NEW VISION UNITED CHURCH

Final

Designated Substance and Hazardous Materials Assessment

Project Location:
24 Main Street West,
Hamilton, Ontario

Prepared for:
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APPENDICES

1.0 INTRODUCTION

MTE Consultants Inc. (MTE) was retained by New Vision United Church (the Client), to conduct an assessment for the presence of designated substances and select hazardous materials at New Vision United Church located at 24 Main Street West in Hamilton, Ontario.

The purpose of the assessment was to identify potential Designated Substances in accordance with Section 30 of the Occupational Health and Safety Act (OHSA) and select hazardous materials in advance of proposed renovation activities. 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

MTE's scope of work for the project included the following:

- Review of existing or historical reports and documentation pertaining to Designated Substances within the building;
- Visual inspection of all accessible areas within the building 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

Inspection of the Site building was based on visual identification of suspect designated substances and other hazardous building materials. This visual inspection was non-intrusive in nature, and therefore no demolition or equipment dismantling work was performed. The inspection of concealed areas was limited to existing hatches, limited

ceiling tile removals and lifting carpets (where present). Only those materials and/or finishes which were readily accessible were visually inspected.

Where required, samples of building materials suspected to contain asbestos were taken in sufficient quantities as required under Ontario Regulation 278/05. Bulk samples for asbestos content analysis were submitted to Paracel Laboratories Ltd. (Paracel) in Mississauga, Ontario and analysis was performed using Polarized Light Microscopy (PLM) methods, as referenced in Ontario Regulation 278/05. Paracel is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) to perform analysis of asbestos in bulk samples by PLM.

Ontario Regulation 278/05 defines an asbestos-containing material (ACM) as "a material that contains 0.5% or more asbestos by dry weight". Therefore, a bulk sample containing 0.5% or more asbestos by dry weight establishes a material as asbestos-containing.

It should be noted that not all of the samples collected were necessarily analyzed. In instances where a material was determined to contain asbestos in the first or secondary phases of analysis of a homogeneous material, then subsequent samples of the same material did not require analysis. This process is referred to as the "stop positive" method. Alternatively, bulk samples which were comprised of multiple layers (i.e. vinyl floor tiles with mastic) required multiple analyses. Multiple layers of the same sample were isolated by the analytical laboratory and analyzed independently.

Paint scrape samples were collected from painted surfaces which were likely to be impacted by the proposed renovation activities and analyzed for lead content. When collecting paint scrape samples, an attempt was made to incorporate all paint layers present at the sampling location into the sample. Samples were submitted to Paracel Laboratories Ltd. (Paracel) in Hamilton, Ontario for analysis following MOE Method E3470 Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). Paracel is accredited by the Canadian Association of Laboratory Accreditation to perform bulk lead analysis of paint.

All other Designated Substances and hazardous materials were identified by surveyor recognition only and no samples were collected.

4.0 FINDINGS & RESULTS

An inspection of the building was conducted by MTE on April 2, 2019, and May 1, 2019.

The three-storey building was constructed in the early to mid-1900s and is reported to have been renovated in the 1950's and again in the 1990's.

A summary of assessed building elements and the potential Designated Substance or Hazardous Material associated with them is provided below. Refer to Section 4.1 for a summary of findings.

Exterior finishes were not included within the scope of this assessment.

Assessed Building Element	Material or Composition	Potential Designated Substance/Hazardous Material
Insulations	Fibreglass and blown-in cellulose	None
Mechanical Systems/ Insulations	Gas fired hot water heating	None
	Fiberglass insulation covered with Polyvinyl Chloride (PVC)	None
	All painted insulations	Lead in Paints
Electrical Systems	Fluorescent light ballasts	PCBs
	Light tubes, bulbs	Mercury
Plumbing Systems	Solder on copper pipe connections Packing in pipe gaskets of sanitary lines	Lead
Floor Finishes	Vinyl sheet flooring with paper backing Vinyl floor tiles (and associated mastics)	Asbestos
	Laminate, carpet, hardwood, epoxy, rubber Vinyl sheet flooring (with no paper backing)	None
	Concrete Ceramic tile & grout Terrazzo	Silica
Wall Finishes	Concrete Concrete block Ceramic tile & grout	Silica Lead in paints
	Drywall Plaster	Asbestos Lead In paints
Ceiling Finishes	Drywall Plaster 2’ by 4’ ceiling tiles	Asbestos Lead In paints

4.1 Asbestos

Asbestos was used beginning in the early 1900’s in the production of several building materials including, sprayed fireproofing, textured finishes, pipe insulation, mechanical insulations, ceiling tiles, floor coverings, cement products, and drywall joint-filling compound. Due to adverse health effects, asbestos was gradually phased out beginning in the mid 1970’s.

Throughout the course of this assessment, MTE noted materials within the Site building which were suspected of containing asbestos and therefore required sampling prior to disturbance.

On April 2, 2019, the following materials were sampled:

- Drywall joint compound (S01A-C) – Within areas of the basement;
- Plaster and skim coat (S02A-E) – Within areas of the basement;
- Ceiling tiles 2'x4' rough texture pattern (S03A-C) – Within areas of the basement;
- Ceiling tiles 2'x4' short fissure random pinhole pattern (S04A-C) – Within areas of the basement; and
- Ceiling tiles 2'x4' long fissure random pinhole pattern (S05A-C) – Within areas of the basement.

On May 1, 2019, the following materials were sampled:

- Drywall joint compound (S01A-E) – Throughout the Site;
- Plaster and skim coat (S02A-C) – Sanctuary;
- Brown vinyl sheet flooring (S03A-C) – Sanctuary;
- White vinyl floor tile and associated mastic (S04A-C) – Church Hall;
- Grey vinyl floor tile (S05A-C) – Servery;
- White and gold vinyl sheet flooring (S06A-C) – Main foyer washroom;
- Pink vinyl floor tile (S07A-C) – Kitchen; and
- Black and grey vinyl floor tile (S08A-C) – Foyer and church offices.

A total of 43 bulk samples of suspect ACM were submitted for asbestos analysis with a total of 50 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.

A discussion of ACM identified at the time of the inspection, is provided below. All ACM was in good condition, unless otherwise noted.

Non-Friable ACM:

- Vinyl sheet flooring:
  - Vinyl sheet flooring in the foyer washroom (S06A) reported 10% Chrysotile and is considered ACM.
- Plaster and skim coat:
  - The skim coat layer of sample S02A collected from the basement area on April 2, 2019 reported 1% Chrysotile, while the plaster backing reported non-detect for asbestos.
  - Plaster samples taken from the Sanctuary area on May 1, 2019 reported non-detect for asbestos in both layers.

- Skim coat layers throughout the Site shall be deemed as ACM until additional sampling delineates the locations of ACM plaster materials at the Site.

Potentially Concealed Suspect ACM:

- ACM parging insulation on pipe fittings may be concealed by wall or ceiling finishes and requires destructive inspection of finishes;
- ACM parging insulation on pipe fittings in radiators – may be concealed in units;
- Door core insulation - not inspected, requires dismantling of door; and
- Jacketing on electrical wiring – due to age of building may be concealed by wall or ceiling finishes.

4.2 Lead

Lead is historically found in exterior and interior paints, soldering joints, as packing in spigot joints of cast iron drain pipes, flashing panels, and phone cable casing. Buildings constructed before 1980 may contain lead-based paint.

In 1976, federal regulations imposed by Health Canada limited the amount of lead in interior paint to 0.5% by weight or 5000 milligrams per kilogram (mg/kg), parts per million (ppm), or micrograms per gram (μg/g). This threshold criterion is consistent with the 1992 *U.S. Department of Housing and Urban Development* which also assigns a surface concentration general equivalency of 1 milligram per square centimetre (mg/cm^2).

