Nelson Secondary School Mechanical Upgrades

Designated Substance Audit Report

Project Location:
4181 New Street, Burlington, ON

Prepared for:
Halton District School Board
2050 Guelph Line, Burlington, ON

Prepared by:
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MTE File No.: 43920-102

Engineers, Scientists, Surveyors.

Contents

Appendices

1.0 INTRODUCTION

1.1 Authorization

MTE Consultants Inc. (MTE) was retained by Halton District School Board (the Client) to conduct a Designated Substance Audit for the building located at 4181 New Street in Burlington, 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 a renovation. 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 following areas:

- The primary and secondary boiler rooms;
- The roofing assembly;
- Music/drama rooms 242 and 244;
- Second floor mechanical rooms;
- Classroom 101 to 134, and 201 to 204; and
- Above corridors 1C3, 1C4, 2C3, 2C2, and 2C1.

These areas are referred to in the following sections as the “Subject Areas”.

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 buildings;
- 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.
- 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:

- Locations where at risk patients, materials or equipment may be compromised by dust generating work;
- 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 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 3, 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
Exterior Finishes	Flat roof system
Building Structure	Structural steel Concrete Concrete block
Mechanical Systems/Insulations	Boiler heating Roof mounted central air conditioning
	Parging on pipe fittings Tank insulation Duct wrap Fibreglass insulation on pipe straights, foil wrapped elbows Fibreglass duct insulation
Electrical/Plumbing Systems	Fluorescent Light tubes Copper piping with solder

Building Element	Description
Floor Finishes	Vinyl sheet flooring with paper backing Vinyl floor tiles Concrete Ceramic tile & grout Terrazzo
Wall Finishes	Concrete Plaster 1'x1' Acoustic wall panels
Ceiling Finishes	2' x 2'/4' Medium Fissure Random Pinhole ceiling tiles 2' x 2'/4' Small Fissure Random Pinhole ceiling tiles

As part of this assignment, MTE reviewed the following reports:

- "43920-101 – Nelson Secondary School Phase 2 Renovations Designated Substance Audit Report" which was prepared by MTE and dated August 23, 2019;
- "43920-101 - Nelson Secondary School Phase 1 Renovations Designated Audit Report" which was prepared by MTE and dated June 7, 2019;
- "Above-Ceiling Inspection for Asbestos-Containing Materials" which was prepared by MTE and dated 2019;
- "43920-100 – Nelson Highschool Designated Substance Audit Report" which was prepared by MTE and dated September 25, 2018; and,
- "Updated Survey of Asbestos-Containing Materials" which was prepared by Arcadis and dated April 17, 2017.

Review of these reports indicated the following asbestos-containing materials have been confirmed or suspected present within the Subject Areas:

Item	Material Description	Location
Confirmed ACM	Pipe Elbows (Chrysotile)	Above Drop Ceiling – Corridor 1C3
Non-ACM	Roofing Material	Roof Sections: 501 and 102
Non-ACM	Plaster	Within the 1956 Additions
Non-ACM	Ceiling Tiles	Throughout the Subject Areas

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 130 bulk samples of suspect ACM were submitted for asbestos analysis with a total of 106 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 7 paint scrape samples were collected from surfaces and represent the paint colours observed throughout the Subject Areas.

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, no lead-containing materials were confirmed present at the time of the inspection; however, suspect lead-containing solder on copper pipe connections or lead pipe gaskets were observed.

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

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 handing 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.

4.2.7 Ozone Depleting Substances (ODS)

No building components presumed to contain ODS were identified and no special requirements for management, handing 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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Appendix A

Tables

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE				
Sample #	**Location**	**Material Description**	**Asbestos Results (% Type)**	**Is Material ACM**
S01A	**ROOF SECTION102**	**LARGE PIPE INSULATION**	**90% AMOSITE**	**YES**
S01B	**ROOF SECTION102**	**LARGE PIPE INSULATION**	**NA**	**YES**
S01C	**ROOF SECTION102**	**LARGE PIPE INSULATION**	**NA**	**YES**
S02A	ROOF SECTION102	STEAM PIPE SEALANT	ND	NO
S02B	ROOF SECTION102	STEAM PIPE SEALANT	ND	NO
S02C	ROOF SECTION102	STEAM PIPE SEALANT	ND	NO
S03A	**SECONDARY BOILER ROOM**	**PIPE ELBOWS**	**60% CHRYSOTILE**	**YES**
S03B	**SECONDARY BOILER ROOM**	**PIPE ELBOWS**	**NA**	**YES**
S03C	**SECONDARY BOILER ROOM**	**PIPE ELBOWS**	**NA**	**YES**
S04A	SECONDARY BOILER ROOM	CONCRETE BLOCK MORTAR	ND	NO
S04B	SECONDARY BOILER ROOM	CONCRETE BLOCK MORTAR	ND	NO
S04C	SECONDARY BOILER ROOM	CONCRETE BLOCK MORTAR	ND	NO
S05A	SECONDARY BOILER ROOM	WHITE PLASTER	ND	NO
		GREY PLASTER	ND	NO
S05B	SECONDARY BOILER ROOM	WHITE PLASTER	ND	NO
		GREY PLASTER	ND	NO
S05C	SECONDARY BOILER ROOM	WHITE PLASTER	ND	NO
		GREY PLASTER	ND	NO
S06A	**PRIMARY BOILER ROOM**	**PIPE ELBOWS**	**60% CHRYSOTILE**	**YES**
S06B	**PRIMARY BOILER ROOM**	**PIPE ELBOWS**	**NA**	**YES**
S06C	**PRIMARY BOILER ROOM**	**PIPE ELBOWS**	**NA**	**YES**
S07A	**PRIMARY BOILER ROOM**	**INSULATION ON GREEN HEAT EXCHANGER**	**60% CHRYSOTILE**	**YES**
S07B	**PRIMARY BOILER ROOM**	**INSULATION ON GREEN HEAT EXCHANGER**	**NA**	**YES**
S07C	**PRIMARY BOILER ROOM**	**INSULATION ON GREEN HEAT EXCHANGER**	**NA**	**YES**
S08A	CLASSROOM 101	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN STREAK	ND	NO
		MASTIC	ND	NO
S08B	CLASSROOM 101	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN STREAK	ND	NO
		MASTIC	ND	NO
S08C	CLASSROOM 101	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN STREAK	ND	NO
		MASTIC	ND	NO
S09A	CLASSROOMS 108,104, 106,112,119,125,127, 214, 218	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN SPECK	ND	NO
		MASTIC	ND	NO
S09B	CLASSROOMS 108,104, 106,112,119,125,127, 214, 218	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN SPECK	ND	NO
		MASTIC	ND	NO
S09C	CLASSROOMS 108,104, 106,112,119,125,127, 214, 218	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN SPECK	ND	NO
		MASTIC	ND	NO
S10A	CLASSROOM 108	INTERIOR SEALANT	ND	NO
S10B	CLASSROOM 108	INTERIOR SEALANT	ND	NO
S10C	CLASSROOM 108	INTERIOR SEALANT	ND	NO
S11A	THROUGHOUT INTERIOR	2'x4' CEILING TILE - MEDIUM FISSURE RANDOM PINHOLE	ND	NO

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE				
Sample #	**Location**	**Material Description**	**Asbestos Results (% Type)**	**Is Material ACM**
S11B	THROUGHOUT INTERIOR	2'x4' CEILING TILE - MEDIUM FISSURE RANDOM PINHOLE	ND	NO
S11C	THROUGHOUT INTERIOR	2'x4' CEILING TILE - MEDIUM FISSURE RANDOM PINHOLE	ND	NO
S12A	CLASSROOM 130	12"x12" VINYL FLOOR TILE - BEIGE WITH OATMEAL PATTERN	ND	NO
		MASTIC	ND	NO
S12B	CLASSROOM 130	12"x12" VINYL FLOOR TILE - BEIGE WITH OATMEAL PATTERN	ND	NO
		MASTIC	ND	NO
S12C	CLASSROOM 130	12"x12" VINYL FLOOR TILE - BEIGE WITH OATMEAL PATTERN	ND	NO
		MASTIC	ND	NO
S13A	CLASSROOMS 120, 228, 225	12"x12" VINYL FLOOR TILE - WHITE WITH BLACK STREAK	ND	NO
		MASTIC	ND	NO
S13B	CLASSROOMS 120, 228, 225	12"x12" VINYL FLOOR TILE - WHITE WITH BLACK STREAK	ND	NO
		MASTIC	ND	NO
S13C	CLASSROOMS 120, 228, 225	12"x12" VINYL FLOOR TILE - WHITE WITH BLACK STREAK	ND	NO
		MASTIC	< MDL	NO
S14A	SAMPLES NOT SUBMITTIED			
S14B				
S14C				
S15A	**CLASSROOM 126**	**PLASTER**	**1% TREMOLITE**	**YES**
S15B	**CLASSROOM 126**	**PLASTER**	**NA**	**YES**
S15C	**CLASSROOM 126**	**PLASTER**	**NA**	**YES**
S16A	**CLASSROOMS 119, 123, 122, 128, 203, 204, 205, 206, 210, 209, 211, 220, 222, 224, 227, 230**	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN SPECK	ND	NO
		MASTIC	**1% CHRYSOTILE**	**YES**
S16B	**CLASSROOMS 119, 123, 122, 128, 203, 204, 205, 206, 210, 209, 211, 220, 222, 224, 227, 230**	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN SPECK	ND	NO
		MASTIC	**NA**	**YES**
S16C	**CLASSROOMS 119, 123, 122, 128, 203, 204, 205, 206, 210, 209, 211, 220, 222, 224, 227, 230**	12"x12" VINYL FLOOR TILE - WHITE WITH BROWN SPECK	ND	NO
		MASTIC	**NA**	**YES**
S17A	**CLASSROOM 126**	12"x12" VINYL FLOOR TILE -WHITE WITH BLACK AND GREY SPECK	ND	NO
		MASTIC	**2% CHRYSOTILE**	**YES**
S17B	**CLASSROOM 126**	12"x12" VINYL FLOOR TILE -WHITE WITH BLACK AND GREY SPECK	ND	NO
		MASTIC	**NA**	**YES**
S17C	**CLASSROOM 126**	12"x12" VINYL FLOOR TILE -WHITE WITH BLACK AND GREY SPECK	ND	NO
		MASTIC	**NA**	**YES**
S18A	CLASSROOM 213	12"x12" VINYL FLOOR TILE - WHITE WITH WHITE AND BROWN STREAK	ND	NO
		MASTIC	ND	NO
S18B	CLASSROOM 213	12"x12" VINYL FLOOR TILE - WHITE WITH WHITE AND BROWN STREAK	ND	NO
		MASTIC	ND	NO
S18C	CLASSROOM 213	12"x12" VINYL FLOOR TILE - WHITE WITH WHITE AND BROWN STREAK	ND	NO
		MASTIC	ND	NO
S19A	CLASSROOM 215	12"x12" VINYL FLOOR TILE - MULTI RED PATTERN	ND	NO
S19B	CLASSROOM 215	12"x12" VINYL FLOOR TILE - MULTI RED PATTERN	ND	NO
S19C	CLASSROOM 215	12"x12"xVINYL FLOOR TILE - MULTI RED PATTERN	ND	NO
S20A	CLASSROOM 221	9"x9" VINYL FLOOR TILE - DARK GREEN WITH BLACK AND WHITE STREAK	ND	NO
S20B	CLASSROOM 221	9"x9" VINYL FLOOR TILE - DARK GREEN WITH BLACK AND WHITE STREAK	ND	NO
S20C	CLASSROOM 221	9"x9" VINYL FLOOR TILE - DARK GREEN WITH BLACK AND WHITE STREAK	ND	NO
S21A	CLASROOM 223	9"x9" VINYL FLOOR TILE - LIGHT GREEN WITH WHITE STREAK	ND	NO
S21B	CLASROOM 223	9"x9" VINYL FLOOR TILE - LIGHT GREEN WITH WHITE STREAK	ND	NO

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE				
Sample #	**Location**	**Material Description**	**Asbestos Results (% Type)**	**Is Material ACM**
S21C	CLASROOM 223	9"x9" VINYL FLOOR TILE - LIGHT GREEN WITH WHITE STREAK	ND	NO
S22A	**CLASSROOMS 230, 232, 234**	**9"x9" VINYL FLOOR TILE - WHITE WITH BROWN SPECK**	**1% CHRYSOTILE**	**YES**
		MASTIC	**2% CHRYSOTILE**	**YES**
S22B	**CLASSROOMS 230, 232, 234**	**9"x9" VINYL FLOOR TILE - WHITE WITH BROWN SPECK**	**NA**	**YES**
		MASTIC	**NA**	**YES**
S22C	**CLASSROOMS 230, 232, 234**	**9"x9" VINYL FLOOR TILE - WHITE WITH BROWN SPECK**	**NA**	**YES**
		MASTIC	**NA**	**YES**
S23A	**CLASSROOM 244**	VINYL SHEET FLOORING - BLUE	ND	NO
		MASTIC/BACKING	**0.5% CHRYSOTILE**	**YES**
S23B	**CLASSROOM 244**	VINYL SHEET FLOORING - BLUE	ND	NO
		MASTIC/BACKING	**NA**	**YES**
S23C	**CLASSROOM 244**	VINYL SHEET FLOORING - BLUE	ND	NO
		MASTIC/BACKING	**NA**	**YES**
S24A	2ND FLOOR MECHANICAL ROOM	DUCT WRAP	<MDL	NO
S24B	2ND FLOOR MECHANICAL ROOM	DUCT WRAP	<MDL	NO
S24C	2ND FLOOR MECHANICAL ROOM	DUCT WRAP	<MDL	NO
S25A	ROOF SECTION 108	MEMBRANE	ND	NO
S25B	ROOF SECTION 108	MEMBRANE	ND	NO
S25C	ROOF SECTION 108	MEMBRANE	ND	NO
S26A	ROOF SECTION 108	INTERMEDIATE LAYER	ND	NO
S26B	ROOF SECTION 108	INTERMEDIATE LAYER	<MDL	NO
S26C	ROOF SECTION 108	INTERMEDIATE LAYER	ND	NO
S27A	ROOF SECTION 108	VAPOUR BARRIER	ND	NO
S27B	ROOF SECTION 108	VAPOUR BARRIER	ND	NO
S27C	ROOF SECTION 108	VAPOUR BARRIER	ND	NO
S28A	ROOF SECTION 301	MEMBRANE	ND	NO
S28B	ROOF SECTION 301	MEMBRANE	ND	NO
S28C	ROOF SECTION 301	MEMBRANE	ND	NO
S29A	ROOF SECTION 301	INTERMEDIATE LAYER	ND	NO
S29B	ROOF SECTION 301	INTERMEDIATE LAYER	ND	NO
S29C	ROOF SECTION 301	INTERMEDIATE LAYER	ND	NO
S30A	ROOF SECTION 301	VAPOUR BARRIER	ND	NO
S30B	ROOF SECTION 301	VAPOUR BARRIER	ND	NO
S30C	ROOF SECTION 301	VAPOUR BARRIER	ND	NO
S31A	ROOF SECTION 403	MEMBRANE	ND	NO
S31B	ROOF SECTION 403	MEMBRANE	ND	NO
S31C	ROOF SECTION 403	MEMBRANE	ND	NO
S32A	ROOF SECTION 403	INTERMEDIATE LAYER	ND	NO
S32B	ROOF SECTION 403	INTERMEDIATE LAYER	ND	NO
S32C	ROOF SECTION 403	INTERMEDIATE LAYER	ND	NO

