolition activities in accordance with EACC's Lead Guideline as a: Class 1, Class 2A, Class 3A, or a Class 3B Operation
<b>Low Level Lead-Containing Paint</b>	Boiler room	White Paint on Walls	None	General hygiene procedures during renovation activities: <ul style="list-style-type: none"> <li>• General dust control,</li> <li>• Washing of hands and face at on-site facilities,</li> <li>• No smoking, eating, chewing gum or drinking in the work area,</li> <li>• No abrasive blasting.</li> </ul>
<b>Lead</b>	Throughout Interior of Building on Plumbing Connections	Lead Solder on Copper Pipe	In place management in accordance with EACC's Lead Guideline	Removal prior to renovation/demolition activities in accordance with EACC's Lead Guideline as a: Class 1 Operation
<b>Potentially Concealed Lead</b>	Concealed on Sanitary/Waste Lines	Lead Packed Pipe Gaskets	None	Invasive inspection prior to renovation or demolition activities. If confirmed present, removal in accordance with EACC's Lead Guideline as a: Class 1 Operation
<b>Mercury</b>	Throughout Interior of Building in Light Fixtures	Fluorescent Light Tubes in Light Fixtures	None	Intact removal and storage with no on-site crushing and disposal of materials to a licensed facility

**Table 4.3 - Summary of Designated Substances and Recommended Actions**

**Highview Elementary School, 1040 Queensdale Avenue East, Hamilton, ON**

<b>Material</b>	<b>Location(s)</b>	<b>Material Description</b>	<b>Management Requirements If No Impacts to Material</b>	<b>Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities</b>
<b>Silica</b>	Throughout Interior and Exterior of Building	Concrete	None	Conduct any work during renovation, demolition activities in accordance with the Ministry of Labour Guideline Silica on Construction Projects
<b>Potentially concealed PCBs</b>	Light Fixtures Throughout	Fluorescent Light Ballasts in Light Fixtures	SOR/2008-273, the PCB Regulations, permits continued use of in-service PCB-containing light ballasts until the end of service life or until December 31, 2025	Assess Each Ballast Upon Removal From Service Appropriate storage and disposal of any PCB-containing ballasts in accordance with SOR/2008-273

Notes:

- 1) A copy of this report should be provided to all prospective contractors prior to quotation, in accordance with Section 30 of the Occupational Health and Safety Act.
- 2) Recommended actions are the minimum required actions, as prescribed by the appropriate Acts, regulations, guidelines, standards, codes and general best practice measures. Prior to demolition, the Contractor may choose to alter the approach and combine or break out sections of work. This is acceptable provided that the appropriate Acts, regulations, guidelines, standards and codes are followed and afford protection for the health and safety of workers, occupants and the public that is at least equal to the protection that would be provided by complying with the minimum requirements.
- 3) All waste generated is subject to characterization and disposal in accordance with Ontario Regulation 347.

# Appendix B

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## Laboratory Certificates of Analysis



## Certificate of Analysis

**MTE Consultants Inc. (Burlington)**

1016 Sutton Drive, Unit A  
Burlington, ON L7L 6B8  
Attn: Gavin Oakes

Client PO:  
Project: 38369-200 - Highview PS Boiler Room DSA  
Custody:

Report Date: 23-Jan-2024  
Order Date: 5-Jan-2024

Revised Report

**Order #: 2401228**

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

Parcel ID	Client ID
2401228-01	S01A - Concrete Block Wall
2401228-02	S01B - Concrete Block Wall
2401228-03	S01C - Concrete Block Wall

Approved By:



Emma Diaz  
Senior Analyst

Certificate of Analysis  
 Client: MTE Consultants Inc. (Burlington)  
 Client PO:

Report Date: 23-Jan-2024  
 Order Date: 5-Jan-2024

Project Description: 38369-200 - Highview PS Boiler Room DSA

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

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2401228-01	04-Jan-24	Grey	Cement	No	Client ID: S01A - Concrete Block Wall	
					Non-Fibers	100
2401228-02	04-Jan-24	Grey	Cement	No	Client ID: S01B - Concrete Block Wall	
					Non-Fibers	100
2401228-03	04-Jan-24	Grey	Cement	No	Client ID: S01C - Concrete Block Wall	
					Non-Fibers	100

**Analysis Summary Table**

Analysis	Method Reference/Description	Lab Location	Lab Accreditation	Analysis Date
Asbestos, PLM Visual Estimation	AppE to SubE of 40CFR Part763 and EPA/600/R-93/116	1 - Mississauga	CALA 3762	11-Jan-24

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

**Work Order Revisions | Comments**

REVISION 1 - This report includes a updated sample ID's per the client.