In 2005, Health Canada revised the *Surface Coatings Materials Regulation* SOR/2005-109 to reduce the maximum concentration of lead in paint to 600mg/kg. Effective August 14, 2009, in the United States, the total lead limit set out in 16 C.F.R. 1303, *Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint*, was reduced from 600mg/kg to 90mg/kg in accordance with the *Consumer Product Safety Improvement Act* (CPSIA) of 2008. This applies to paints and similar surface coating materials for consumer use, as well as toys and other articles intended for use by children and furniture articles for consumer use that have a surface coating material applied to them.

In 2011 Health Canada amended the *Surface Coatings Materials Regulation* to lower the maximum amount of lead in paint to 90mg/kg. The purpose of this amendment was to align Canada with the United States in respect of total lead levels in surface coating materials and certain products with surface coating materials applied to them. This lower limit is considered to provide adequate protection to children from lead exposure through ingestion of surface coating materials. The 90mg/kg maximum lead content does not apply to surface coating materials that are used:

- As an anti-corrosive or an anti-weathering coating applied on the interior or exterior surface of any building or equipment that is used for an agricultural or industrial purpose;

- As an anti-corrosive or an anti-weathering coating applied on any structure, other than a building, that is used for an agricultural, industrial or public purpose;
- As a touch-up coating for metal surfaces;
- On traffic signs;
- For graphic art on billboards or similar displays;
- For identification marks in industrial buildings; or
- As material for the purposes of arts, crafts or hobbies, other than material for use by children.

Due care and consideration should be given to ensure that building occupants and workers are not overexposed to lead during or after the construction or maintenance project. Non-construction workers, building users and occupants may be exposed to lead by inhalation of airborne construction dust which, once settled may become re-suspended causing secondary inhalation exposure. Ingestion and possible dermal absorption exposure of settled dust during and after construction is a significant exposure pathway that should not be overlooked. It is important to note that the TWAEV for workers does not apply for office environments and non-worker receptors.

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

A total of 9 paint scrape samples were collected from surfaces which represent the majority of paint colours observed throughout the Site:

On April 2, 2019, the following paints were sampled:

- Green paint above ceiling tiles in Church Hall (LP01).

On May 1, 2019, the following paints were sampled:

- Brown paint in Church Office (LP01)
- Grey paint in NGEN Corridor (LP02)
- Black paint in Youth Lounge (LP03);
- Blue paint in Youth Lounge (LP04);
- Beige paint in Foyer Washroom (LP05);
- Cream paint in Sanctuary (LP06);
- White paint in Church Hall (LP07); and
- Yellow paint in Kitchen (LP08).

Laboratory analysis of a scrape sample collected determined that the lead concentrations of the paint samples was as follows:

April 2, 2019 samples:

- LP01 – 2850 µg/g.

May 1, 2019 samples:

- LP01 – 27µg/g;
- LP02 – 18µg/g;
- LP03 – 67µg/g;
- LP04 – 10µg/g;
- LP05 – 22,700µg/g;
- LP06 – 1,610µg/g;
- LP07 – 17µg/g; and
- LP08 – 19µg/g.

Therefore, LP01 collected on April 2, 2019 is considered lead containing, while LP05 collected on May 1, 2019 is classified as lead-based, and LP06 collected on May 1, 2019 is classified as lead-containing. The remaining samples are classified as low level lead-containing.

Solder on copper pipe connections were visually identified at the Site, and lead pipe gaskets may be concealed within the Site building.

4.3 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.

The following mercury-containing materials were identified by visual observation:

- Fluorescent light tubes; and
- Compact fluorescent bulbs.

4.4 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.

The following building materials were identified and are presumed to contain silica:

- Brick and mortar;
- Terrazzo;
- Poured concrete, concrete block;
- Ceramic tile and grout; and
- Fill and hardscaping throughout the site.

4.5 Other Designated Substances

MTE is not aware of, or been informed of, any industrial processing within the work areas and visual inspection did not indicate the presence of acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, or vinyl chloride within the Subject Area.

4.6 Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) have been historically used within electrical equipment, including florescent and sodium light ballasts, capacitors, transformers, and high-intensity discharge (HID) lamp ballasts.

Fluorescent light fixtures were observed at the Site, however; no light ballasts were inspected as all live electrical equipment that could not be properly and safely de-energized was not assessed. Light ballasts which were not accessed, will require additional investigation to determine their PCB content when removed from service.

4.7 Ozone Depleting Substances

Ozone depleting substances (ODSs) are substances which breakdown in the Earth's stratosphere and cause depletion of the stratospheric ozone layer. ODSs have been historically used as refrigerants in commercial, home and vehicle air conditioners, foam blowing agents, solvents, aerosol spray propellants, fire extinguishing agents and chemical reactants. Some common ODSs include, but are not limited to:

- Chlorofluorocarbons (CFCs);
- Hydrofluorocarbons (HFCs);
- Hydrochlorfluorocarbons (HCFCs);
- Halons;
- Methyl bromide;
- Carbon tetrachloride;
- Hydrobromofluorocarbons (HBFCs);
- Chlorobromomethane; and
- Methyl chloroform.

Refrigerator units were observed in the Kitchen and Servery areas of the site, and are suspected of containing ODS's.

4.8 Mould

Moulds live in the soil, on plants, and on dead or decaying matter. In the outdoors, moulds play a key role in the breakdown of leaves, wood, and other plant debris. Moulds belong to the kingdom "Fungi", and, unlike plants, they lack chlorophyll and must survive by digesting organic materials for food. Most people have a fairly good idea of what mould looks like and how it grows. The old bread that has been left for an extended period of time in the cupboard is one example. When supplied with suitable moisture conditions and time, mould will begin to grow from a single cell and develop a network of microscopic roots that burrow their way into their substrate. Within several days, fuzzy spots ranging in colour may become visible. During the growth cycle, moulds also release a number of volatile chemicals, producing a familiar "musty" or "mouldy" smell.
With a lack of defined exposure criteria, current Health Canada and other agency guidelines on the assessment and control of mould contamination in public buildings are largely based on prudent avoidance (i.e., remove any indoor mould growth or amplification site, regardless of the concentration of mould or their products in the indoor environment). Building inspections, an inventory of past water leaks/infiltration, and source sampling are the primary means of determining whether mould contamination exists within a building.

At the time of the assessment, no visible signs of suspect mould growth were observed within the Subject Area. It should be noted that these conditions may change over time due to unforeseen water intrusion events or other moisture-related issues.

5.0 RECOMMENDATIONS

A summary of recommended actions is provided in Table A3 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 at the time of tendering any work at the building.

Should any additional suspect Designated Substances be discovered during building renovation, 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.

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.

At the time of the audit, all ACM at the building was noted to be in good condition and no abatement action is required at this time.

All asbestos work must be conducted by contractors who are trained and experienced 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.

ACM that could be present in concealed locations may become apparent during construction, renovation, alteration, or maintenance activities. If such activities are required or 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 suspect ACM must cease immediately. Suspect ACM must be treated as asbestos-containing or sampled and proven to not contain asbestos. Any activities that require disturbance of ACM must be performed in accordance with Ontario Regulation 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. Alternatively they may be sampled prior to disturbance to assess the presence of ACM.

Lead

Lead-based paint, lead-containing paint, lead-containing pipe gaskets, and 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 EACO's *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 present and the following general procedures are recommended as a precautionary measure as per Environmental Abatement Council of

Ontario's (EACO) *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.