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE				
Sample #	**Location**	**Material Description**	**Asbestos Results (% Type)**	**Is Material ACM**
S33A	ROOF SECTION 403	VAPOUR BARRIER	ND	NO
S33B	ROOF SECTION 403	VAPOUR BARRIER	< MDL	NO
S33C	ROOF SECTION 403	VAPOUR BARRIER	< MDL	NO
S34A	ROOF SECTION 404	MEMBRANE	ND	NO
S34B	ROOF SECTION 404	MEMBRANE	ND	NO
S34C	ROOF SECTION 404	MEMBRANE	ND	NO
S35A	ROOF SECTION 404	INTERMEDIATE LAYER	ND	NO
S35B	ROOF SECTION 404	INTERMEDIATE LAYER	ND	NO
S35C	ROOF SECTION 404	INTERMEDIATE LAYER	ND	NO
S36A	ROOF SECTION 404	VAPOUR BARRIER	ND	NO
S36B	ROOF SECTION 404	VAPOUR BARRIER	ND	NO
S36C	ROOF SECTION 404	VAPOUR BARRIER	ND	NO
S37A	ROOF SECTION 401	MEMBRANE	ND	NO
S37B	ROOF SECTION 401	MEMBRANE	ND	NO
S37C	ROOF SECTION 401	MEMBRANE	ND	NO
S38A	ROOF SECTION 401	VAPOUR BARRIER	ND	NO
S38B	ROOF SECTION 401	VAPOUR BARRIER	ND	NO
S38C	ROOF SECTION 401	VAPOUR BARRIER	ND	NO
S39A	**CLASSROOMS 114, 118**	**9"x9" VINYL FLOOR TILE - GREEN WITH BLACK AND WHITE STREAK**	**3% CHRYSOTILE**	**YES**
		MASTIC	ND	NO
S39B	**CLASSROOMS 114, 118**	**9"x9" VINYL FLOOR TILE - GREEN WITH BLACK AND WHITE STREAK**	**NA**	**YES**
		MASTIC	ND	NO
S39C	**CLASSROOMS 114, 118**	**9"x9" VINYL FLOOR TILE - GREEN WITH BLACK AND WHITE STREAK**	**NA**	**YES**
		MASTIC	ND	NO
S40A	**CLASSROOM 201**	**12"x12" - BROWN WITH WHITE STREAK**	**1% CHRYSOTILE**	**YES**
		MASTIC	ND	NO
S40B	**CLASSROOM 201**	**12"x12" - BROWN WITH WHITE STREAK**	**NA**	**YES**
		MASTIC	ND	NO
S40C	**CLASSROOM 201**	**12"x12" - BROWN WITH WHITE STREAK**	**NA**	**YES**
		MASTIC	ND	NO
S41A	CORRIDOR 2C4	2'x4' CEILING TILE - SMALL FISSURE RANDOM PINHOLE	ND	NO
S41B	CORRIDOR 2C4	2'x4' CEILING TILE - SMALL FISSURE RANDOM PINHOLE	ND	NO
S41C	CORRIDOR 2C4	2'x4' CEILING TILE - SMALL FISSURE RANDOM PINHOLE	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	SECONDARY BOILER ROOM	GREY	WALL	901	LOW LEVEL LEAD-CONTAINING
LP2	SECONDARY BOILER ROOM	GREY	FLOOR	548	LOW LEVEL LEAD-CONTAINING
LP3	PRIMARY BOILER ROOM	WHITE	WALL	782	LOW LEVEL LEAD-CONTAINING
LP4	CLASSROOMS	CREAM	WALL	43	LOW LEVEL LEAD-CONTAINING
LP5	CLASSROOMS	WHITE	WALL	150	LOW LEVEL LEAD-CONTAINING
LP6	CLASSROOMS	GREY	WALL	163	LOW LEVEL LEAD-CONTAINING
LP7	DRAMA/MUSIC ROOM	BLACK	WALL	22	LOW LEVEL LEAD-CONTAINING

"<": 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.

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:

- Greater than 0.5% by weight (5,000 µg/g, mg/kg, ppm) is considered lead-based;
- Between 0.1 % and 0.5% by weight (1,000 to 5,000 µg/g, mg/kg, ppm) is considered lead-containing; or
- Less than 0.1% (1,000 µg/g, mg/kg, ppm) is considered low level lead-containing.

Table 4.3 - Summary of Designated Substances and Recommended Actions

4181 New Street, Burlington, Ontario

Material	Location(s)	Material Description	Management Requirements If No Impacts to Material	Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities
Asbestos Friable	Primary Boiler Room	Insulation on Pipe Fittings	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < $1m^2$ as a Type 2 or Type 2 Glove Bag Operation and for > $1m^2$ as a Type 2 Glove Bag or Type 3 Operation
Asbestos Friable	Secondary Boiler Room	Insulation on Pipe Fittings	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < $1m^2$ as a Type 2 or Type 2 Glove Bag Operation and for > $1m^2$ as a Type 2 Glove Bag or Type 3 Operation
Asbestos Friable	Above drop ceiling -Corridor 1C3	Insulation on Pipe Fittings	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < $1m^2$ as a Type 2 or Type 2 Glove Bag Operation and for > $1m^2$ as a Type 2 Glove Bag or Type 3 Operation
Asbestos Friable	Roof Section 102	Insulation on Piping	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < $1m^2$ as a Type 2 or Type 2 Glove Bag Operation and for > $1m^2$ as a Type 2 Glove Bag or Type 3 Operation
Asbestos Non-Friable	Classroom 244	Blue Vinyl Sheet Flooring mastic/backing	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
Asbestos Non-Friable	Classrooms 230, 232, 234	9"x9" White with Brown speck pattern Floor Tile & Associated Mastic	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
Asbestos Non-Friable	Classrooms 114, 118	9"x9" Green with black and white streak pattern Floor Tile	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
	Classroom 201	12"x12" Brown with White streak pattern Floor Tile		

Table 4.3 - Summary of Designated Substances and Recommended Actions				
4181 New Street, Burlington, Ontario				
Material	**Location(s)**	**Material Description**	**Management Requirements If No Impacts to Material**	**Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities**
Asbestos Non-Friable	Classrooms 119, 123, 122, 128, 203, 204, 205, 206, 210, 209, 211, 220, 222, 224, 227, 229	12"x12" White with Brown Speck pattern Floor Tile Mastic	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
	Classroom 126	12"x12" White with Black and Grey Speck pattern Floor Tile Mastic		
Asbestos Non-Friable	1963 Building Addition	Plaster	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 Type 2 Operation – hand held tools only with dust suppression or power tools with HEPA vacuum attachment in conjunction with dust suppression OR Type 3 Operation – power tools with no dust suppression
Suspect Asbestos Friable	Above drop ceiling -Corridor 1C3	Air Cell Insulation on Piping	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < $1m^2$ as a Type 2 or Type 2 Glove Bag Operation and for > $1m^2$ as a Type 2 Glove Bag or Type 3 Operation
Potentially Concealed Asbestos	Primary Boiler Room	Door Core Insulation	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Underground Piping Systems	Asbestos Cement (Transite) Pipe	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Throughout Interior Classrooms	1'x1' Accoustic Panel Mastic	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Throughout Interior Classrooms	White Board Mastic	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05

Table 4.3 - Summary of Designated Substances and Recommended Actions				
4181 New Street, Burlington, Ontario				
Material	**Location(s)**	**Material Description**	**Management Requirements If No Impacts to Material**	**Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities**
Low Level Lead-Containing Paint	Secondary Boiler Room	Grey Paint on Walls	None	General hygiene procedures during renovation activities: • General dust control, • Washing of hands and face at on-site facilities, • No smoking, eating, chewing gum or drinking in the work area, • No abrasive blasting.
	Secondary Boiler Room	Grey Paint on Floor		
	Primary boiler Room	White Paint on Walls		
	Throughout Interior	Cream Paint on Walls		
	Throughout Interior	White Paint on Walls		
	Throughout Interior	Grey Paint on Walls		
	2nd Floor Dramma/Musuc Room	Black Paint on Walls		
Suspect Lead	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
Potentially Concealed Lead	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
Mercury	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
Silica	Throughout Interior and Exterior of Building	Concrete, Terrazzo	None	Conduct any work during renovation, demolition activities in accordance with the Ministry of Labour Guideline Silica on Construction Projects
Potentailyl Concealed PCBs	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

Table 4.3 - Summary of Designated Substances and Recommended Actions				
4181 New Street, Burlington, Ontario				
Material	**Location(s)**	**Material Description**	**Management Requirements If No Impacts to Material**	**Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities**

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

Laboratory Certificates of Analysis

PARACEL LABORATORIES LTD.

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15 - 6800 Kitimat Rd
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1-800-749-1947
www.paracellabs.com

Certificate of Analysis

MTE Consultants Inc. (Burlington)

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

Client PO:
Project: 43920-102 - Nelson HS Mechanical Upgrades DSA
Custody:

Report Date: 16-Jan-2024
Order Date: 10-Jan-2024

Order #: 2402185

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

Paracel ID	Client ID
2402185-01	S01A - Large Steam Pipe Insulation
2402185-02	S01B - Large Steam Pipe Insulation
2402185-03	S01C - Large Steam Pipe Insulation
2402185-04	S02A - Steam Pipe Sealant
2402185-05	S02B - Steam Pipe Sealant
2402185-06	S02C - Steam Pipe Sealant
2402185-07	S03A - Pipe Elbows Secondary Mech Room
2402185-08	S03B - Pipe Elbows Secondary Mech Room
2402185-09	S03C - Pipe Elbows Secondary Mech Room
2402185-10	S04A - Block Wall Mortar
2402185-11	S04B - Block Wall Mortar
2402185-12	S04C - Block Wall Mortar
2402185-13.1	S05A - Plaster Secondary Mech Room
2402185-13.2	S05A - Plaster Secondary Mech Room
2402185-14.1	S05B - Plaster Secondary Mech Room
2402185-14.2	S05B - Plaster Secondary Mech Room
2402185-15.1	S05C - Plaster Secondary Mech Room
2402185-15.2	S05C - Plaster Secondary Mech Room
2402185-16	S06A - Pipe Elbows Primary Boiler Room
2402185-17	S06B - Pipe Elbows Primary Boiler Room
2402185-18	S06C - Pipe Elbows Primary Boiler Room
2402185-19	S07A - Insulation Green Heat Exchanger Primary Boiler Room
2402185-20	S07B - Insulation Green Heat Exchanger Primary Boiler Room
2402185-21	S07C - Insulation Green Heat Exchanger Primary Boiler Room
2402185-22.1	S08A - VFT - 12x12 White with Brown Streak
2402185-22.2	S08A - VFT - 12x12 White with Brown Streak

Approved By:

Heather S.H. McGregor, BSc

Laboratory Director - Microbiology

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

2402185-23.1	S08B - VFT - 12x12 White with Brown Streak
2402185-23.2	S08B - VFT - 12x12 White with Brown Streak
2402185-24.1	S08C - VFT - 12x12 White with Brown Streak
2402185-24.2	S08C - VFT - 12x12 White with Brown Streak
2402185-25.1	S09A - VFT - 12x12 White with Brown Speck
2402185-25.2	S09A - VFT - 12x12 White with Brown Speck
2402185-25.3	S09A - VFT - 12x12 White with Brown Speck
2402185-26.1	S09B - VFT - 12x12 White with Brown Speck
2402185-26.2	S09B - VFT - 12x12 White with Brown Speck
2402185-26.3	S09B - VFT - 12x12 White with Brown Speck
2402185-27.1	S09C - VFT - 12x12 White with Brown Speck
2402185-27.2	S09C - VFT - 12x12 White with Brown Speck
2402185-27.3	S09C - VFT - 12x12 White with Brown Speck
2402185-28	S10A - Sealant Above Rads
2402185-29	S10B - Sealant Above Rads
2402185-30	S10C - Sealant Above Rads
2402185-31	S11A - CT - 2x4 Medium Fissure Random Pin
2402185-32	S11B - CT - 2x4 Medium Fissure Random Pin
2402185-33	S11C - CT - 2x4 Medium Fissure Random Pin
2402185-34.1	S12A - VFT - 12x12 Beige w/ Oatmeal Pattern
2402185-34.2	S12A - VFT - 12x12 Beige w/ Oatmeal Pattern
2402185-35.1	S12B - VFT - 12x12 Beige w/ Oatmeal Pattern
2402185-35.2	S12B - VFT - 12x12 Beige w/ Oatmeal Pattern
2402185-36.1	S12C - VFT - 12x12 Beige w/ Oatmeal Pattern
2402185-36.2	S12C - VFT - 12x12 Beige w/ Oatmeal Pattern
2402185-37.1	S13A - VFT - 12x12 White with Black Streak
2402185-37.2	S13A - VFT - 12x12 White with Black Streak
2402185-38.1	S13B - VFT - 12x12 White with Black Streak
2402185-38.2	S13B - VFT - 12x12 White with Black Streak
2402185-39.1	S13C - VFT - 12x12 White with Black Streak
2402185-39.2	S13C - VFT - 12x12 White with Black Streak
2402185-43	S15A - Plaster - Room 126
2402185-44	S15B - Plaster - Room 126
2402185-45	S15C - Plaster - Room 126
2402185-46.1	S16A - VFT - 12x12 - White with Brown Speck
2402185-46.2	S16A - VFT - 12x12 - White with Brown Speck
2402185-47.1	S16B - VFT - 12x12 - White with Brown Speck
2402185-47.2	S16B - VFT - 12x12 - White with Brown Speck
2402185-48.1	S16C - VFT - 12x12 - White with Brown Speck
2402185-48.2	S16C - VFT - 12x12 - White with Brown Speck
2402185-49.1	S17A - VFT - 12x12 - White with Black and Grey Speck
2402185-49.2	S17A - VFT - 12x12 - White with Black and Grey Speck
2402185-50.1	S17B - VFT - 12x12 - White with Black and Grey Speck
2402185-50.2	S17B - VFT - 12x12 - White with Black and Grey Speck

2402185-51.1	S17C - VFT - 12x12 - White with Black and Grey Speck
2402185-51.2	S17C - VFT - 12x12 - White with Black and Grey Speck
2402185-52.1	S18A - VFT - 12x12 - White with White and Brown Streak
2402185-52.2	S18A - VFT - 12x12 - White with White and Brown Streak
2402185-53.1	S18B - VFT - 12x12 - White with White and Brown Streak
2402185-53.2	S18B - VFT - 12x12 - White with White and Brown Streak
2402185-54.1	S18C - VFT - 12x12 - White with White and Brown Streak
2402185-54.2	S18C - VFT - 12x12 - White with White and Brown Streak
2402185-55	S19A - VFT - 12x12 - Multi Red Pattern
2402185-56	S19B - VFT - 12x12 - Multi Red Pattern
2402185-57	S19C - VFT - 12x12 - Multi Red Pattern
2402185-58	S20A - VFT - 9x9 - Dark Green with Black and White Streak
2402185-59	S20B - VFT - 9x9 - Dark Green with Black and White Streak
2402185-60	S20C - VFT - 9x9 - Dark Green with Black and White Streak
2402185-61	S21A - VFT - 9x9 - Light Green with White Streak
2402185-62	S21B - VFT - 9x9 - Light Green with White Streak
2402185-63	S21C - VFT - 9x9 - Light Green with White Streak
2402185-64.1	S22A - VFT - 9x9 - White with Brown Speck
2402185-64.2	S22A - VFT - 9x9 - White with Brown Speck
2402185-65.1	S22B - VFT - 9x9 - White with Brown Speck
2402185-65.2	S22B - VFT - 9x9 - White with Brown Speck
2402185-66.1	S22C - VFT - 9x9 - White with Brown Speck
2402185-66.2	S22C - VFT - 9x9 - White with Brown Speck
2402185-67.1	S23A - VSF - Blue - Music/Drama Room
2402185-67.2	S23A - VSF - Blue - Music/Drama Room
2402185-68.1	S23B - VSF - Blue - Music/Drama Room
2402185-68.2	S23B - VSF - Blue - Music/Drama Room
2402185-69.1	S23C - VSF - Blue - Music/Drama Room
2402185-69.2	S23C - VSF - Blue - Music/Drama Room
2402185-70	S24A - Duct Wrap Mech Room
2402185-71	S24B - Duct Wrap Mech Room
2402185-72	S24C - Duct Wrap Mech Room
2402185-73	S25A - Cut 1 - Membrane
2402185-74	S25B - Cut 1 - Membrane
2402185-75	S25C - Cut 1 - Membrane
2402185-76	S26A - Cut 1 - Intermediate Layer
2402185-77	S26B - Cut 1 - Intermediate Layer
2402185-78	S26C - Cut 1 - Intermediate Layer
2402185-79	S27A - Cut 1 - Vapour Barrier
2402185-80	S27B - Cut 1 - Vapour Barrier
2402185-81	S27C - Cut 1 - Vapour Barrier
2402185-82	S28A - Cut 4 - Membrane
2402185-83	S28B - Cut 4 - Membrane
2402185-84	S28C - Cut 4 - Membrane

2402185-85	S29A - Cut 4 - Intermediate Layer
2402185-86	S29B - Cut 4 - Intermediate Layer
2402185-87	S29C - Cut 4 - Intermediate Layer
2402185-88	S30A - Cut 4 - Vapour Barrier
2402185-89	S30B - Cut 4 - Vapour Barrier
2402185-90	S30C - Cut 4 - Vapour Barrier
2402185-91	S31A - Cut 5 - Membrane
2402185-92	S31B - Cut 5 - Membrane
2402185-93	S31C - Cut 5 - Membrane
2402185-94	S32A - Cut 5 - Intermediate Layer
2402185-95	S32B - Cut 5 - Intermediate Layer
2402185-96	S32C - Cut 5 - Intermediate Layer
2402185-97	S33A - Cut 5 - Vapour Barrier
2402185-98	S33B - Cut 5 - Vapour Barrier
2402185-99	S33C - Cut 5 - Vapour Barrier
2402185-AA	S34A - Cut 6 - Membrane
2402185-AB	S34B - Cut 6 - Membrane
2402185-AC	S34C - Cut 6 - Membrane
2402185-AD	S35A - Cut 6 - Intermediate Layer
2402185-AE	S35B - Cut 6 - Intermediate Layer
2402185-AF	S35C - Cut 6 - Intermediate Layer
2402185-AG	S36A - Cut 6 - Vapour Barrier
2402185-AH	S36B - Cut 6 - Vapour Barrier
2402185-AI	S36C - Cut 6 - Vapour Barrier
2402185-AJ	S37A - Membrane
2402185-AK	S37B - Membrane
2402185-AL	S37C - Membrane
2402185-AM	S38A - Vapour Barrier
2402185-AN	S38B - Vapour Barrier
2402185-AO	S38C - Vapour Barrier
2402185-AP.1	S39A - 9x9 Green with Black and White Streak
2402185-AP.2	S39A - 9x9 Green with Black and White Streak
2402185-AQ.1	S39B - 9x9 Green with Black and White Streak
2402185-AQ.2	S39B - 9x9 Green with Black and White Streak
2402185-AR.1	S39C - 9x9 Green with Black and White Streak
2402185-AR.2	S39C - 9x9 Green with Black and White Streak
2402185-AS.1	S40A - 12x12 Brown with White Streak
2402185-AS.2	S40A - 12x12 Brown with White Streak
2402185-AT.1	S40B - 12x12 Brown with White Streak
2402185-AT.2	S40B - 12x12 Brown with White Streak
2402185-AU.1	S40C - 12x12 Brown with White Streak
2402185-AU.2	S40C - 12x12 Brown with White Streak
2402185-AV	S41A - 2x4 CT - Small Fissure Random Pinhole
2402185-AW	S41B - 2x4 CT - Small Fissure Random Pinhole

2402185-AX S41C - 2x4 CT - Small Fissure Random Pinhole

Certificate of Analysis

Report Date: 16-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mechanical Upgrades DSA

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-01	03-Jan-24	Grey	Insulation	**Yes**	**Client ID: S01A - Large Steam Pipe Insulation**	
					Amosite	90
					Non-Fibers	10
2402185-02	03-Jan-24	Grey	Insulation		**Client ID: S01B - Large Steam Pipe Insulation**	
					not analyzed, positive stop	
2402185-03	03-Jan-24	Grey	Insulation		**Client ID: S01C - Large Steam Pipe Insulation**	
					not analyzed, positive stop	
2402185-04	03-Jan-24	Grey	Sealant	No	**Client ID: S02A - Steam Pipe Sealant**	
					Non-Fibers	100
2402185-05	03-Jan-24	Grey	Sealant	No	**Client ID: S02B - Steam Pipe Sealant**	
					Non-Fibers	100
2402185-06	03-Jan-24	Grey	Sealant	No	**Client ID: S02C - Steam Pipe Sealant**	
					Non-Fibers	100
2402185-07	03-Jan-24	Grey	Pipe Elbow	**Yes**	**Client ID: S03A - Pipe Elbows Secondary Mech Room**	
					Chrysotile	60
					Non-Fibers	40
2402185-08	03-Jan-24	Grey	Pipe Elbow		**Client ID: S03B - Pipe Elbows Secondary Mech Room**	
					not analyzed, positive stop	
2402185-09	03-Jan-24	Grey	Pipe Elbow		**Client ID: S03C - Pipe Elbows Secondary Mech Room**	
					not analyzed, positive stop	
2402185-10	03-Jan-24	Grey	Mortar	No	**Client ID: S04A - Block Wall Mortar**	
					Non-Fibers	100
2402185-11	03-Jan-24	Grey	Mortar	No	**Client ID: S04B - Block Wall Mortar**	
					Non-Fibers	100

Certificate of Analysis

Report Date: 16-Jan-2024

Client: **MTE Consultants Inc. (Burlington)**

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mechanical Upgrades DSA

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-12	03-Jan-24	Grey	Mortar	No	**Client ID: S04C - Block Wall Mortar**	
					Non-Fibers	100
2402185-13.1	03-Jan-24	White	Plaster	No	**Client ID: S05A - Plaster Secondary Mech Room**	
					Non-Fibers	100
2402185-13.2	03-Jan-24	Grey	Plaster	No	**Client ID: S05A - Plaster Secondary Mech Room**	
					Non-Fibers	100
2402185-14.1	03-Jan-24	White	Plaster	No	**Client ID: S05B - Plaster Secondary Mech Room**	
					Non-Fibers	100
2402185-14.2	03-Jan-24	Grey	Plaster	No	**Client ID: S05B - Plaster Secondary Mech Room**	
					Non-Fibers	100
2402185-15.1	03-Jan-24	White	Plaster	No	**Client ID: S05C - Plaster Secondary Mech Room**	
					Non-Fibers	100
2402185-15.2	03-Jan-24	Grey	Plaster	No	**Client ID: S05C - Plaster Secondary Mech Room**	
					Non-Fibers	100
2402185-16	03-Jan-24	Grey	Pipe Elbow	**Yes**	**Client ID: S06A - Pipe Elbows Primary Boiler Room**	
					Chrysotile	60
					Non-Fibers	40
2402185-17	03-Jan-24	Grey	Pipe Elbow		**Client ID: S06B - Pipe Elbows Primary Boiler Room**	
					not analyzed, positive stop	
2402185-18	03-Jan-24	Grey	Pipe Elbow		**Client ID: S06C - Pipe Elbows Primary Boiler Room**	
					not analyzed, positive stop	
2402185-19	03-Jan-24	Grey	Insulation	**Yes**	**Client ID: S07A - Insulation Green Heat Exchanger Primary Boiler Room**	
					Chrysotile	60
					Non-Fibers	40

Certificate of Analysis

Report Date: 16-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mechanical Upgrades DSA