2401228



d Office  
2319 St. Laurent Blvd.  
wa, Ontario K1G 4J8  
-800-749-1947  
aracel@paracellabs.com

**Chain of Custody**  
(Lab Use Only)

Page 1 of 1

Client Name: MTE Consultants	Project Reference: 36369-200 - Highview PS Boiler Room DSA	<b>Turnaround Time:</b> <input type="checkbox"/> Immediate <input type="checkbox"/> 1 Day <input type="checkbox"/> 4 Hour <input type="checkbox"/> 2 Day <input type="checkbox"/> 8 Hour <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Regular
Contact Name: Gavin Oakes; Aaron Rows	Quote #: MTE Standing Offer	
Address: 1016 Sutton Drive, Unit A Burlington, ON L7L 6B8	PO #:	
Telephone: 905-639-2552	Email Address: goakes@mte85.com arows@mte85.com	
Date Required: _____		

**ASBESTOS & MOLD ANALYSIS**

Matrix:  Air  Bulk  Tape Lift  Swab  Other    Regulatory Guideline:  ON  QC  AB  SK  Other:

Analyses:  Microscopic Mold  Culturable Mold  Bacteria GRAM  PCM Asbestos  PLM Asbestos  Chatfield Asbestos  TEM Asbestos

Parcel Order Number: 2401228		Asbestos - Bulk			
Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	S01 A-C - Cement Pipe	4 Jan 23	-	PLM	<input checked="" type="checkbox"/>
2					<input type="checkbox"/>
3					<input type="checkbox"/>
4					<input type="checkbox"/>
5					<input type="checkbox"/>
6					<input type="checkbox"/>
7					<input type="checkbox"/>
8					<input type="checkbox"/>
9					<input type="checkbox"/>
10					<input type="checkbox"/>
11					<input type="checkbox"/>
12					<input type="checkbox"/>

\* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments:				Method of Delivery: <i>Knob</i>	
Relinquished By (Sign):	Received at Depot:	Received at Lab: <i>JR</i>	Verified By: <i>JR</i>		
Relinquished By (Print):	Date/Time:	Date/Time: <i>Jan 5/24</i>	Date/Time: <i>Jan 5/24</i>		
		<i>13:00</i>		<i>15:00</i>	

## Certificate of Analysis

**MTE Consultants Inc. (Burlington)**

1016 Sutton Drive, Unit A  
Burlington, ON L7L 6B8  
Attn: Gavin Oakes

Client PO:  
Project: 38369-200 - Highview PS Boiler Room DSA  
Custody:

Report Date: 10-Jan-2024  
Order Date: 5-Jan-2024

**Order #: 2401191**

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

Parcel ID	Client ID
2401191-01	LP01 - White - Walls
2401191-02	LP02 - Grey - Floors
2401191-03	LP03 - Yellow - Gas Lines

Approved By:



Milan Ralitsch, PhD  
Senior Technical Manager

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

Certificate of Analysis

Report Date: 10-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 5-Jan-2024

Client PO:

Project Description: 38369-200 - Highview PS Boiler Room DSA

**Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	9-Jan-24	9-Jan-24

**Qualifier Notes:**

None

**Sample Data Revisions**

None

**Work Order Revisions/Comments:**

None

**Other Report Notes:**

- n/a: not applicable
- ND: Not Detected
- MDL: Method Detection Limit
- Source Result: Data used as source for matrix and duplicate samples
- %REC: Percent recovery.
- RPD: Relative percent difference.

Certificate of Analysis

Report Date: 10-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 5-Jan-2024

Client PO:

Project Description: 38369-200 - Highview PS Boiler Room DSA

### Sample Results

Lead					Matrix: Paint	
Parcel ID	Client ID	Sample Date	Units	MDL	Result	
2401191-01	LP01 - White - Walls	4-Jan-24	ug/g	5	116	
2401191-02	LP02 - Grey - Floors	4-Jan-24	ug/g	5	3530	
2401191-03	LP03 - Yellow - Gas Lines	4-Jan-24	ug/g	5	101000	

### Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Matrix Blank</b>									
Lead	ND	5	ug/g						
<b>Matrix Duplicate</b>									
Lead	224	5	ug/g	183			20.50	50	
<b>Matrix Spike</b>									
Lead	59.1	5.00	ug/g	7.3	104	70-130			



TRUSTED.  
RESPONSIVE.  
RELIABLE.