Building finishes with the lead-based paint require analysis of Leachable Lead according to Ontario Regulation 558/00 prior to disposal, or they can be deemed hazardous. If determined hazardous, materials must then be manifested and disposed of off-site at a Ministry of Environment facility that is licensed to accept hazardous waste.

Mercury

Mercury-containing fluorescent light tubes and fluorescent light bulbs were observed in fixtures. 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.

Silica

Silica is known 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.

Mould

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

It should be noted that the passage of time can alter conditions as they existed at the time of assessment. Future water intrusions may occur which could result in significant structural damage.

PCBs

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

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

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

Ozone Depleting Substances

Based on visual observation ODS were identified and special requirements for management, handing and disposal by the owner, constructor, contractor, sub-contractors and workers apply.

Under current legislation, there are no requirements to remove ODSs from service simply because they are present. However, prior to commencing any work where this equipment will be dismantled, destroyed or disposed of, the refrigerant must be drained by a licensed technician and tagged with a notice indicating that the equipment no longer contains refrigerant. The appropriate notices or records shall be maintained in accordance with O. Reg. 463/10 for a minimum of two (2) years and shall include, but not be limited to, service records, transfers/releases of refrigerants, refrigerant types and refrigerant systems.

6.0 LIMITATIONS

Services performed by MTE were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Environmental Engineering and 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 the Client. It was completed in accordance with the approved Scope of Work referred to above. As such, this report may not deal with all issues potentially applicable 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 building conditions, as they existed during the time period of the assessment. 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.

Sincerely,

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APPENDIX A

TABLES

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE					
Date Sampled	**Sample #**	**Location**	**Material Description**	**Asbestos Results (Type %)**	**Is Material ACM**
April 2, 2019	S01A	Basement Ceilings	Drywall Joint Compound	ND	No
April 2, 2019	S01B	Basement Ceilings	Drywall Joint Compound	ND	No
April 2, 2019	S01C	Basement Ceilings	Drywall Joint Compound	ND	No
April 2, 2019	S02A	Basement Ceilings	Skim Coat	1% Chrysotile	Yes
			Plaster Backing	ND	No
April 2, 2019	S02B	Basement Ceilings	Skim Coat	NA	Yes
			Plaster Backing	ND	No
April 2, 2019	S02C	Basement Ceilings	Skim Coat	NA	Yes
			Plaster Backing	ND	No
April 2, 2019	S02D	Basement Ceilings	Skim Coat	NA	Yes
			Plaster Backing	ND	No
April 2, 2019	S02E	Basement Ceilings	Skim Coat	NA	Yes
			Plaster Backing	ND	No
April 2, 2019	S03A	Basement Ceilings	2'x4' Ceiling Tiles - Rough textured pattern	ND	No
April 2, 2019	S03B	Basement Ceilings	2'x4' Ceiling Tiles - Rough textured pattern	ND	No
April 2, 2019	S03C	Basement Ceilings	2'x4' Ceiling Tiles - Rough textured pattern	ND	No
April 2, 2019	S04A	Basement Ceilings	2'x4' Ceiling Tiles - Short fissure random pinhole pattern	ND	No
April 2, 2019	S04B	Basement Ceilings	2'x4' Ceiling Tiles - Short fissure random pinhole pattern	ND	No
April 2, 2019	S04C	Basement Ceilings	2'x4' Ceiling Tiles - Short fissure random pinhole pattern	ND	No
April 2, 2019	S05A	Basement Ceilings	2'x4' Ceiling Tiles - Long fissure random pinhole pattern	ND	No
April 2, 2019	S05B	Basement Ceilings	2'x4' Ceiling Tiles - Long fissure random pinhole pattern	ND	No
April 2, 2019	S05C	Basement Ceilings	2'x4' Ceiling Tiles - Long fissure random pinhole pattern	ND	No
May 1, 2019	S01A	Games Room	Drywall Joint Compound	ND	No
May 1, 2019	S01B	Servery	Drywall Joint Compound	ND	No
May 1, 2019	S01C	Hogans Alley	Drywall Joint Compound	ND	No
May 1, 2019	S01D	Resource Room	Drywall Joint Compound	ND	No
May 1, 2019	S01E	Kitchen	Drywall Joint Compound	ND	No
May 1, 2019	S02A	Sanctuary	Skim Coat	ND	No
			Plaster Backing	ND	No
May 1, 2019	S02B	Sanctuary	Skim Coat	ND	No
			Plaster Backing	ND	No
May 1, 2019	S02C	Sanctuary	Skim Coat	ND	No
			Plaster Backing	ND	No
May 1, 2019	S03A	Sanctuary	Vinyl Sheet Flooring - Brown	ND	No
May 1, 2019	S03B	Sanctuary	Vinyl Sheet Flooring - Brown	ND	No
May 1, 2019	S03C	Sanctuary	Vinyl Sheet Flooring - Brown	ND	No
May 1, 2019	S04A	Church Hall	Vinyl Floor Tile - White	ND	No
			Mastic	ND	No
May 1, 2019	S04B	Church Hall	Vinyl Floor Tile - White	ND	No
			Mastic	ND	No
May 1, 2019	S04C	Church Hall	Vinyl Floor Tile - White	ND	No
			Mastic	ND	No
May 1, 2019	S05A	Servery	Vinyl Floor Tile - Grey	ND	No
May 1, 2019	S05B	Servery	Vinyl Floor Tile - Grey	ND	No
May 1, 2019	S05C	Servery	Vinyl Floor Tile - Grey	ND	No
May 1, 2019	S06A	Foyer Washroom	Vinyl Sheet Flooring - CreamMarble Pattern	10% Chrysotile	Yes
May 1, 2019	S06B	Foyer Washroom	Vinyl Sheet Flooring - CreamMarble Pattern	NA	Yes
May 1, 2019	S06C	Foyer Washroom	Vinyl Sheet Flooring - CreamMarble Pattern	NA	Yes

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE					
Date Sampled	**Sample #**	**Location**	**Material Description**	**Asbestos Results (Type %)**	**Is Material ACM**
May 1, 2019	S07A	Kitchen	Vinyl Floort Tile - Pink	ND	No
May 1, 2019	S07B	Kitchen	Vinyl Floort Tile - Pink	ND	No
May 1, 2019	S07C	Kitchen	Vinyl Floort Tile - Pink	ND	No
May 1, 2019	S08A	Foyer and Stairs	Vinyl Floor Tile - Black and Grey	ND	No
May 1, 2019	S08B	Foyer and Stairs	Vinyl Floor Tile - Black and Grey	ND	No
May 1, 2019	S08C	Foyer and Stairs	Vinyl Floor Tile - Black and Grey	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					
Date Sampled	**Sample #**	**Location**	**Material Description**	**Lead Content (ug/g)**	**Classification**
April 2, 2019	LP01	Above Basement Ceilings	Green Paint	2,850	Lead-Containing
May 1, 2019	LP01	Church Office	Brown Paint	27	Low Level Lead-Containing
May 1, 2019	LP02	NGEN Corridor	Grey Paint	18	Low Level Lead-Containing
May 1, 2019	LP03	Youth Lounge	Black Paint	67	Low Level Lead-Containing
May 1, 2019	LP04	Youth Lounge	Blule Paint	10	Low Level Lead-Containing
May 1, 2019	LP05	Foyer Washroom	Beige Paint	22,700	**Lead-Based**
May 1, 2019	LP06	Sanctuary	Cream Paint	1,610	Lead-Containing
May 1, 2019	LP07	Church Hall	White Paint	17	Low Level Lead-Containing
May 1, 2019	LP08	Kitchen	Yellow Paint	19	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				
New Vision United Church - 24 Main St West, Hamilton, ON				
Material	**Location**	**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	Foyer Washrooms	Vinyl Sheet Flooring - Cream Marble Pattern	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	Walls and Ceilings Throughout Site	Plaster Skim Coat	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
Potentially Concealed Asbestos	Electrical Wiring Throughout Interior of Building	Jacketing on Electrical Wiring	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	Doors Throughout Building	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	Concealed Areas in Walls and Ceilings Throughout Building	Parging Pipe Elbow 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