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-20	03-Jan-24	Grey	Insulation		**Client ID: S07B - Insulation Green Heat Exchanger Primary Boiler Room**	
					not analyzed, positive stop	
2402185-21	03-Jan-24	Grey	Insulation		**Client ID: S07C - Insulation Green Heat Exchanger Primary Boiler Room**	
					not analyzed, positive stop	
2402185-22.1	03-Jan-24	White	Vinyl Floor Tile	No	**Client ID: S08A - VFT - 12x12 White with Brown Streak**	
					Non-Fibers	100
2402185-22.2	03-Jan-24	Black	Mastic	No	**Client ID: S08A - VFT - 12x12 White with Brown Streak**	
					Non-Fibers	100
2402185-23.1	03-Jan-24	White	Vinyl Floor Tile	No	**Client ID: S08B - VFT - 12x12 White with Brown Streak**	
					Non-Fibers	100
2402185-23.2	03-Jan-24	Black	Mastic	No	**Client ID: S08B - VFT - 12x12 White with Brown Streak**	
					Non-Fibers	100
2402185-24.1	03-Jan-24	White	Vinyl Floor Tile	No	**Client ID: S08C - VFT - 12x12 White with Brown Streak**	
					Non-Fibers	100
2402185-24.2	03-Jan-24	Black	Mastic	No	**Client ID: S08C - VFT - 12x12 White with Brown Streak**	
					Non-Fibers	100
2402185-25.1	03-Jan-24	White	Vinyl Floor Tile	No	**Client ID: S09A - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-25.2	03-Jan-24	Black	Mastic	No	**Client ID: S09A - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-25.3	03-Jan-24	Grey	Leveling Compound	No	**Client ID: S09A - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-26.1	03-Jan-24	White	Vinyl Floor Tile	No	**Client ID: S09B - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-26.2	03-Jan-24	Black	Mastic	No	**Client ID: S09B - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-26.3	03-Jan-24	Grey	Leveling Compound	No	**Client ID: S09B - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-27.1	03-Jan-24	White	Vinyl Floor Tile	No	**Client ID: S09C - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-27.2	03-Jan-24	Black	Mastic	No	**Client ID: S09C - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-27.3	03-Jan-24	Grey	Leveling Compound	No	**Client ID: S09C - VFT - 12x12 White with Brown Speck**	
					Non-Fibers	100
2402185-28	03-Jan-24	Off-white	Sealant	No	**Client ID: S10A - Sealant Above Rads**	
					Non-Fibers	100
2402185-29	03-Jan-24	Off-white	Sealant	No	**Client ID: S10B - Sealant Above Rads**	
					Non-Fibers	100
2402185-30	03-Jan-24	Off-white	Sealant	No	**Client ID: S10C - Sealant Above Rads**	
					Non-Fibers	100
2402185-31	03-Jan-24	Grey	Ceiling Tile	No	**Client ID: S11A - CT - 2x4 Medium Fissure Random Pin**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
2402185-32	03-Jan-24	Grey	Ceiling Tile	No	**Client ID: S11B - CT - 2x4 Medium Fissure Random Pin**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-33	03-Jan-24	Grey	Ceiling Tile	No	**Client ID: S11C - CT - 2x4 Medium Fissure Random Pin**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
2402185-34.1	03-Jan-24	Beige	Vinyl Floor Tile	No	**Client ID: S12A - VFT - 12x12 Beige w/ Oatmeal Pattern**	
					Non-Fibers	100
2402185-34.2	03-Jan-24	Black	Mastic	No	**Client ID: S12A - VFT - 12x12 Beige w/ Oatmeal Pattern**	
					Non-Fibers	100
2402185-35.1	03-Jan-24	Beige	Vinyl Floor Tile	No	**Client ID: S12B - VFT - 12x12 Beige w/ Oatmeal Pattern**	
					Non-Fibers	100
2402185-35.2	03-Jan-24	Black	Mastic	No	**Client ID: S12B - VFT - 12x12 Beige w/ Oatmeal Pattern**	
					Non-Fibers	100
2402185-36.1	03-Jan-24	Beige	Vinyl Floor Tile	No	**Client ID: S12C - VFT - 12x12 Beige w/ Oatmeal Pattern**	
					Non-Fibers	100
2402185-36.2	03-Jan-24	Black	Mastic	No	**Client ID: S12C - VFT - 12x12 Beige w/ Oatmeal Pattern**	
					Non-Fibers	100
2402185-37.1	03-Jan-24	White/Black	VFT	No	**Client ID: S13A - VFT - 12x12 White with Black Streak**	
					Non-Fibers	100
2402185-37.2	03-Jan-24	Black	Mastic	No	**Client ID: S13A - VFT - 12x12 White with Black Streak**	
					Non-Fibers	100
2402185-38.1	03-Jan-24	White/Black	VFT	No	**Client ID: S13B - VFT - 12x12 White with Black Streak**	
					Non-Fibers	100
2402185-38.2	03-Jan-24	Black	Mastic	No	**Client ID: S13B - VFT - 12x12 White with Black Streak**	
					Non-Fibers	100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-39.1	03-Jan-24	White/Black	VFT	No	**Client ID: S13C - VFT - 12x12 White with Black Streak**	
					Non-Fibers	100
2402185-39.2	03-Jan-24	Black	Mastic	**Yes**	**Client ID: S13C - VFT - 12x12 White with Black Streak** [AS-PT]	
				[ASTrc]	**Chrysotile**	<MDL
					Non-Fibers	100
2402185-43	03-Jan-24	White	Plaster	**Yes**	**Client ID: S15A - Plaster - Room 126** [Z-01]	
					Tremolite	1
					Non-Fibers	99
2402185-44	03-Jan-24	White	Plaster		**Client ID: S15B - Plaster - Room 126** [Z-01]	
					not analyzed, positive stop	
2402185-45	03-Jan-24	White	Plaster		**Client ID: S15C - Plaster - Room 126** [Z-01]	
					not analyzed, positive stop	
2402185-46.1	03-Jan-24	White/Brown	VFT	No	**Client ID: S16A - VFT - 12x12 - White with Brown Speck**	
					Non-Fibers	100
2402185-46.2	03-Jan-24	Black	Mastic	**Yes**	**Client ID: S16A - VFT - 12x12 - White with Brown Speck**	
					Chrysotile	1
					Non-Fibers	99
2402185-47.1	03-Jan-24	White/Brown	VFT	No	**Client ID: S16B - VFT - 12x12 - White with Brown Speck**	
					Non-Fibers	100
2402185-47.2	03-Jan-24	Black	Mastic		**Client ID: S16B - VFT - 12x12 - White with Brown Speck**	
					not analyzed, positive stop	
2402185-48.1	03-Jan-24	White/Brown	VFT	No	**Client ID: S16C - VFT - 12x12 - White with Brown Speck**	
					Non-Fibers	100
2402185-48.2	03-Jan-24	Black	Mastic		**Client ID: S16C - VFT - 12x12 - White with Brown Speck**	
					not analyzed, positive stop	

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-49.1	03-Jan-24	White/Black/ Grey	VFT	No	**Client ID: S17A - VFT - 12x12 - White with Black and Grey Speck**	
					Non-Fibers	100
2402185-49.2	03-Jan-24	Black	Mastic	**Yes**	**Client ID: S17A - VFT - 12x12 - White with Black and Grey Speck**	
					Chrysotile	2
					Non-Fibers	98
2402185-50.1	03-Jan-24	White/Black/ Grey	VFT	No	**Client ID: S17B - VFT - 12x12 - White with Black and Grey Speck**	
					Non-Fibers	100
2402185-50.2	03-Jan-24	Black	Mastic		**Client ID: S17B - VFT - 12x12 - White with Black and Grey Speck**	
					not analyzed, positive stop	
2402185-51.1	03-Jan-24	White/Black/ Grey	VFT	No	**Client ID: S17C - VFT - 12x12 - White with Black and Grey Speck**	
					Non-Fibers	100
2402185-51.2	03-Jan-24	Black	Mastic		**Client ID: S17C - VFT - 12x12 - White with Black and Grey Speck**	
					not analyzed, positive stop	
2402185-52.1	03-Jan-24	White/Brown	VFT	No	**Client ID: S18A - VFT - 12x12 - White with White and Brown Streak**	
					Non-Fibers	100
2402185-52.2	03-Jan-24	Black	Mastic	No	**Client ID: S18A - VFT - 12x12 - White with White and Brown Streak**	
					Cellulose	10
					Non-Fibers	90
2402185-53.1	03-Jan-24	White/Brown	VFT	No	**Client ID: S18B - VFT - 12x12 - White with White and Brown Streak**	
					Non-Fibers	100
2402185-53.2	03-Jan-24	Black	Mastic	No	**Client ID: S18B - VFT - 12x12 - White with White and Brown Streak**	
					Cellulose	5
					Non-Fibers	95
2402185-54.1	03-Jan-24	White/Brown	VFT	No	**Client ID: S18C - VFT - 12x12 - White with White and Brown Streak**	
					Non-Fibers	100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-54.2	03-Jan-24	Black	Mastic	No	**Client ID: S18C - VFT - 12x12 - White with White and Brown Streak**	
					Cellulose	5
					Non-Fibers	95
2402185-55	03-Jan-24	Red/Black	Vinyl Floor Tile/Backing	No	**Client ID: S19A - VFT - 12x12 - Multi Red Pattern** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-56	03-Jan-24	Red/Black	Vinyl Floor Tile/Backing	No	**Client ID: S19B - VFT - 12x12 - Multi Red Pattern** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-57	03-Jan-24	Red/Black	Vinyl Floor Tile/Backing	No	**Client ID: S19C - VFT - 12x12 - Multi Red Pattern** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-58	03-Jan-24	Green/Black	Vinyl Floor Tile/Backing	No	**Client ID: S20A - VFT - 9x9 - Dark Green with Black and White Streak** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-59	03-Jan-24	Green/Black	Vinyl Floor Tile/Backing	No	**Client ID: S20B - VFT - 9x9 - Dark Green with Black and White Streak** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-60	03-Jan-24	Green/Black	Vinyl Floor Tile/Backing	No	**Client ID: S20C - VFT - 9x9 - Dark Green with Black and White Streak** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-61	03-Jan-24	Green/Black	Vinyl Floor Tile/Backing	No	**Client ID: S21A - VFT - 9x9 - Light Green with White Streak** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-62	03-Jan-24	Green/Black	Vinyl Floor Tile/Backing	No	**Client ID: S21B - VFT - 9x9 - Light Green with White Streak** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-63	03-Jan-24	Green/Black	Vinyl Floor Tile/Backing	No	**Client ID: S21C - VFT - 9x9 - Light Green with White Streak** [AS-LR-NA, AS-PRE]	
					Cellulose	30
					Non-Fibers	70
2402185-64.1	03-Jan-24	White	Tile	**Yes**	**Client ID: S22A - VFT - 9x9 - White with Brown Speck**	
					Chrysotile	1
					Non-Fibers	99
2402185-64.2	03-Jan-24	Black	Mastic	**Yes**	**Client ID: S22A - VFT - 9x9 - White with Brown Speck**	
					Chrysotile	2
					Non-Fibers	98
2402185-65.1	03-Jan-24	White	Tile		**Client ID: S22B - VFT - 9x9 - White with Brown Speck**	
					not analyzed, positive stop	
2402185-65.2	03-Jan-24	Black	Mastic		**Client ID: S22B - VFT - 9x9 - White with Brown Speck**	
					not analyzed, positive stop	
2402185-66.1	03-Jan-24	White	Tile		**Client ID: S22C - VFT - 9x9 - White with Brown Speck**	
					not analyzed, positive stop	
2402185-66.2	03-Jan-24	Black	Mastic		**Client ID: S22C - VFT - 9x9 - White with Brown Speck**	
					not analyzed, positive stop	
2402185-67.1	03-Jan-24	Blue	Tile	No	**Client ID: S23A - VSF - Blue - Music/Drama Room**	
					Cellulose	10
					Non-Fibers	90
2402185-67.2	03-Jan-24	Black/Brown	Mastic/Backing	**Yes**	**Client ID: S23A - VSF - Blue - Music/Drama Room** [AS-LR-NA, AS-PT]	
					Chrysotile	0.5
					Non-Fibers	94.5
					Other fibers	5
2402185-68.1	03-Jan-24	Blue	Tile	No	**Client ID: S23B - VSF - Blue - Music/Drama Room**	
					Cellulose	10
					Non-Fibers	90

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-68.2	03-Jan-24	Black/Brown	Mastic/Backing		**Client ID: S23B - VSF - Blue - Music/Drama Room** [AS-LR-NA]	
					not analyzed, positive stop	
2402185-69.1	03-Jan-24	Blue	Tile	No	**Client ID: S23C - VSF - Blue - Music/Drama Room**	
					Cellulose	10
					Non-Fibers	90
2402185-69.2	03-Jan-24	Black/Brown	Mastic/Backing		**Client ID: S23C - VSF - Blue - Music/Drama Room** [AS-LR-NA]	
					not analyzed, positive stop	
2402185-70	03-Jan-24	Black	Duct Wrap	**Yes**	**Client ID: S24A - Duct Wrap Mech Room** [AS-PT]	
				[ASTrc]	**Chrysotile**	<MDL
					Cellulose	5
					MMVF	30
					Non-Fibers	65
2402185-71	03-Jan-24	Black	Duct Wrap	**Yes**	**Client ID: S24B - Duct Wrap Mech Room** [AS-PT]	
				[ASTrc]	**Chrysotile**	<MDL
					Cellulose	5
					MMVF	30
					Non-Fibers	65
2402185-72	03-Jan-24	Black	Duct Wrap	**Yes**	**Client ID: S24C - Duct Wrap Mech Room** [AS-PT]	
				[ASTrc]	**Chrysotile**	<MDL
					Cellulose	5
					MMVF	30
					Non-Fibers	65
2402185-73	03-Jan-24	Black	Membrane	No	**Client ID: S25A - Cut 1 - Membrane** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-74	03-Jan-24	Black	Membrane	No	**Client ID: S25B - Cut 1 - Membrane** [AS-PRE]	
					MMVF	10
					Non-Fibers	90

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-75	03-Jan-24	Black	Membrane	No	**Client ID: S25C - Cut 1 - Membrane** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-76	03-Jan-24	Black	Intermediate layer	No	**Client ID: S26A - Cut 1 - Intermediate Layer** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-77	03-Jan-24	Black	Intermediate layer	**Yes**	**Client ID: S26B - Cut 1 - Intermediate Layer** [AS-PRE, AS-PT]	
				[ASTrc]	**Chrysotile**	<MDL
					MMVF	10
					Non-Fibers	90
2402185-78	03-Jan-24	Black	Intemediate layer	No	**Client ID: S26C - Cut 1 - Intermediate Layer** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-79	03-Jan-24	Black	Vapour barrier	No	**Client ID: S27A - Cut 1 - Vapour Barrier** [AS-PRE]	
					Non-Fibers	100
2402185-80	03-Jan-24	Black	Vapour barrier	No	**Client ID: S27B - Cut 1 - Vapour Barrier** [AS-PRE]	
					Non-Fibers	100
2402185-81	03-Jan-24	Black	Vapour barrier	No	**Client ID: S27C - Cut 1 - Vapour Barrier** [AS-PRE]	
					Non-Fibers	100
2402185-82	03-Jan-24	Black	Membrane	No	**Client ID: S28A - Cut 4 - Membrane** [AS-PRE]	
					Cellulose	10
					MMVF	20
					Non-Fibers	70
2402185-83	03-Jan-24	Black	Membrane	No	**Client ID: S28B - Cut 4 - Membrane** [AS-PRE]	
					Cellulose	10
					MMVF	20
					Non-Fibers	70