Paracel ID: 2401191



n Of Custody  
Lab Use Only)

Client Name: MTE Consultants		Project Ref: 38369-200 - Highview PS Boiler Room DSA		Page <u>1</u> of <u>1</u>	
Contact Name: Gavin Oakes; Aaron Rows		Quote #: MTE Standing Offer		Turnaround Time	
Address: 1016 Sutton Drive, Unit A Burlington, ON L7L 6B8		PO #:		<input type="checkbox"/> 1 day <input type="checkbox"/> 3 day <input type="checkbox"/> 2 day <input checked="" type="checkbox"/> Regular	
Telephone: 905-639-2552		E-mail: goakes@mte85.com arows@mte85.com		Date Required: _____	

REG 153/04 <input type="checkbox"/> REG 406/19 <input type="checkbox"/>		Other Regulation		Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)			Required Analysis														
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Med/Fine	<input type="checkbox"/> REG 558	<input type="checkbox"/> PWQO	Matrix	Air Volume	# of Containers	Sample Taken		Lead											
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> CCME	<input type="checkbox"/> MISA				Date	Time												
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other		<input type="checkbox"/> SU - Sani	<input type="checkbox"/> SU - Storm																	
<input type="checkbox"/> Table _____	For RSC: <input type="checkbox"/> Yes <input type="checkbox"/> No		Mun: _____																		
Sample ID/Location Name																					
1	LP01 - White - Walls				P	+	1	4 Jan 23	9:00am	X											
2	LP02 - Green - Floors				P	-	1	↓	9:10am	X											
3	LP03 - Yellow - gas lines				P	-	1	↓	9:15am	X											
4																					
5																					
6																					
7																					
8																					
9																					
10																					

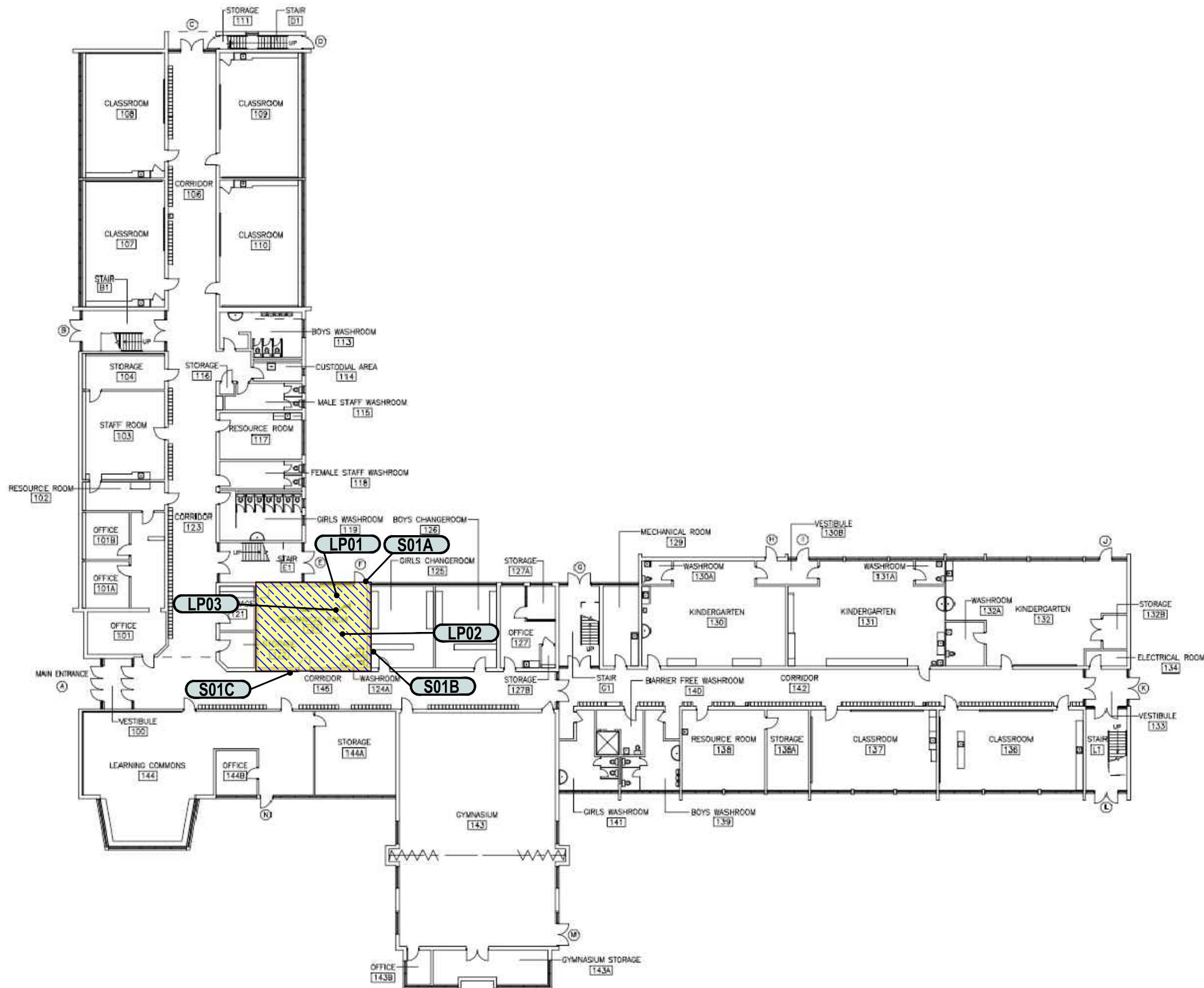
Comments:			Method of Delivery: <u>Pumpout</u>		
Relinquished By (Sign): <u>Gina Row</u>	Received By Driver/Depot:	Received at Lab: <u>[Signature]</u>	Verified By: <u>C-Phy</u>		
Relinquished By (Print): <u>Aaron Rows</u>	Date/Time:	Date/Time: <u>Jan 5/24-12:35</u>	Date/Time: <u>01/05/24 12:40</u>		
Date/Time: <u>4 Jan 24 1:30 pm</u>	Temperature: _____ °C	Temperature: _____	pH Verified: <input type="checkbox"/>	By: _____	