Table 4.3 - Summary of Designated Substances and Recommended Actions				
New Vision United Church - 24 Main St West, Hamilton, ON				
Material	**Location**	**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**
Lead-Based Paint	Foyer Washrooms	Beige Paint on Drywall	In place management in accordance with EACO's Lead Guideline	Removal as required prior to maintenance, renovations, construction or demolition activities in accordance with EACO's Lead Guideline as a: Class 1, Class 2A, Class 3A, or a Class 3B Operation If paint is not removed prior to disposal of building finishes, these materials require analysis of Leachable Lead according to Ontario Regulation 558/00. If confirmed or deemed hazardous, materials must then be manifested and disposed of off-site at a Ministry of Environment facility that is licensed to accept hazardous waste.
Lead-Containing Paint	Sanctuary	Cream Paint on Plaster	In place management in accordance with EACO's Lead Guideline	Removal as required prior to maintenance, renovations, construction or demolition activities in accordance with EACO's Lead Guideline as a: Class 1, Class 2A, Class 3A, or a Class 3B Operation
	Basement Above Ceilings	Green Paint on Plaster		
Low Level Lead-Containing Paint	Church Office	Brown Paint on Drywall	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
	NGEN Corridor	Grey Paint on Drywall		
	Youth Lounge	Black Paint on Drywall		
	Youth Lounge	Blule Paint on Drywall		
	Church Hall	White Paint on Drywall		
	Kitchen	Yellow Paint on Drywall		
Lead	Throughout Interior of Building on Plumbing Connections	Lead Solder on Copper Pipe	In place management in accordance with EACO's Lead Guideline	Removal prior to renovation/demolition activities in accordance with EACO's Lead Guideline as a: Class 1 Operation

Table 4.3 - Summary of Designated Substances and Recommended Actions				
New Vision United Church - 24 Main St West, Hamilton, ON				
Material	**Location**	**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**
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 EACO's Lead Guideline as a: Class 1 Operation
Mercury	Throughout Interior of Building in Light Fixtures	Fluorescent Light Tubes and Compact Fluorescent Bulbs 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	Brick and Mortar, Terrazzo, Stucco, Refractory Brick; Concrete, Ceramic Tile and Grout, Granite, Sandstone, Quartzite and Slate, Fill and Hardscaping	None	Conduct any work during renovation, demolition activities in accordance with the Ministry of Labour Guideline Silica on Construction Projects
Potential 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
ODS	Servery and Kitchen	Refrigerator Units	None	Prior to the removal and disposal of equipment suspected of containing ODS, a licensed technician should be retained to drain and tag the equipment in a manner authorized under O. Reg. 463/10

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
Mississauga, ON, L5N 5M1
1-800-749-1947
www.paracellabs.com

Certificate of Analysis

MTE Consultants Inc. (Burlington)

1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8
Attn: Mike VanRuyven

Client PO:
Project: 45649-100
Custody:

Report Date: 5-Apr-2019
Order Date: 4-Apr-2019

Order #: 1914420

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

Paracel ID	Client ID
1914420-01	S01A
1914420-02	S01B
1914420-03	S01C
1914420-04	S02A
1914420-05	S02A
1914420-06	S02B
1914420-07	S02B
1914420-08	S02C
1914420-09	S02C
1914420-10	S02D
1914420-11	S02D
1914420-12	S02E
1914420-13	S02E
1914420-14	S03A
1914420-15	S03B
1914420-16	S03C
1914420-17	S04A
1914420-18	S04B
1914420-19	S04C
1914420-20	S05A
1914420-21	S05B
1914420-22	S05C

Approved By:

Harling Caro
Senior Analyst

PARACEL LABORATORIES LTD.

Order #: 1914420

Certificate of Analysis

Client: MTE Consultants Inc. (Burlington)

Client PO:

Report Date: 05-Apr-2019

Order Date: 4-Apr-2019

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1914420-01	02-Apr-19	White	Drywall Joint Compound	No	**Client ID: S01A**	
					Non-Fibers	100
1914420-02	02-Apr-19	White	Drywall Joint Compound	No	**Client ID: S01B**	
					Non-Fibers	100
1914420-03	02-Apr-19	White	Drywall Joint Compound	No	**Client ID: S01C**	
					Non-Fibers	100
1914420-04	02-Apr-19	Grey	Plaster Backing	No	**Client ID: S02A**	
					Non-Fibers	99
					Other fibers	1
1914420-05	02-Apr-19	White	Skim Coat	**Yes**	**Client ID: S02A**	
					Chrysotile	1
					Non-Fibers	99
1914420-06	02-Apr-19	Grey	Plaster backing	No	**Client ID: S02B**	
					Non-Fibers	99
					Other fibers	1
1914420-07	02-Apr-19				**Client ID: S02B**	
					not analyzed	
1914420-08	02-Apr-19	Grey	Plaster backing	No	**Client ID: S02C**	
					Non-Fibers	99
					Other fibers	1
1914420-09	02-Apr-19				**Client ID: S02C**	
					not analyzed	
1914420-10	02-Apr-19	Grey	Plaster backing	No	**Client ID: S02D**	
					Non-Fibers	100

Certificate of Analysis

Client: MTE Consultants Inc. (Burlington)

Client PO:

Report Date: 05-Apr-2019

Order Date: 4-Apr-2019

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1914420-11	02-Apr-19				**Client ID: S02D**	
					not analyzed	
1914420-12	02-Apr-19	Grey	Plaster backing	No	**Client ID: S02E**	
					Non-Fibers	100
1914420-13	02-Apr-19				**Client ID: S02E**	
					not analyzed	
1914420-14	02-Apr-19	White/Grey	Ceiling Tile	No	**Client ID: S03A**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
1914420-15	02-Apr-19	White/Grey	Ceiling Tile	No	**Client ID: S03B**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
1914420-16	02-Apr-19	White/Grey	Ceiling Tile	No	**Client ID: S03C**	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
1914420-17	02-Apr-19	Grey	Ceiling Tile	No	**Client ID: S04A**	
					Cellulose	30
					MMVF	40
					Non-Fibers	30
1914420-18	02-Apr-19	Grey	Ceiling Tile	No	**Client ID: S04B**	
					Cellulose	30
					MMVF	40
					Non-Fibers	30

PARACEL LABORATORIES LTD.

Order #: 1914420

Certificate of Analysis

Client: MTE Consultants Inc. (Burlington)

Client PO:

Report Date: 05-Apr-2019

Order Date: 4-Apr-2019

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1914420-19	02-Apr-19	Grey	Ceiling Tile	No	**Client ID: S04C**	
					Cellulose	30
					MMVF	40
					Non-Fibers	30
1914420-20	02-Apr-19	White/Grey	Ceiling Tile	No	**Client ID: S05A**	
					Cellulose	20
					MMVF	60
					Non-Fibers	20
1914420-21	02-Apr-19	White/Grey	Ceiling Tile	No	**Client ID: S05B**	
					Cellulose	20
					MMVF	60
					Non-Fibers	20
1914420-22	02-Apr-19	White/Grey	Ceiling Tile	No	**Client ID: S05C**	
					Cellulose	20
					MMVF	60
					Non-Fibers	20

* 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	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	1 - Mississauga	200863-0	4-Apr-19

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

Work Order Revisions | Comments

None

PARACEL LABORATORIES LTD. | RELIABLE.