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-84	03-Jan-24	Black	Membrane	No	**Client ID: S28C - Cut 4 - Membrane** [AS-PRE]	
					Cellulose	10
					MMVF	20
					Non-Fibers	70
2402185-85	03-Jan-24	Black	Intermediate layer	No	**Client ID: S29A - Cut 4 - Intermediate Layer** [AS-PRE]	
					Cellulose	65
					MMVF	25
					Non-Fibers	10
2402185-86	03-Jan-24	Black	Intermediate layer	No	**Client ID: S29B - Cut 4 - Intermediate Layer** [AS-PRE]	
					Cellulose	65
					MMVF	25
					Non-Fibers	10
2402185-87	03-Jan-24	Black	Intermediate layer	No	**Client ID: S29C - Cut 4 - Intermediate Layer** [AS-PRE]	
					Cellulose	65
					MMVF	25
					Non-Fibers	10
2402185-88	03-Jan-24	Black	Vapour barrier	No	**Client ID: S30A - Cut 4 - Vapour Barrier** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-89	03-Jan-24	Black	Vapour barrier	No	**Client ID: S30B - Cut 4 - Vapour Barrier** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-90	03-Jan-24	Black	Vapour barrier	No	**Client ID: S30C - Cut 4 - Vapour Barrier** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-91	03-Jan-24	Black	Membrane	No	**Client ID: S31A - Cut 5 - Membrane** [AS-PRE]	
					MMVF	10
					Non-Fibers	90

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected		Material Identification	% Content
2402185-92	03-Jan-24	Black	Membrane	No		**Client ID: S31B - Cut 5 - Membrane** [AS-PRE]	
						MMVF	10
						Non-Fibers	90
2402185-93	03-Jan-24	Black	Membrane	No		**Client ID: S31C - Cut 5 - Membrane** [AS-PRE]	
						MMVF	10
						Non-Fibers	90
2402185-94	03-Jan-24	Black	Intermediate layer	No		**Client ID: S32A - Cut 5 - Intermediate Layer** [AS-PRE]	
						Cellulose	60
						MMVF	20
						Non-Fibers	20
2402185-95	03-Jan-24	Black	Intermediate layer	No		**Client ID: S32B - Cut 5 - Intermediate Layer** [AS-PRE]	
						Cellulose	60
						MMVF	20
						Non-Fibers	20
2402185-96	03-Jan-24	Black	Intermediate layer	No		**Client ID: S32C - Cut 5 - Intermediate Layer** [AS-PRE]	
						Cellulose	60
						MMVF	20
						Non-Fibers	20
2402185-97	03-Jan-24	Black	Vapour barrier	**Yes**		**Client ID: S33A - Cut 5 - Vapour Barrier** [AS-PRE]	
					[ASTrc]	**Chrysotile**	<MDL
						Cellulose	10
						MMVF	10
						Non-Fibers	80
2402185-98	03-Jan-24	Black	Vapour barrier	**Yes**		**Client ID: S33B - Cut 5 - Vapour Barrier** [AS-PRE, AS-PT]	
					[ASTrc]	**Chrysotile**	<MDL
						Cellulose	10
						MMVF	10
						Non-Fibers	80

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-99	03-Jan-24	Black	Vapour barrier	No	**Client ID: S33C - Cut 5 - Vapour Barrier** [AS-PRE]	
					Cellulose	10
					MMVF	10
					Non-Fibers	80
2402185-AA	03-Jan-24	Black	Membrane	No	**Client ID: S34A - Cut 6 - Membrane** [AS-PRE]	
					Cellulose	10
					MMVF	10
					Non-Fibers	80
2402185-AB	03-Jan-24	Black	Membrane	No	**Client ID: S34B - Cut 6 - Membrane** [AS-PRE]	
					Cellulose	10
					MMVF	10
					Non-Fibers	80
2402185-AC	03-Jan-24	Black	Membrane	No	**Client ID: S34C - Cut 6 - Membrane** [AS-PRE]	
					Cellulose	10
					MMVF	10
					Non-Fibers	80
2402185-AD	03-Jan-24	Black	Intermediate layer	No	**Client ID: S35A - Cut 6 - Intermediate Layer** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-AE	03-Jan-24	Black	Intermediate layer	No	**Client ID: S35B - Cut 6 - Intermediate Layer** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-AF	03-Jan-24	Black	Intermediate layer	No	**Client ID: S35C - Cut 6 - Intermediate Layer** [AS-PRE]	
					MMVF	10
					Non-Fibers	90
2402185-AG	03-Jan-24	Black	Vapour barrier	No	**Client ID: S36A - Cut 6 - Vapour Barrier** [AS-PRE]	
					Cellulose	10
					Non-Fibers	90

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-AH	03-Jan-24	Black	Vapour barrier	No	**Client ID: S36B - Cut 6 - Vapour Barrier** [AS-PRE]	
					Cellulose	10
					Non-Fibers	90
2402185-AI	03-Jan-24	Black	Vapour barrier	No	**Client ID: S36C - Cut 6 - Vapour Barrier** [AS-PRE]	
					Cellulose	10
					Non-Fibers	90
2402185-AJ	03-Jan-24	Black	Membrane	No	**Client ID: S37A - Membrane** [AS-PRE, Z-01]	
					Non-Fibers	100
2402185-AK	03-Jan-24	Black	Membrane	No	**Client ID: S37B - Membrane** [AS-PRE, Z-01]	
					Non-Fibers	100
2402185-AL	03-Jan-24	Black	Membrane	No	**Client ID: S37C - Membrane** [AS-PRE, Z-01]	
					Non-Fibers	100
2402185-AM	03-Jan-24	Black	Vapour barrier	No	**Client ID: S38A - Vapour Barrier** [AS-PRE]	
					Non-Fibers	100
2402185-AN	03-Jan-24	Black	Vapour barrier	No	**Client ID: S38B - Vapour Barrier** [AS-PRE]	
					Non-Fibers	100
2402185-AO	03-Jan-24	Black	Vapour barrier	No	**Client ID: S38C - Vapour Barrier** [AS-PRE]	
					Non-Fibers	100
2402185-AP.1	03-Jan-24	Green	Vinyl Floor Tile	**Yes**	**Client ID: S39A - 9x9 Green with Black and White Streak**	
					Chrysotile	3
					Non-Fibers	97
2402185-AP.2	03-Jan-24	Black	Mastic	No	**Client ID: S39A - 9x9 Green with Black and White Streak**	
					Non-Fibers	100
2402185-AQ.1	03-Jan-24	Green	Vinyl Floor Tile		**Client ID: S39B - 9x9 Green with Black and White Streak**	
					not analyzed, positive stop	

Certificate of Analysis

Report Date: 16-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mechanical Upgrades DSA

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-AQ.2	03-Jan-24	Black	Mastic	No	**Client ID: S39B - 9x9 Green with Black and White Streak**	
					Non-Fibers	100
2402185-AR.1	03-Jan-24	Green	Vinyl Floor Tile		**Client ID: S39C - 9x9 Green with Black and White Streak**	
					not analyzed, positive stop	
2402185-AR.2	03-Jan-24	Black	Mastic	No	**Client ID: S39C - 9x9 Green with Black and White Streak**	
					Non-Fibers	100
2402185-AS.1	03-Jan-24	Brown	Vinyl Floor Tile	**Yes**	**Client ID: S40A - 12x12 Brown with White Streak**	
					Chrysotile	1
					Non-Fibers	99
2402185-AS.2	03-Jan-24	Brown	Mastic	No	**Client ID: S40A - 12x12 Brown with White Streak**	
					Non-Fibers	100
2402185-AT.1	03-Jan-24	Brown	Vinyl Floor Tile		**Client ID: S40B - 12x12 Brown with White Streak**	
					not analyzed, positive stop	
2402185-AT.2	03-Jan-24	Brown	Mastic	No	**Client ID: S40B - 12x12 Brown with White Streak**	
					Non-Fibers	100
2402185-AU.1	03-Jan-24	Brown	Vinyl Floor Tile		**Client ID: S40C - 12x12 Brown with White Streak**	
					not analyzed, positive stop	
2402185-AU.2	03-Jan-24	Brown	Mastic	No	**Client ID: S40C - 12x12 Brown with White Streak**	
					Non-Fibers	100
2402185-AV	03-Jan-24	Grey	Ceiling Tile	No	**Client ID: S41A - 2x4 CT - Small Fissure Random Pinhole**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30

Certificate of Analysis

Report Date: 16-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mechanical Upgrades DSA

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2402185-AW	03-Jan-24	Grey	Ceiling Tile	No	**Client ID: S41B - 2x4 CT - Small Fissure Random Pinhole**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
2402185-AX	03-Jan-24	Grey	Ceiling Tile	No	**Client ID: S41C - 2x4 CT - Small Fissure Random Pinhole**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30

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

**** Analytes in bold indicate asbestos mineral content.**

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	16-Jan-24

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

Qualifier Notes

Login Qualifiers :

LG-SMP026 Sample(s) received and not indicated on the COC. Proceed with analyses as directed by client

Applies to samples: AP, AQ, AR, AS, AT, AU, AV, AW, AX

Sample Qualifiers :

AS-LR-NA: Layers/materials inseparable, combined and not analysed separately

AS-PRE: Due to the difficult nature of the bulk sample (interfering fibers/binders), additional NOB preparation was required prior to analysis

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

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

Z-01: Sample contains vermiculite.

Work Order Revisions | Comments

None

PARACEL LABORATORIES LTD.

Paracel ID: 2402185

Office
319 St. Laurent Blvd.
va, Ontario K1G 4J8
800-749-1947
racel@paracellabs.com

Chain of Custody
(Lab Use Only)

Client Name: MTE Consultants	Project Reference: 43920-102 - Nelson HS Mechanical Upgrades DSA
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

Turnaround Time:

- ☐ Immediate
- ☐ 4 Hour
- ☐ 8 Hour
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☒ Regular

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

Paracel Order Number: 2402185

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Asbestos - Bulk: Positive Stop?
1	S01 A-C - Large Steam Pipe Insulation	3 Jan 24	-	PLM		☒
2	S02 A-C - Steam Pipe Sealant	3 Jan 24	-	PLM		☒
3	S03 A-C Pipe Elbows Secondary Mech Room	3 Jan 24	-	PLM		☒
4	S04 A-C - Block Wall Mortar	3 Jan 24	-	PLM		☒
5	S05 A-C - Plaster Secondary Mech Room	3 Jan 24	-	PLM		☒
6	S06 A-C - Pipe Elbows Primary Boiler Room	3 Jan 24	-	PLM		☒
7	S07 A-C - Insulation Green Heat Exchanger Primary Boiler Room	3 Jan 24	-	PLM		☒
8	S08 A-C - VFT - 12'x12' White with Brown Streak	3 Jan 24	-	PLM		☒
9	S09 A-C - VFT - 12'x12' White with Brown Speck	3 Jan 24	-	PLM		☒
10	S10 A-C - Sealant above Rads	3 Jan 24	-	PLM		☒
11	S11 A-C - CT - 2'x4' Medium Fissure Random Pin	3 Jan 24	-	PLM		☒
12	S12 A-C - VFT - 12'x12' Beige w/ Oatmeal Pattern	3 Jan 24	-	PLM		☒

*** 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: Purolator

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Aaron Rows			
Date/Time: 9 Jan 24 - 10:40 am	Date/Time:	Date/Time: Jan 10/24 11:15	Date/Time: Jan 10/24 11:20

PARACEL LABORATORIES LTD.

Paracel ID: 2402185

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Chain of Custody
(Lab Use Only)

Client Name: MTE Consultants	Project Reference: 43920-102 - Nelson HS Mechanical Upgrades DSA
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

Turnaround Time:

- ☐ Immediate
- ☐ 4 Hour
- ☐ 8 Hour
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☒ Regular

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

Paracel Order Number: 2402185

	Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Asbestos - Bulk: Positive Stop?
1	S13 A-C - VFT - 12'x12' White with black streak	3 Jan 24	-	PLM		☒
2	S14 A-C - VFT - 12'x12' White with black speck	3 Jan 24	-	PLM		☒
3	S15 A-C - Plaster - Room 126	3 Jan 24	-	PLM		☒
4	S16 A-C - VFT - 12'x12' - White with brown speck	3 Jan 24	-	PLM		☒
5	S17 A-C - VFT - 12'x12' - White with black and Grey speck	3 Jan 24	-	PLM		☒
6	S18 A-C - VFT - 12'x12' - White with white and brown streak	3 Jan 24	-	PLM		☒
7	S19 A-C - VFT - 12'x12' - Multi Red Pattern	3 Jan 24	-	PLM		☒
8	S20 A-C - VFT - 9'x9' - Dark Green with Black and white streak	3 Jan 24	-	PLM		☒
9	S21 A-C - VFT - 9'x9' - Light Green with white streak	3 Jan 24	-	PLM		☒
10	S22 A-C - VFT - 9'x9' white with brown speck	3 Jan 24	-	PLM		☒
11	S23 A-C - VSF - Blue - Music/Drama room	3 Jan 24	-	PLM		☒
12	S24 A-C - Duct Wrap Mech Room	3 Jan 24	-	PLM		☒

*** 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: Purolator

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print):			
Date/Time:	Date/Time:	Date/Time: Jan 10/24 11:15	Date/Time: Jan 10/24 11:20

PARACEL LABORATORIES LTD.

Paracel ID: 2402185

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1319 St. Laurent Blvd.
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Chain of Custody
(Lab Use Only)

Client Name: MTE Consultants	Project Reference: 43920-102 - Nelson HS Mechanical Upgrades DSA	**Turnaround Time:**	
Contact Name: Gavin Oakes; Aaron Rows	Quote #: MTE Standing Offer	☐ Immediate	☐ 1 Day
Address: 1016 Sutton Drive, Unit A	PO #:	☐ 4 Hour	☐ 2 Day
Burlington, ON L7L 6B8	Email Address: goakes@mte85.com	☐ 8 Hour	☐ 3 Day
Telephone: 905-639-2552	arows@mte85.com		☒ Regular
		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

	Paracel Order Number: 2402185 / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	S25 A-C - Cut 1 - Membrane	3 Jan 24	-	PLM		☒
2	S26 A-C - Cut 1 - Intermediate Layer	3 Jan 24	-	PLM		☒
3	S27 A-C - Cut 1 - Vapour Barrier	3 Jan 24	-	PLM		☒
4	S28 A-C - Cut 4 - membrane	3 Jan 24	-	PLM		☒
5	S29 A-C - Cut 4 - Intermediate Layer	3 Jan 24	-	PLM		☒
6	S30 A-C - Cut 4 - Vapour Barrier	3 Jan 24	-	PLM		☒
7	S31 A-C - Cut 5 - Membrane	3 Jan 24	-	PLM		☒
8	S32 A-C - Cut 5 - Intermediate Layer	3 Jan 24	-	PLM		☒
9	S33 A-C - Cut 5 - vapour barrier	3 Jan 24	-	PLM		☒
10	S34 A-C - Cut 6 - Membrane	3 Jan 24	-	PLM		☒
11	S35 A-C - Cut 6 - Intermediate Layer	3 Jan 24	-	PLM		☒
12	S36 A-C - Cut 6 - Vapour Barrierw	3 Jan 24	-	PLM		☒

*** 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: Purolator

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print):			
Date/Time:	Date/Time:	Date/Time: Jan 10/24 11:15	Date/Time: Jan 10/24 11:20

PARACEL LABORATORIES LTD.