# Appendix C

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## Figures



**Notes:**  
 ALL DRAWINGS TO BE REFERENCED WITH THE DSA REPORT. LOCATIONS AND QUANTITIES ARE APPROXIMATE.  
 ALL KNOWN OR SUSPECT DESIGNATED SUBSTANCES ARE NOT DEPICTED ON THIS FIGURE. REFER TO THE DSA REPORT FOR A COMPLETE LIST OF IDENTIFIED KNOWN AND SUSPECT DESIGNATED SUBSTANCES.  
 THIS FIGURE IS COLOUR DEPENDENT. PHOTOCOPIES MAY ALTER INTERPRETATION OF FIGURE. ALWAYS REFER TO ORIGINAL DRAWINGS AND DSA REPORT.

**Designated Substances and Hazardous Materials Legend**

- LP01 Sample Identification
- ACM Transite Ceiling Panels



Ph. (905) 639-2552 www.mte85.com

CLIENT  
 Hamilton-Wenworth School Board

PROJECT  
 DESIGNATED SUBSTANCE AUDIT

DRAWING  
 1040 QUEENSDALE AVENUE EAST  
 HAMILTON, ONTARIO

Project Manager	G. OAKES	Date	JANUARY 2024
Baseplan By	MTE	Project No.	38369-200
Figure By	SXS	Drawing No.	1.0
Scale	N.T.S.		

# Appendix D

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## Photographic Log





**Photograph No. 1 – Asbestos-containing cement (Transite) ceiling panels are present within the boiler room.**



**Photograph No. 2 – Pipe straights and elbows consist of PVC over fiberglass and are not suspected of containing asbestos.**



Photograph No. 3 – Suspect lead-containing solder on copper pipe connections was observed within the boiler room.

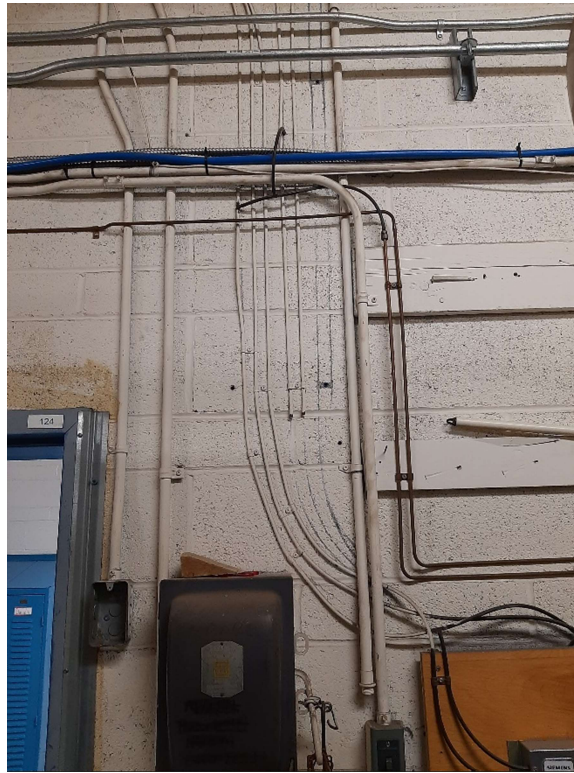


Photograph No. 4 – Yellow paint on the gas lines was sampled (LP03) and is lead-based.





**Photograph No. 5 – The grey paint on the floor of the boiler room was sampled (LP02) and is lead-containing.**



**Photograph No. 6 – The white paint on the walls of the boiler room was sampled (LP01) and is low level lead-containing. Several holes were present within the block walls of the boiler room and no evidence of vermiculite was observed.**