Paracel ID: 1914420

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tario K1G 4J8
9-1947
paracel@paracellabs.com

Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: MTE Consultants Inc.	Project Reference: 45649-100
Contact Name: Mchael VanRuyven	Quote #:
Address: 1016 Sutton Drive, Unit A Burlington, Ont.	PO #:
Telephone: 905-639-2552	Email Address: mvanruyven@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: 1914420

	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	S01A-C	02/04/19			Drywall joint compound	☒
2	S02A-E	02/04/19			Plaster backing and skim coat	☒
3	S03A-C	02/04/19			Ceiling tile rough texture	☒
4	S04A-C	02/04/19			Ceiling tile SFRP	☒
5	S05A-C	02/04/19			Ceiling tile LFRP	☒
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: Paracel

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Michael VanRuyven			
Date/Time: April 3, 2019 3pm	Date/Time:	Date/Time: April 4-19 8:25	Date/Time: April 4-19 10:00

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Certificate of Analysis

MTE Consultants Inc. (Burlington)

1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8
Attn: Mike VanRuyven

Client PO:
Project: 45649-100
Custody:

Report Date: 6-May-2019
Order Date: 2-May-2019

Order #: 1918429

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

Paracel ID	Client ID
1918429-01	S01A
1918429-02	S01B
1918429-03	S01C
1918429-04	S01D
1918429-05	S01E
1918429-06	S02A
1918429-07	S02A
1918429-08	S02B
1918429-09	S02B
1918429-10	S02C
1918429-11	S02C
1918429-12	S03A
1918429-13	S03B
1918429-14	S03C
1918429-15	S04A
1918429-16	S04A
1918429-17	S04B
1918429-18	S04B
1918429-19	S04C
1918429-20	S04C
1918429-21	S05A
1918429-22	S05B
1918429-23	S05C
1918429-24	S06A
1918429-25	S06B
1918429-26	S06C

Approved By:

Emma Diaz

Senior Analyst

1918429-27	S07A
1918429-28	S07A
1918429-29	S07B
1918429-30	S07B
1918429-31	S07C
1918429-32	S07C
1918429-33	S08A
1918429-34	S08B
1918429-35	S08C

Certificate of Analysis

Client: MTE Consultants Inc. (Burlington)

Client PO:

Report Date: 06-May-2019

Order Date: 2-May-2019

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1918429-01	01-May-19	White	Drywall Joint Compound	No	**Client ID: S01A**	
					Non-Fibers	100
1918429-02	01-May-19	White	Drywall Joint Compound	No	**Client ID: S01B**	
					Non-Fibers	100
1918429-03	01-May-19	White	Drywall Joint Compound	No	**Client ID: S01C**	
					Non-Fibers	100
1918429-04	01-May-19	White	Drywall Joint Compound	No	**Client ID: S01D**	
					Non-Fibers	100
1918429-05	01-May-19	White	Drywall Joint Compound	No	**Client ID: S01E**	
					Non-Fibers	100
1918429-06	01-May-19	Grey	Plaster	No	**Client ID: S02A**	
					Non-Fibers	100
1918429-07	01-May-19	White	Skim Coat	No	**Client ID: S02A**	
					Non-Fibers	100
1918429-08	01-May-19	Grey	Plaster	No	**Client ID: S02B**	
					Non-Fibers	100
1918429-09	01-May-19	White	Skim Coat	No	**Client ID: S02B**	
					Non-Fibers	100
1918429-10	01-May-19	Grey	Plaster	No	**Client ID: S02C**	
					Non-Fibers	100
1918429-11	01-May-19				**Client ID: S02C**	[Z-01]
					not analyzed	
1918429-12	01-May-19	Brown	Flooring	No	**Client ID: S03A**	
					Cellulose	15
					Non-Fibers	85

Certificate of Analysis

Client: MTE Consultants Inc. (Burlington)

Client PO:

Report Date: 06-May-2019

Order Date: 2-May-2019

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1918429-13	01-May-19	Brown	Flooring	No	**Client ID: S03B**	
					Cellulose	15
					Non-Fibers	85
1918429-14	01-May-19	Brown	Flooring	No	**Client ID: S03C**	
					Cellulose	15
					Non-Fibers	85
1918429-15	01-May-19	White	Vinyl Floor Tile	No	**Client ID: S04A**	
					Non-Fibers	100
1918429-16	01-May-19	Black	Mastic	No	**Client ID: S04A**	
					Non-Fibers	100
1918429-17	01-May-19	White	Vinyl Floor Tile	No	**Client ID: S04B**	
					Non-Fibers	100
1918429-18	01-May-19	Black	Mastic	No	**Client ID: S04B**	
					Non-Fibers	100
1918429-19	01-May-19	White	Vinyl Floor Tile	No	**Client ID: S04C**	
					Non-Fibers	100
1918429-20	01-May-19	Black	Mastic	No	**Client ID: S04C**	
					Non-Fibers	100
1918429-21	01-May-19	Grey	Vinyl Floor Tile	No	**Client ID: S05A**	
					Non-Fibers	100
1918429-22	01-May-19	Grey	Vinyl Floor Tile	No	**Client ID: S05B**	
					Non-Fibers	100
1918429-23	01-May-19	Grey	Vinyl Floor Tile	No	**Client ID: S05C**	
					Non-Fibers	100

Certificate of Analysis

Client: MTE Consultants Inc. (Burlington)

Client PO:

Report Date: 06-May-2019

Order Date: 2-May-2019

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1918429-24	01-May-19	Beige	Vinyl Floor Tile	**Yes**	**Client ID: S06A**	
					Chrysotile	10
					Cellulose	15
					Non-Fibers	75
1918429-25	01-May-19				**Client ID: S06B**	
					not analyzed	
1918429-26	01-May-19				**Client ID: S06C**	
					not analyzed	
1918429-27	01-May-19	Pink	Vinyl Floor Tile	No	**Client ID: S07A**	
					Non-Fibers	100
1918429-28	01-May-19	Black	Mastic	No	**Client ID: S07A**	
					Non-Fibers	100
1918429-29	01-May-19	Pink	Vinyl Floor Tile	No	**Client ID: S07B**	
					Non-Fibers	100
1918429-30	01-May-19	Black	Mastic	No	**Client ID: S07B**	
					Non-Fibers	100
1918429-31	01-May-19	Pink	Vinyl Floor Tile	No	**Client ID: S07C**	
					Non-Fibers	100
1918429-32	01-May-19	Black	Mastic	No	**Client ID: S07C**	
					Non-Fibers	100
1918429-33	01-May-19	Black/Grey	Vinyl Floor Tile	No	**Client ID: S08A**	
					Cellulose	5
					Non-Fibers	95

PARACEL LABORATORIES LTD.