Paracel ID: 2402185

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Chain of Custody
(Lab Use Only)

Client Name: MTE Consultants	Project Reference: 43920-102 - Nelson HS Mechanical Upgrades DSA	**Turnaround Time:**	
Contact Name: Gavin Oakes; Aaron Rows	Quote #: MTE Standing Offer	☐ Immediate	☐ 1 Day
Address: 1016 Sutton Drive, Unit A	PO #:	☐ 4 Hour	☐ 2 Day
Burlington, ON L7L 6B8	Email Address: goakes@mte85.com	☐ 8 Hour	☐ 3 Day
Telephone: 905-639-2552	arows@mte85.com		☒ Regular
		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

	Paracel Order Number: 2402185 / Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk: Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	S37 A-C - Membrane	3 Jan 24	-	PLM		☒
2	S38 A-C - Vapour Barrier	3 Jan 24	-	PLM		☒
3						☐
4						☐
5						☐
6						☐
7						☐
8						☐
9						☐
10						☐
11						☐
12						☐

*** 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: Purolator

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print):			
Date/Time:	Date/Time:	Date/Time: Jan 10/24 11:15	Date/Time: Jan 10/24 11:20

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Certificate of Analysis

MTE Consultants Inc. (Burlington)

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

Client PO:
Project: 43920-102 - Nelson HS Mech Upgrades DSA
Custody:

Report Date: 15-Jan-2024
Order Date: 10-Jan-2024

Order #: 2402178

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

Paracel ID	Client ID
2402178-01	LP01 - Grey - Walls - Sec Boiler
2402178-02	LP02 - Grey - Floor - Sec Boiler
2402178-03	LP03 - White - Walls - Primary Boiler
2402178-04	LP04 - Cream - Walls - Classrooms
2402178-05	LP05 - White - Walls - Classrooms
2402178-06	LP06 - Grey - Walls - Classrooms
2402178-07	LP07 - Black - Drama Room

Approved By:

Milan Ralitsch, PhD
Senior Technical Manager

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

Certificate of Analysis

Report Date: 15-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mech Upgrades DSA

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	11-Jan-24	11-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: 15-Jan-2024

Client: MTE Consultants Inc. (Burlington)

Order Date: 10-Jan-2024

Client PO:

Project Description: 43920-102 - Nelson HS Mech Upgrades DSA

Sample Results

Lead

Matrix: Paint

Paracel ID	Client ID	Sample Date	Units	MDL	Result
2402178-01	LP01 - Grey - Walls - Sec Boiler	9-Jan-24	ug/g	5	901
2402178-02	LP02 - Grey - Floor - Sec Boiler	9-Jan-24	ug/g	5	548
2402178-03	LP03 - White - Walls - Primary Boiler	9-Jan-24	ug/g	5	782
2402178-04	LP04 - Cream - Walls - Classrooms	9-Jan-24	ug/g	5	43
2402178-05	LP05 - White - Walls - Classrooms	9-Jan-24	ug/g	5	150
2402178-06	LP06 - Grey - Walls - Classrooms	9-Jan-24	ug/g	5	163
2402178-07	LP07 - Black - Drama Room	9-Jan-24	ug/g	5	22

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	**ND**	**5**	**ug/g**						
Matrix Duplicate									
Lead	**22.4**	**5**	**ug/g**	**23.9**			**6.48**	**50**	
Matrix Spike									
Lead	44.6	5.00	ug/g	ND	87.2	70-130			

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Paracel ID: 2402178

Chain Of Custody
(Lab Use Only)

Client Name: MTE Consultants	Project Ref: 43920-102 - Nelson HS Mech Upgrades DSA	Page 1 of 1
Contact Name: Gavin Oakes; Aaron Rows	Quote #: MTE Standing Offer	**Turnaround Time**
Address: 1016 Sutton Drive, Unit A Burlington, ON L7L 6B8	PO #:	☐ 1 day ☐ 3 day ☐ 2 day ☑ Regular
Telephone: 905-639-2552	E-mail: goakes@mte85.com arows@mte85.com	Date Required:

☐ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Res/Park ☐ Med/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other
☐ Table
For RSC: ☐ Yes ☐ No

Other Regulation

☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
Mun:
☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken: Date	Sample Taken: Time	Required Analysis: Lead
1	LP01 - Grey - Walls - Sec Boiler	P	-	1	3 Jan 24	9:10	X
2	LP02 - Grey - Floor - Sec Boiler	P	-	1	"	9:15	X
3	LP03 - White - Walls - Primary Boiler	P	-	1	"	9:20	X
4	LP04 - Cream - Walls - classrooms	P	-	1	"	9:30	X
5	LP05 - White - Walls - Classrooms	P	-	1	"	10:20	X
6	LP06 - Grey - walls - classrooms	P	-	1	"	11:00	X
7	LP07 - Black - Drama Room	P	-	1	"	11:30	X
8							
9							
10							

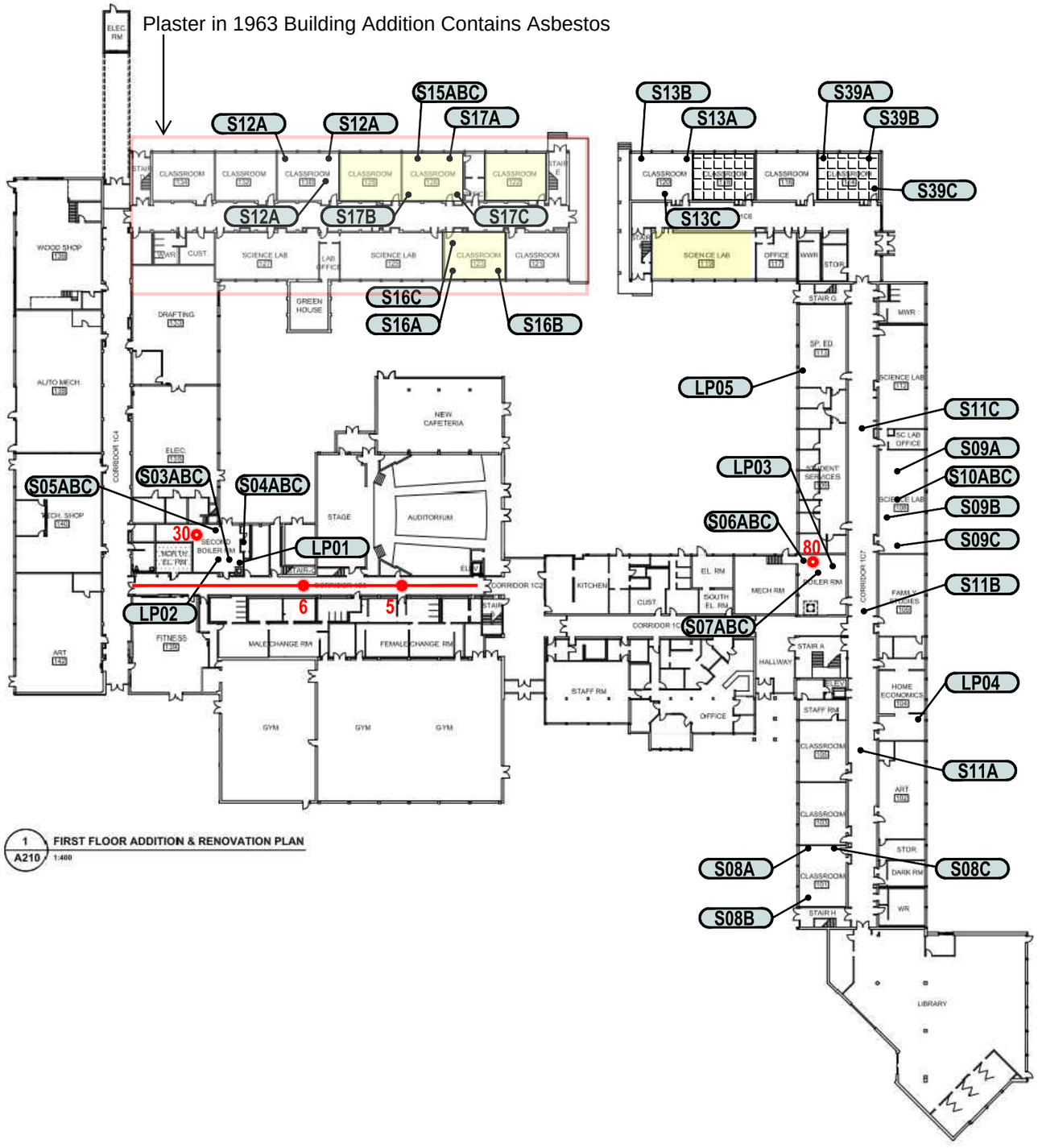
Comments:

Method of Delivery: Purolator

Relinquished By (Sign): Aaron Rows	Received By Driver/Depot:	Received at Lab: dm	Verified By: C-Ply
Relinquished By (Print): Aaron Rows	Date/Time:	Date/Time: 01/10/24 932	Date/Time: 01/10/24 10:05
Date/Time:	Temperature: °C	Temperature:	pH Verified: ☐ By:

Appendix C

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

- S13B — Sample Identification
- ACM Mastic
- ACM Vinyl Floor Tiles
- ACM Pipe Straights
- ACM Pipe Elbows

MTE
Engineers, Scientists, Surveyors

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

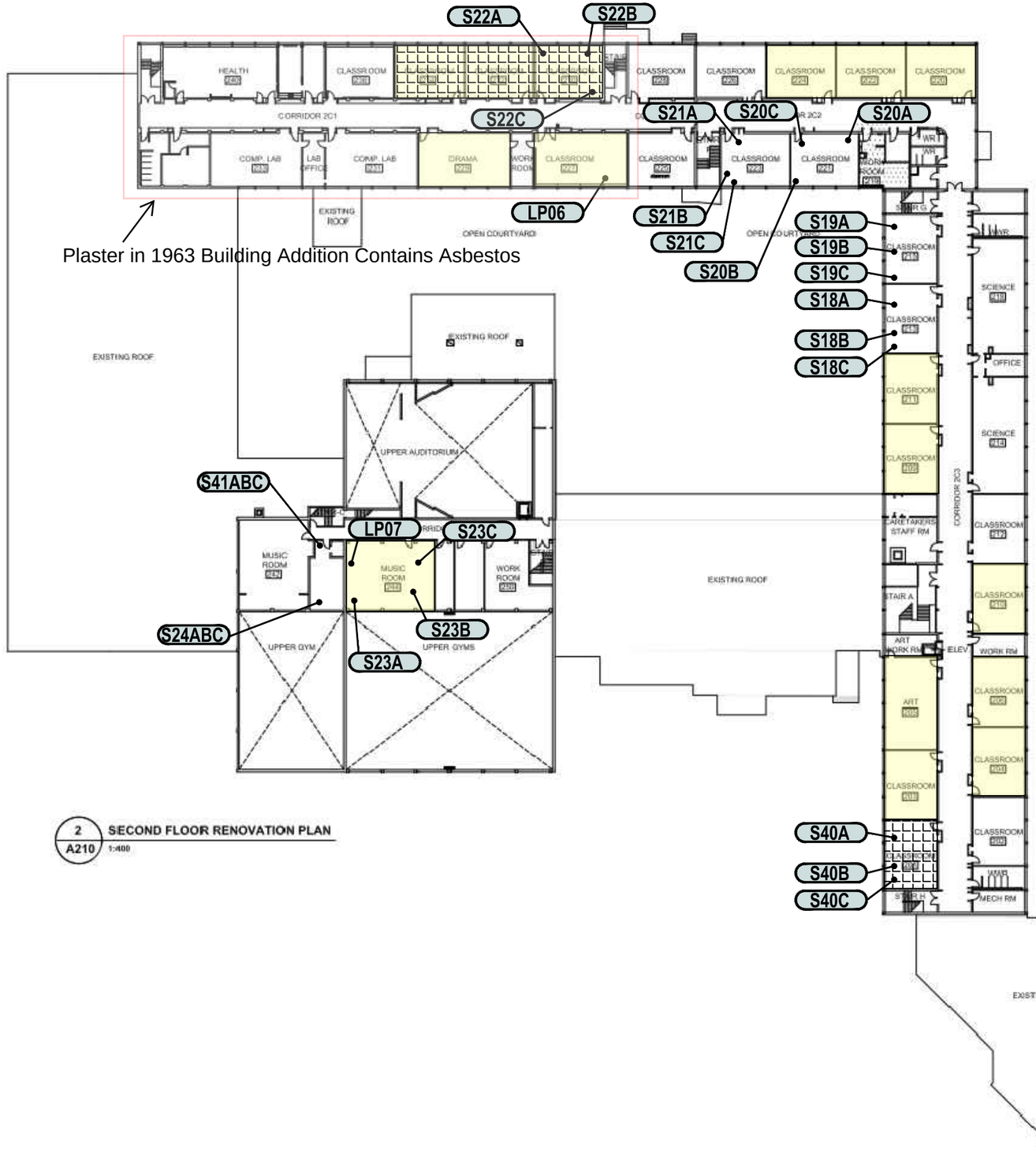
CLIENT
Halton District School Board

PROJECT
DESIGNATED SUBSTANCE AUDIT

DRAWING
FIRST FLOOR ADDITION AND RENOVATION PLAN 4181 NEW STREET BURLINGTON, ON

Project Manager	G. OAKES	Date	January 2024
Baseplan By	MTE	Project No.	43920-102
Figure By	SXS	Drawing No.	1.0
Scale	N.T.S.		