Order #: 1918429

Certificate of Analysis

Report Date: 06-May-2019

Client: MTE Consultants Inc. (Burlington)

Order Date: 2-May-2019

Client PO:

Project Description: 45649-100

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

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1918429-34	01-May-19	Black/Grey	Vinyl Floor Tile	No	**Client ID: S08B**	
					Cellulose	5
					Non-Fibers	95
1918429-35	01-May-19	Black/Grey	Vinyl Floor Tile	No	**Client ID: S08C**	
					Cellulose	5
					Non-Fibers	95

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

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	1 - Mississauga	200863-0	3-May-19

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

Qualifier Notes

Sample Qualifiers :

Z-01: No skim coat present in sample

Work Order Revisions | Comments

None

Paracel ID: 1918429

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rent Blvd.
K1G 4J8
7
paracel@paracellabs.com

Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: MTE Consultants Inc	Project Reference: 45649-100
Contact Name: Michael VanRuyven	Quote #:
Address: 1016 Sutton Drive, Unit A Burlington, ON	PO #:
Telephone: 905-639-2552	Email Address: mvanruyven@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: 1918429

	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	S01A-E	1-05-19			Drywall joint compound - Throughout	☒
2	S02A-C	1-05-19			Plaster and skim coat - Sanctuary	☒
3	S03A-C	1-05-19			Brown Rolled Flooring	☒
4	S04A-C	1-05-19			White VFT and Mastic - Church Hall	☒
5	S05A-C	1-05-19			Grey VFT - Servery	☒
6	S06A-C	1-05-19			VSF - Main Foyer Washroom	☐
7	S07A-C	1-05-19			Pink VFT and Mastic - Kitchen	☐
8	S08A-C	1-05-19			Black and Grey VFT - Foyer	☐
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): Michael Van Ruyven			
Date/Time: May 1, 2019 3pm	Date/Time:	Date/Time: May 2-19 9:00	Date/Time: May 2-19 10:20

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Certificate of Analysis

MTE Consultants Inc. (Burlington)

1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8
Attn: Mike VanRuyven

Client PO:
Project: 45649-100
Custody:

Report Date: 4-Apr-2019
Order Date: 4-Apr-2019

Order #: 1914409

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

Paracel ID	Client ID
1914409-01	LP01- Green paint above ceilings

Approved By:

Milan Ralitsch, PhD
Senior Technical Manager

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

Report Date: 04-Apr-2019
Order Date: 4-Apr-2019
Project Description: 45649-100

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	4-Apr-19	4-Apr-19

Sample and QC Qualifiers Notes

1- QM-4X : The spike recovery was outside of QC acceptance limits due to elevated analyte concentration.

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

Report Date: 04-Apr-2019
Order Date: 4-Apr-2019
Project Description: 45649-100

Sample Results

Lead

Matrix: Paint
Sample Date: 02-Apr-19

Paracel ID	Client ID	Units	MDL	Result
1914409-01	LP01- Green paint above ceilings	ug/g	5	2850

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	**3260**	**10**	**ug/g**	**2850**			**13.3**	**50**	
Matrix Spike									
Lead	187		ug/L	114	145	70-130			QM-4X

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Paracel ID: 1914409

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Page 1 of 1

Client Name: MTE Consultants Inc	Project Reference: 45649-100
Contact Name: Michael VanRuyven	Quote #
Address: 1016 Sutton Drive, Unit A Burlington, Ontario	PO #
Telephone: 905-639-2552	Email Address: mvanruyven@mte85.com

Turnaround Time:
☑ 1 Day ☐ 3 Day
☐ 2 Day ☐ Regular
Date Required: _____

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: _____ ☐ Other: _____

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

Paracel Order Number: 1914409

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Lead in Paint						
1	LP01 - Green paint above ceilings	P			02/04/19	10am	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐
2							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments:

Method of Delivery: Purolator

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab: MC	Verified By:
Relinquished By (Print): Michael VanRuyven	Date/Time:	Date/Time: Apr 4/19 8:55	Date/Time:
Date/Time: April 3, 2019 3pm	Temperature: _____ °C	Temperature: _____ °C	pH Verified [ ] By: N/A

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Certificate of Analysis

MTE Consultants Inc. (Burlington)

1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8
Attn: Mike VanRuyven

Client PO:
Project: 45649-100
Custody:

Report Date: 3-May-2019
Order Date: 2-May-2019

Order #: 1918409

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

Paracel ID	Client ID
1918409-01	LP01 - Brown Paint Church Office
1918409-02	LP02 - Grey Paint NGEN Corridor
1918409-03	LP03 - Black Paint Youth Lounge
1918409-04	LP04 - Blue Paint Youth Lounge
1918409-05	LP05 - Beige Paint Foyer WR
1918409-06	LP06 - Cream Paint in Sanctuary
1918409-07	LP07 - White Paint Church Hall
1918409-08	LP08 - Yellow Paint Kitchen

Approved By:

Milan Ralitsch, PhD
Senior Technical Manager

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

Report Date: 03-May-2019
Order Date: 2-May-2019
Project Description: 45649-100

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	2-May-19	2-May-19

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

Report Date: 03-May-2019
Order Date: 2-May-2019
Project Description: 45649-100

Sample Results

Lead

Matrix: Paint
Sample Date: 30-Apr-19

Paracel ID	Client ID	Units	MDL	Result
1918409-01	LP01 - Brown Paint Church Office	ug/g	5	27
1918409-02	LP02 - Grey Paint NGEN Corridor	ug/g	5	18
1918409-03	LP03 - Black Paint Youth Lounge	ug/g	5	67
1918409-04	LP04 - Blue Paint Youth Lounge	ug/g	5	10
1918409-05	LP05 - Beige Paint Foyer WR	ug/g	5	22700
1918409-06	LP06 - Cream Paint in Sanctuary	ug/g	5	1610
1918409-07	LP07 - White Paint Church Hall	ug/g	5	17
1918409-08	LP08 - Yellow Paint Kitchen	ug/g	5	19

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	**834**	**5**	**ug/g**	**845**			**1.4**	**50**	
Matrix Spike									
Lead	85.1		ug/L	33.8	103	70-130			

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Paracel ID: 1918409

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Page 1 of 1

Client Name:	MTE Consultants Inc	Project Reference:	45649-100
Contact Name:	Michael VanRuyven	Quote #	
Address:	1016 Sutton Drive, Unit A Burlington, Ontario	PO #	
Telephone:	905-639-2552	Email Address:	mvanruyven@mte85.com

Turnaround Time:
☐ 1 Day ☐ 3 Day
☐ 2 Day ☑ Regular
Date Required: _____

Criteria: ☐ O. Reg. 153/04 (As Amended) Table __ ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: _____ ☐ Other: _____

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

Required Analyses

Paracel Order Number: 1918409

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	Lead in Paint						
1	LP01 - Brown paint church office	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
2	LP02 - Grey paint NGEN corridor	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
3	LP03 - Black Paint youth lounge	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
4	LP04 - Blue Paint youth lounge	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
5	LP05 - Beige paint foyer WR	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
6	LP06 - Cream paint in sanctuary	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
7	LP07 - White paint church hall	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
8	LP08 - Yellow paint in kitchen	P			30-04-19		☐	☐	☐	☐	☐	☐	☐	✔	☐	☐	☐	☐	☐	☐
9							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10							☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments: Test for PCBs in sealant? no sealant in this sample set.

Method of Delivery: Purolator.

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Michael VanRuyven	Date/Time: 05/02/19 8:40	Date/Time: 05/02/19 8:54	Date/Time: 05/02/19 9:00
Date/Time: April 30, 2019 3pm	Temperature: _____ °C	Temperature: _____ °C	pH Verified [ ] By: _____

APPENDIX C

PHOTOGRAPHIC LOG

Photographic Log for Designated Substance Assessment
New Vision United Church

Photograph No. 1 – The skim coat layer of plaster walls and ceilings throughout the Site is considered asbestos-containing.

Photograph No. 2 – Green paint above ceiling tiles in the Basement area is lead-containing.

Photograph No. 3 – Vinyl sheet flooring within the foyer washrooms is asbestos-contianing.

Photograph No. 4 – Beige paint in the foyer washrooms is lead-based.

Photograph No. 5 – Cream paint within the Sanctuary us lead-containing.