March 20, 2018 - 2:00 pm - Plotted By: MVanRuyven Project: 43923-100 CAD: P:\P\43920\102\43920-102.DWG



2 / A210 SECOND FLOOR RENOVATION PLAN
1:400

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

- S19B — Sample Identification
- ACM Mastic
- ACM Vinyl Floor Tile and Mastic
- ACM Vinyl Floor Tiles

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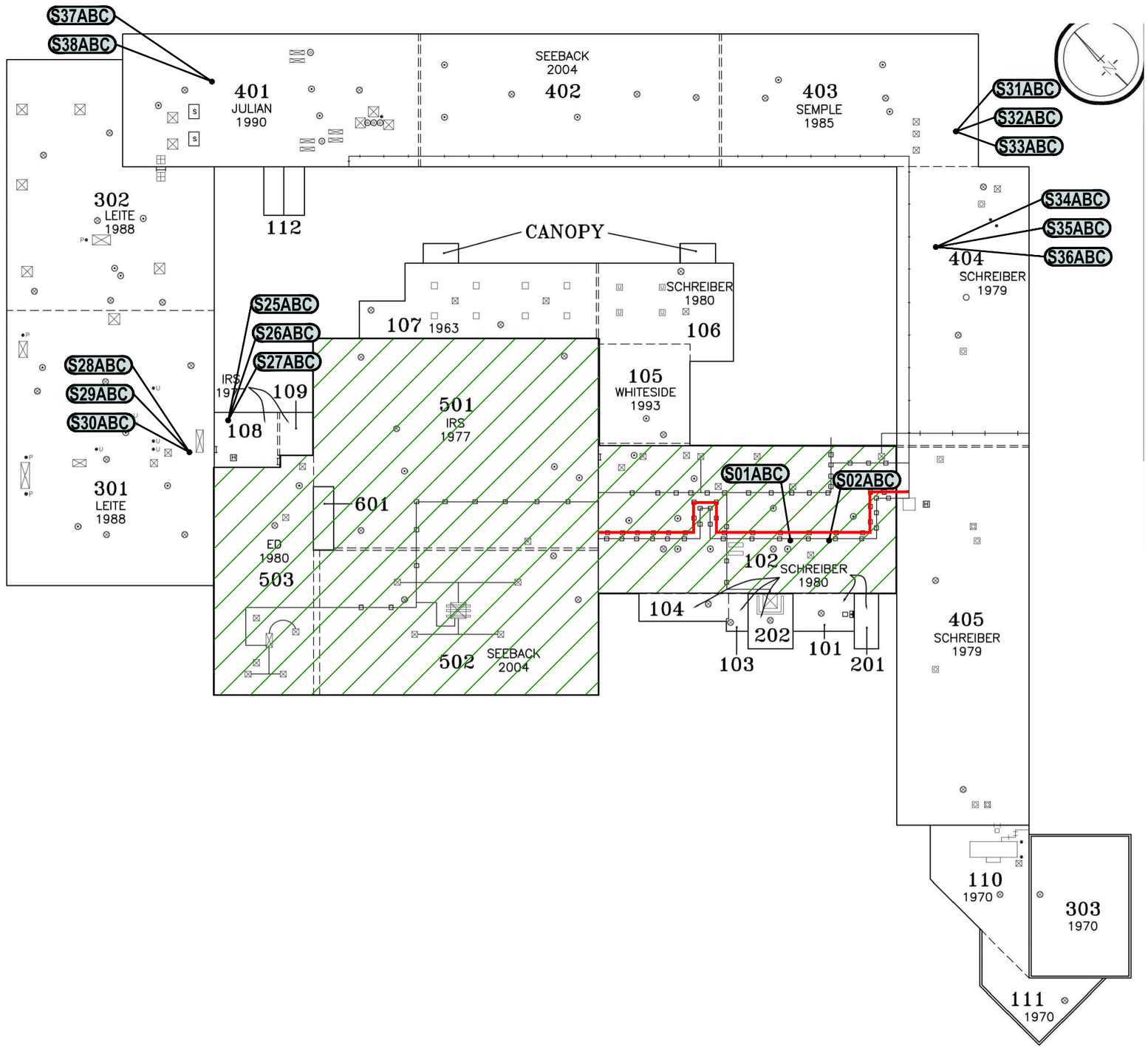
PROJECT
DESIGNATED SUBSTANCE AUDIT

DRAWING
SECOND FLOOR RENOVATION PLAN
4181 NEW STREET
BURLINGTON, ON

Project Manager	G. OAKES	Date	January 2024
Baseplan By	MTE	Project No.	43920-102
Figure By	SXS	Drawing No.	2.0
Scale	N.T.S.		

Project: 43923-100 CAD: P:\43920\102\43920-102.DWG — Plotted By: MVanRuyven — March 20, 2018 — 2:00 pm



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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

S19B — Sample Identification

Non ACM from Previous Survey

ACM Pipe Straights

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Engineers, Scientists, Surveyors

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Halton District School Board

PROJECT

DESIGNATED SUBSTANCE AUDIT

DRAWING

ROOF PLAN
4181 NEW STREET
BURLINGTON, ON

Project Manager	G. OAKES	Date	January 2024
Baseplan By	MTE	Project No.	43920–102
Figure By	SXS	Drawing No.	3.0
Scale	N.T.S.		

Project: 43923–100 CAD: P:\P\43920\102\43920–102.DWG
March 20, 2018 – 2:00 pm – Plotted By: MVanRuyven

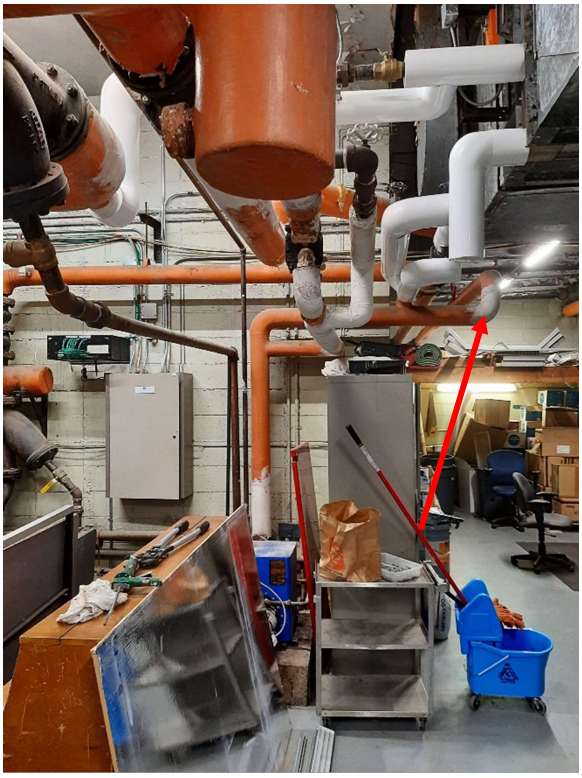
Appendix D

Photographic Log

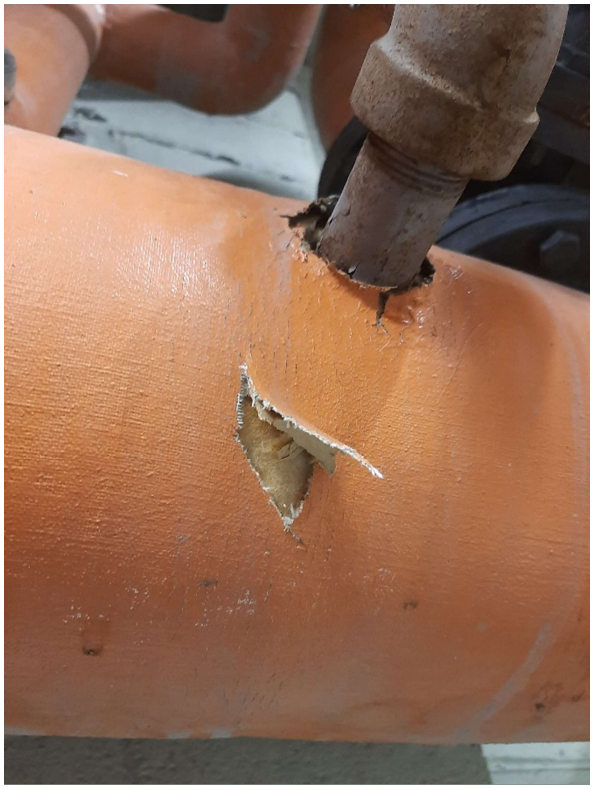
Photograph No. 1 – The insulation within the large steam pipe on roof section 102 was sampled (S01A,B,C) and is asbestos-containing.

Photograph No. 2 – The insulation within the smaller steam pipe adjacent to the large steam pipe was inaccessible and therefore is suspected to contain asbestos.

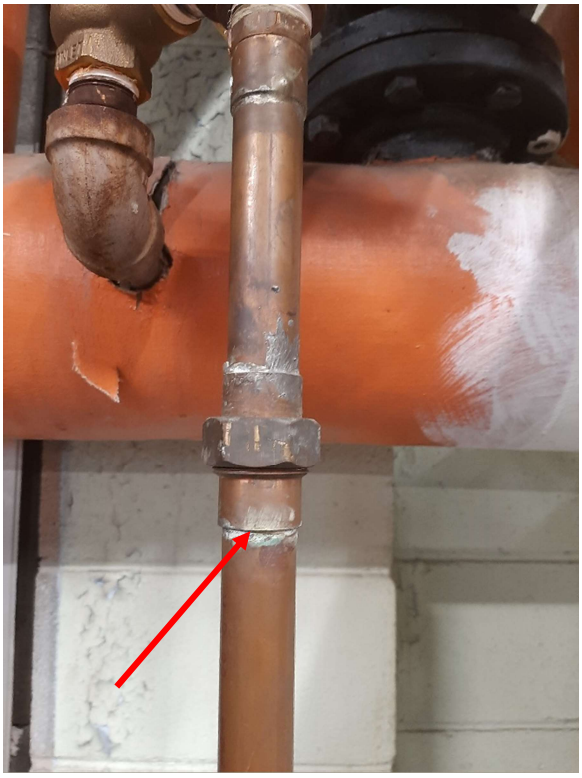
Photograph No. 3 – The sealant associated with the steam pipe mounting was sampled (S02A,B,C) and is not asbestos-containing.



Photograph No. 4 – Pipe elbows within the secondary boiler room were sampled (S03A,B,C) and are asbestos-containing.



Photograph No. 5 – Pipe straights were inspected within the secondary boiler room and were comprised of fiberglass.

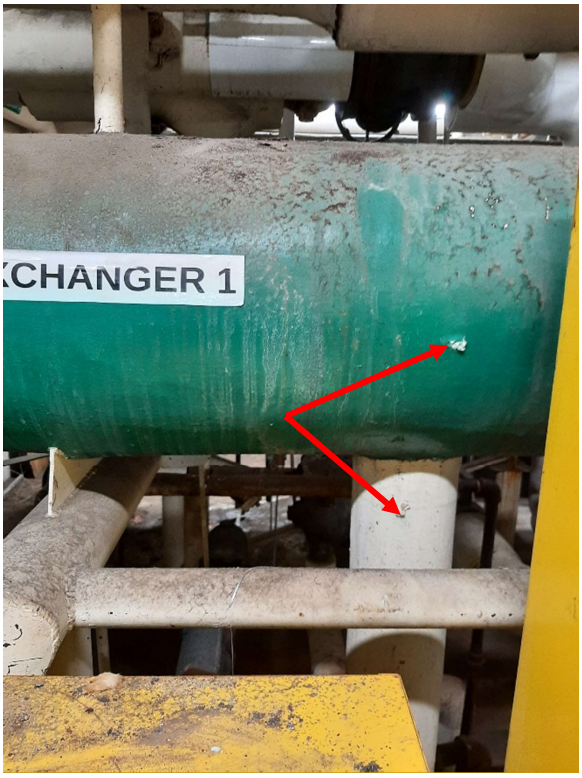


Photograph No. 6 – Suspect lead containing solder on copper pipe connections were observed within the secondary boiler room.

Photograph No. 7 – Pipe elbows within the primary boiler room were sampled (S06A,B,C) and are asbestos-containing.

Photograph No. 8 – Pipe straights throughout the primary boiler room were observed to be comprised of fiberglass.

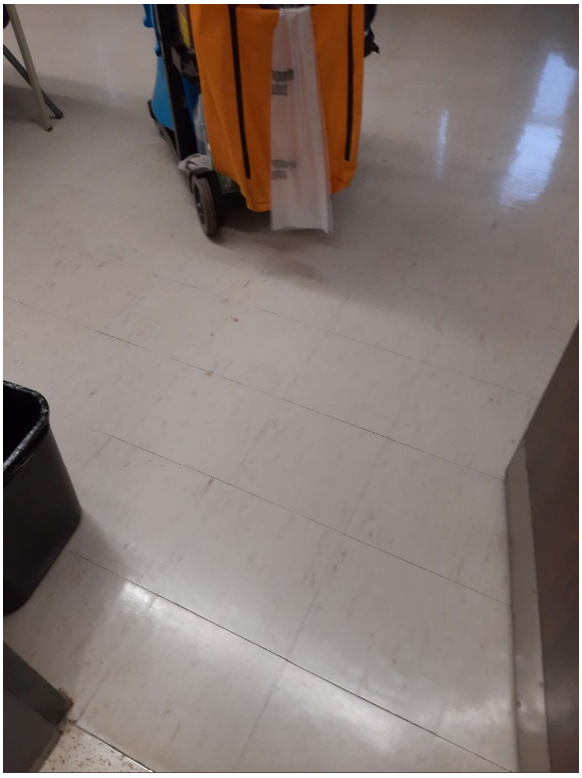
Photograph No. 9 – The insulation on the large white heat exchanger/storage tank was observed to be fiberglass.



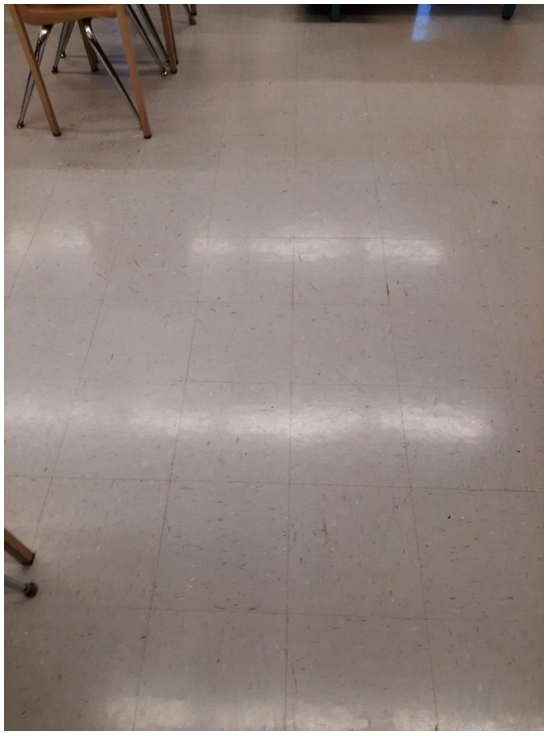
Photograph No. 10 – The insulation on the small green heat exchanger and associated pipe straight was sampled (S07A,B,C) and is asbestos-containing.

Photograph No. 11 – Fire doors were observed at the primary boiler room and are suspected to contain asbestos insulation.

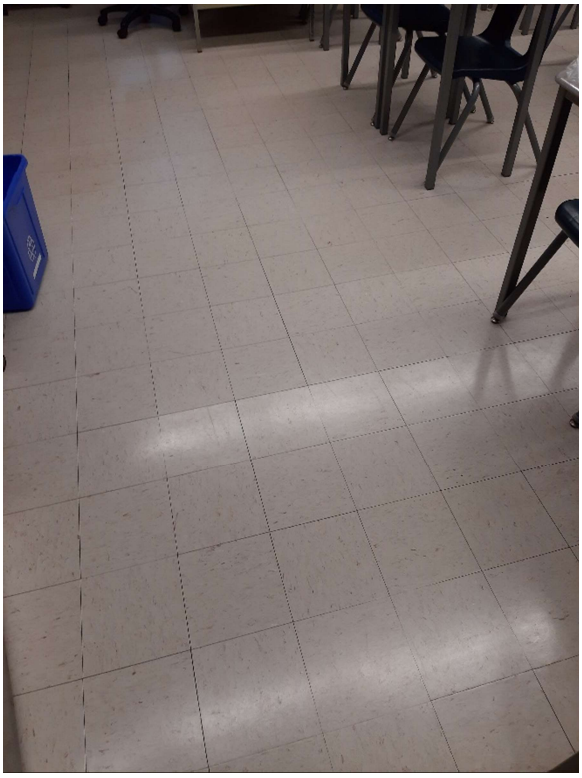
Photograph No. 12 – Plaster was sampled from room 126 (S15A,B,C) and is asbestos-containing.



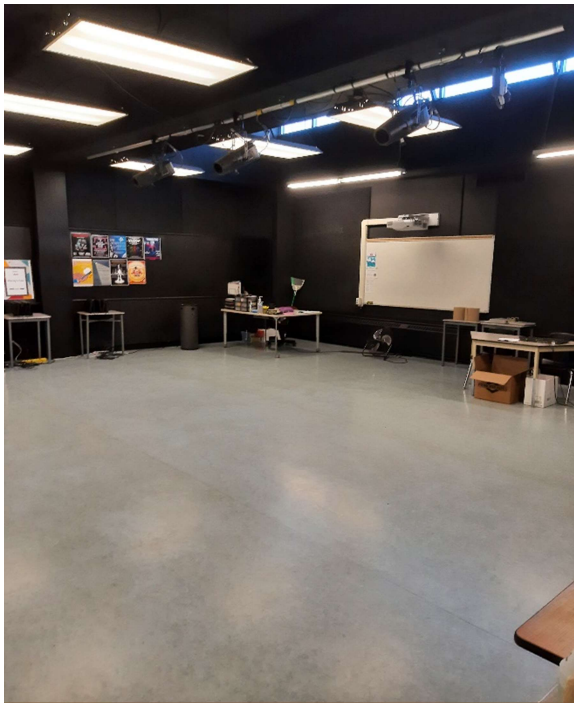
Photograph No. 13 – 12”x12” Vinyl Floor Tile was sampled from room 123 (S16A,B,C) and are not asbestos-containing; however, the associated mastic is asbestos-containing.



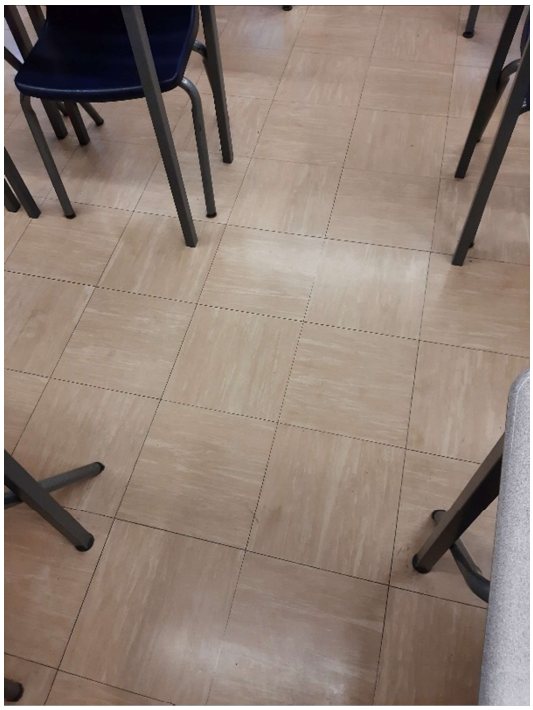
Photograph No. 14 – 12”x12” Vinyl Floor Tile was sampled from room 126 (S17A,B,C) and is not asbestos containing; however, the mastic is asbestos containing.



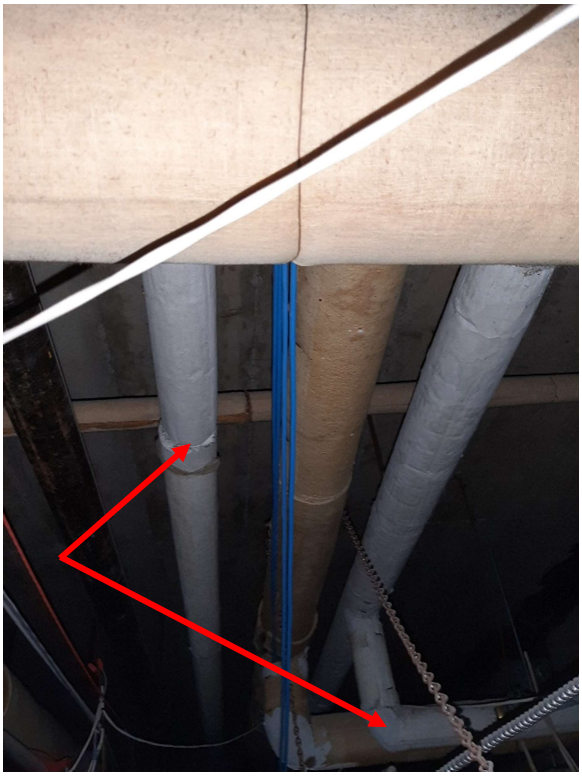
Photograph No. 15 – 9”x9” Vinyl Floor Tile was sampled from room 230 (S22A,B,C) and is asbestos-containing. The associated mastic is also asbestos containing.



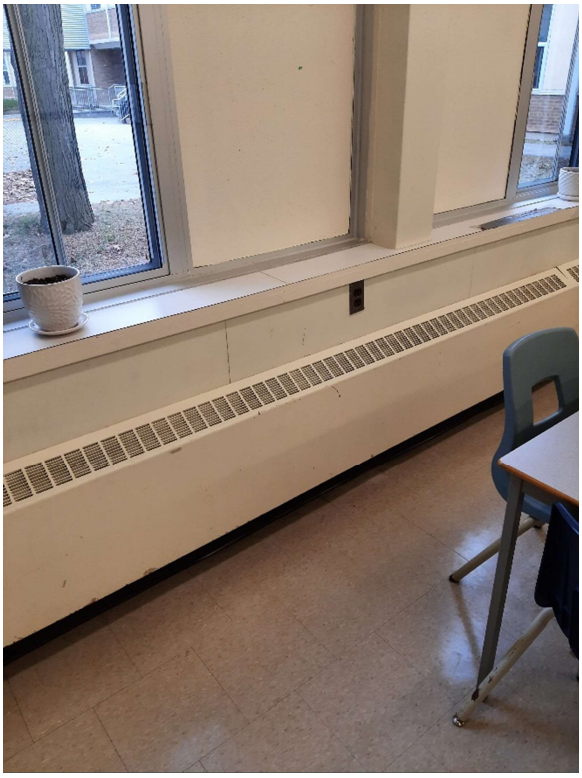
Photograph No. 17 - Vinyl sheet flooring was sampled from classroom 244 and is not asbestos containing; however, the mastic/backing is asbestos containing. The black paint was also sampled (LP07) and is low lever lead-containing.



Photograph No. 18 - 12”x12” Vinyl Floor Tile was sampled from room 2011 (S40A,B,C) and is not asbestos-containing. The mastic is also not asbestos-containing



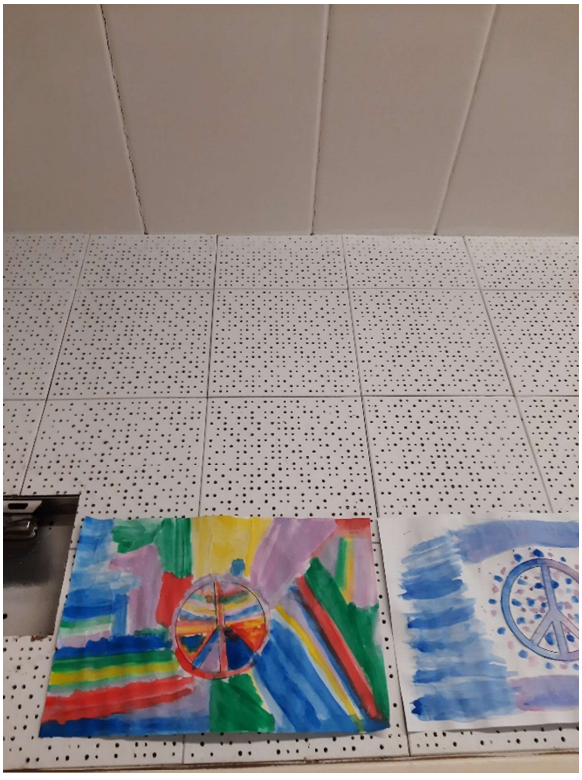
Photograph No. 19 – Asbestos-containing pipe straights and elbows were observed above the drop ceiling in corridor 1C3.



Photograph No. 20 - Interior sealant was sampled (S10A,B,C) and is not asbestos-containing. The cream paint on interior walls was sampled (LP04) and is low level lead-containing.

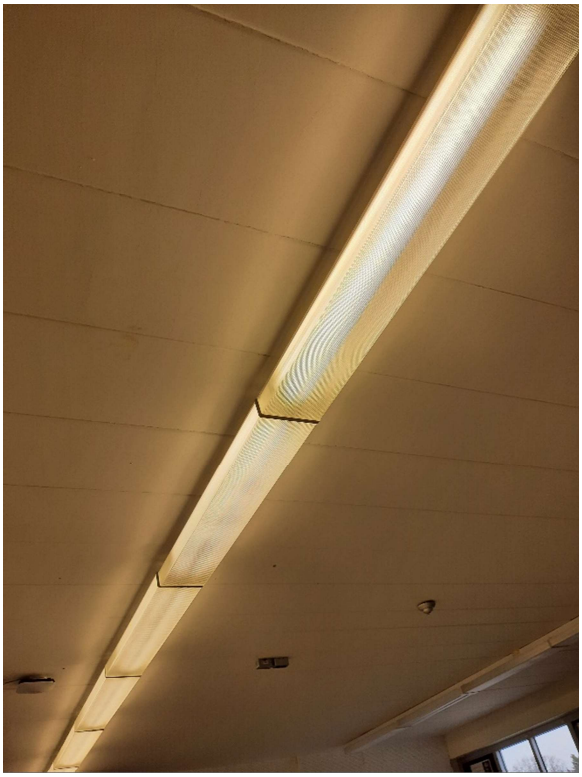
Photograph No. 21 - The gray paint on interior walls was sampled (LP01) and is low level lead-containing.

Photograph No. 22 - Suspect asbestos-containing mastics may be present underneath classroom whiteboards and tackboards.



Photograph No. 23 - Suspect asbestos containing mastics may be present underneath 1'x1' acoustic panels within classrooms.

Photograph No. 24 - Fibreglass pipe straights were observed in classrooms throughout the interior.



Photograph No. 25 – Mercury-containing fluorescent light tubes were observed throughout the interior. Associated light ballasts may potentially contain PCBs.

Photograph No. 26 - The roof system across sections 108, 301, 401, 403, and 404 were sampled. No asbestos materials were confirmed present.