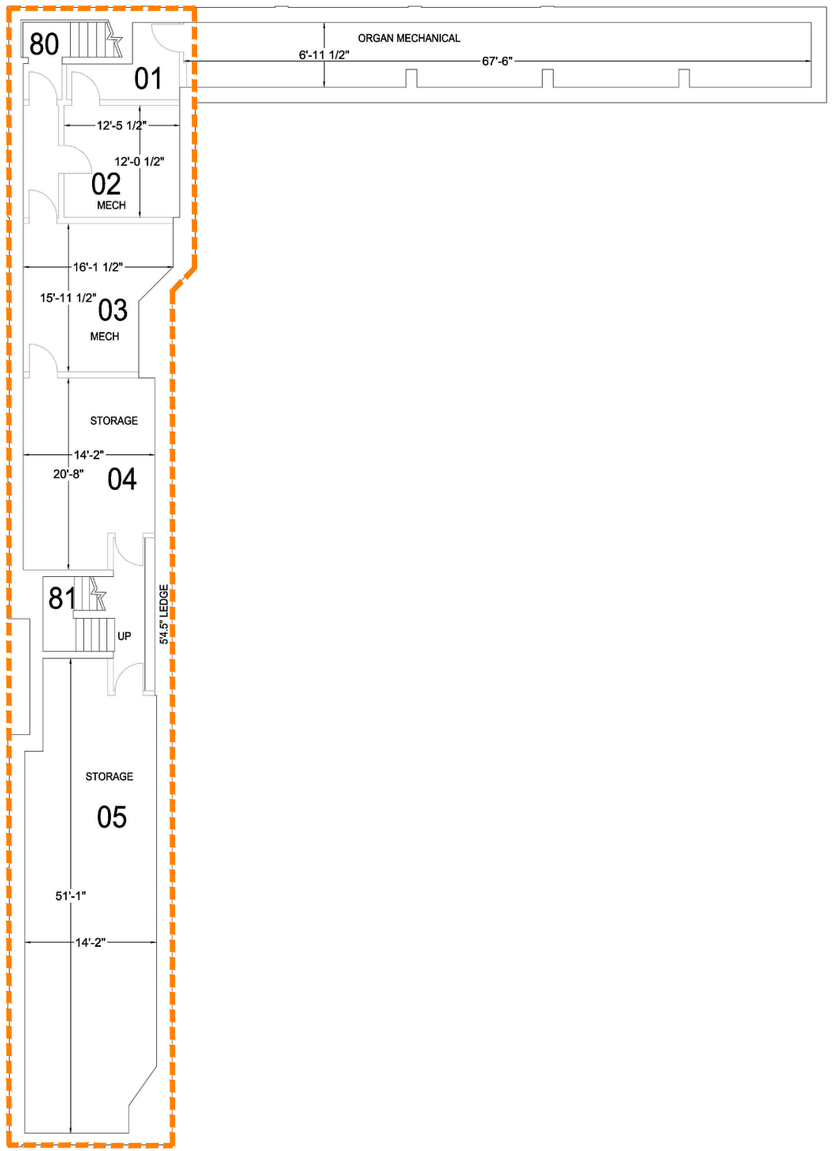
Photograph No. 6 – Solder joints on copper pipes are suspected of containing lead.

Photograph No. 7 – Fluorescent light tubes are suspected of containing mercury, and florescent light ballasts are suspected of containing PCBs.

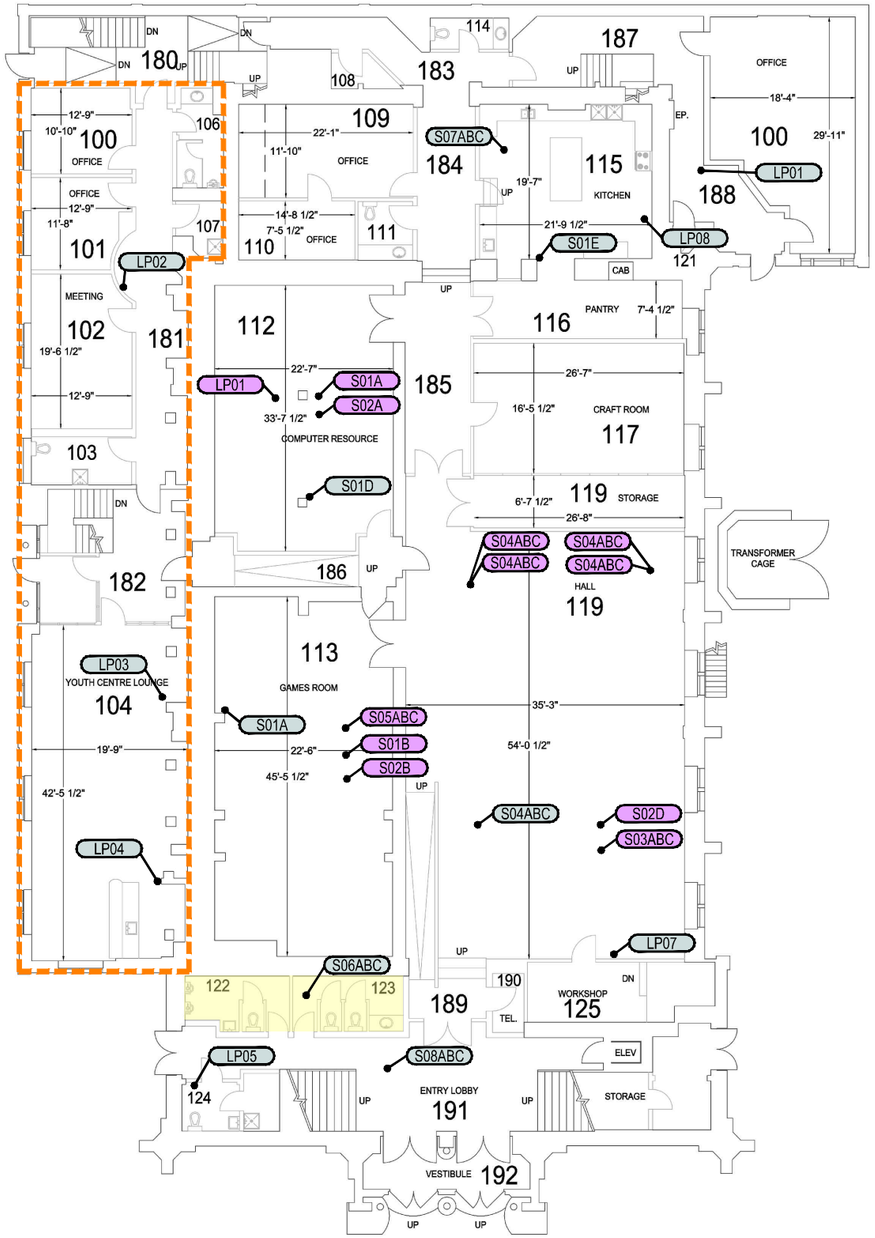
Photograph No. 8 – Refrigeration units in the Servery and the Kitchen are suspected of containing ODS's.

APPENDIX D

FIGURES



BASEMENT



GROUND FLOOR

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

- SM-1234 — Sample Location (April 2, 2019)
- SM-1234 — Sample Location (May 1, 2019)
- ACM Vinyl Sheet Flooring
- 1990s Addition

MTE

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CLIENT
NEW VISION UNITED CHURCH

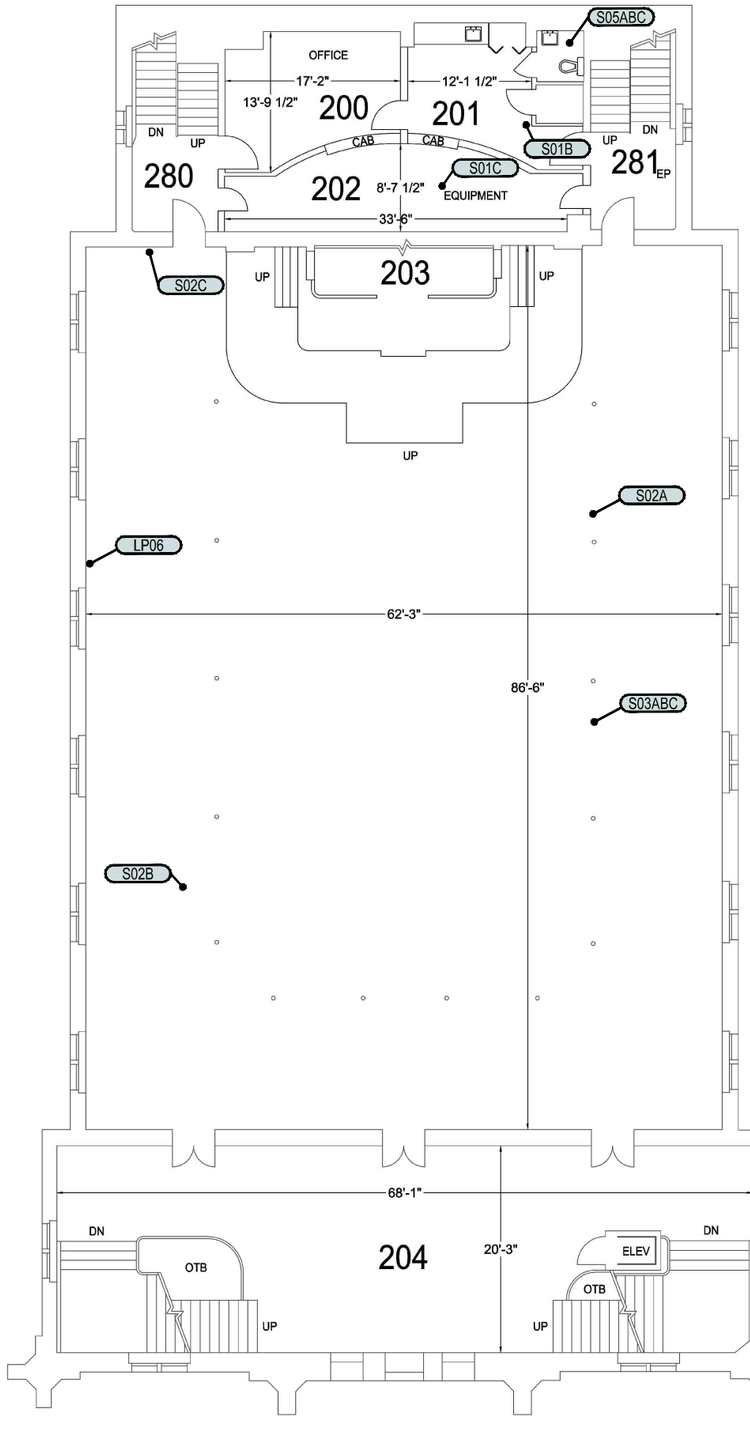
PROJECT
DESIGNATED SUBSTANCES ASSESSMENT

DRAWING
24 MAIN STREET WEST
HAMILTON, ONTARIO

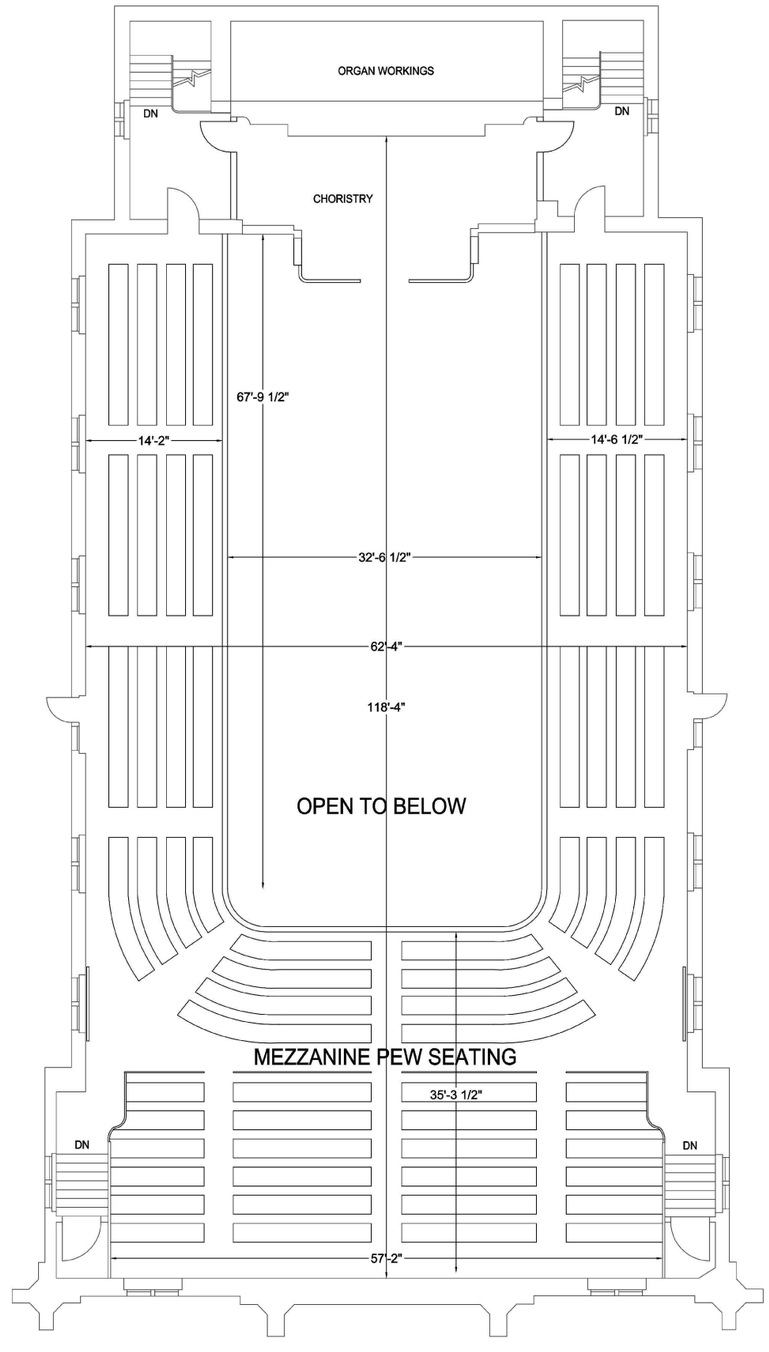
BASEMENT AND GROUND FLOOR

Project Manager	G. OAKES	Date	MAY 2019
Baseplan By	MTE	Project No.	45649-100
Figure By	TXS	Drawing No.	1.0
Scale	N.T.S.		

May 29, 2019 — 2:33 PM — Plotted By: tschneider
Project: 45649-100 CAD: P:\45649\100\45649-100-EV1.DWG



SANCTUARY



MEZZANINE

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

SM-1234 Sample Location (May 1, 2019)

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CLIENT
NEW VISION UNITED CHURCH

PROJECT
DESIGNATED SUBSTANCES ASSESSMENT

DRAWING
24 MAIN STREET WEST
HAMILTON, ONTARIO

SANCTUARY AND MEZZANINE

Project Manager	G. OAKES	Date	MAY 2019
Basepian By	MTE	Project No.	45649-100
Figure By	TXS	Drawing No.	1.1
Scale	N.T.S.		