WE-2024-01 – Rodney WPCP Upgrades

Date Issued: July 11, 2024, 11:00 AM

Addendum No. 1

No. of Addenda pages: 47

Attachments:

Designated Substances Survey

Mandatory Site Meeting

The mandatory site meeting will take place on July 16th, 2024, at 11:00AM.

Information

Not Applicable

Clarifications

All questions regarding the contract must be sent to the Contract Administrator to be answered in future addenda. A confirmation email will be sent to confirm receipt.

Revisions

Not Applicable

Additions

Not Applicable

Drawings

Not Applicable

Questions and Answers

Not Applicable

End of Addenda



HAZARDOUS MATERIALS SURVEY RODNEY WASTEWATER TREATMENT PLANT 22590 Pioneer Line Rodney, Ontario NOL 2C0

July 8th, 2024

Prepared for:

Mr. Lee Gosnell – Manager of Operations and Community Services Municipality of West Elgin 22413 Hoskins Line Rodney, ON NOL 2C0

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EXECUTIVE SUMMARY

T. Harris Environmental Management Inc. (THEM) was retained by the Municipality of West Elgin to conduct a Hazardous Materials Survey, including Designated Substances, Mould, Polychlorinated Biphenyls (PCBs) and Chlorofluorocarbons (CFCs), for the Rodney Wastewater Treatment Plant, located at 22590 Pioneer Line in Rodney, Ontario. The objective of this study was to determine whether any hazardous building materials, including Designated Substances, as defined under the Ontario Occupational Health and Safety Act, were present within the buildings located at the above noted address. The survey was conducted on June 27th, 2024.

Based on the investigation conducted by T. Harris Environmental Management, through available records, interviews and a site review, the following were identified:

Asbestos-containing materials (ACM) observed in the surveyed area are detailed in <u>Table I</u>.
 Asbestos-containing materials observed were assigned a Priority rating. Materials assigned Priority 1 are highly recommended to be removed, repaired or encapsulated. Materials identified as Priority 2 may remain in place until system upgrading or renovations. Materials assigned Priority 3 may remain in place until the building is demolished.

TABLE I
Summary of Asbestos-Containing Materials
Rodney Wastewater Treatment Plant
22590 Pioneer Line, Rodney, Ontario
June 27th, 2024

Location	Material	Quantity	Priority	Type(s) of Asbestos	Friable (Y/N)	Photo
Control Building A Exterior	Grey Window, Door & Vent Caulking	~ 6 windows, ~ 3 doors, ~ 2 vents	2	Chrysotile	No	P1

 A summary of the paints and their associated lead concentrations can be found in <u>Table II</u>. Lead was not found at a detectable level in any of the paints sampled. Lead may be present as a component in pipes and in solder used in pipe fittings.

TABLE II Summary of Lead Bulk Sampling Results Rodney Wastewater Treatment Plant 22590 Pioneer Line, Rodney, Ontario June 27th, 2024

Sample ID	Location	Sample Description	Lead Concentration by Weight (%)
LD-A-01	Control Building A Office (Location 6)	Cream Wall/Ceiling Paint	<0.0081
LD-B-01	Screen Building Exterior	Silver Door/Trim Paint	<0.0081
LD-C-01	Control Building B Alum Room (Location 12)	Grey Wall Paint	<0.0080
LD-D-01	Control Building B Exterior	Brown Door/Trim Paint	<0.0080
LD-E-01	Aerator Basin #1	Blue Paint on Pumps	<0.0080

- Silica may be present in building materials in two forms: i) amorphous-diatomaceous earth (commonly found in insulation materials); and ii) free crystalline (α-Quartz) (commonly found in ceiling tiles and gypsum board). Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the investigated areas.
- Liquid mercury may be present within wall mounted thermostatic control units. Mercury vapour is suspected to be present within fluorescent light tubes.
- Chlorofluorocarbons (CFCs) are organic compounds that contain carbon, chlorine, and fluorine atoms. These compounds are likely to be found as coolants in refrigeration and air conditioners which are suspected to be present within the building.

Based on the aforementioned findings for the survey conducted, THEM recommends the following:

Non-friable ACM assigned a Priority 1 must be removed and/or repaired immediately following applicable asbestos abatement procedures. Non-friable ACM assigned a Priority 2 can remain in place until major system upgrading, maintenance or demolition which could result in disturbance of this material. In the event the non-friable ACM is removed, Type 1 operations apply (provided that the material is wetted down and removed using non-powered handheld tools) as outlined in Ontario Regulation 278/05, Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations – made under the Ontario Occupational Health and Safety Act.



- Respiratory protection equipment worn by contractors conducting asbestos abatement activities should be selected based on Table 2 Respirators found in Ontario Regulation 278/05.
- In the event all ACM within the building is not removed, an asbestos management program must be implemented according to Ontario Regulation 278/05.
- Vinyl floor products were analyzed using the phase light microscopy (PLM) method of
 detection as required by Ontario Regulation 278/05. However, given the composition of
 vinyl floor products, the PLM analysis method is often prone to yielding false negative
 analysis results. Therefore, it may be prudent that the Transmission Electron Microscopy
 (TEM) analysis method (in addition to the PLM) be used to determine the asbestos
 content in the vinyl floor products.
- Prior to any renovations or demolition activities that may disturb materials identified to contain lead of any concentration, precautions must be taken as described in Ontario Regulation 213/91, Construction Projects made under the Occupational Health and Safety Act. This may include conducting an assessment of the potential exposure of airborne lead by a qualified person. Exposure to lead-containing materials is regulated under Ontario Regulation 490/09, Designated Substances made under the Occupational Health and Safety Act. Care must be taken to prevent lead-containing particles from becoming airborne during the disturbance of lead-containing surfaces (i.e., during renovation or demolition projects). All lead abatement work must follow procedures outlined in the guideline "Lead on Construction Projects", issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.
- Precautions must be taken to prevent mercury vapours becoming airborne during renovations or building demolition. Exposure to airborne mercury is regulated under Ontario Regulation 490/09, Designated Substances – made under the Occupational Health and Safety Act.
- All waste material must be handled and disposed of according to R.R.O. 1990, Reg. 347:
 General Waste Management, as amended made under the Ontario Environmental Protection Act. Lead and/or Mercury waste may be subject to Leachate Criteria (Schedule 4) of this regulation.
- Exposure to airborne silica is regulated under Ontario Regulation 490/09, *Designated Substances* made under the Occupational Health and Safety Act. All work being carried

with silica containing materials should be conducted following the guideline "Silica on Construction Projects", issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.

- At the time of removal or replacement of fluorescent light ballasts, the ballasts should be inspected for PCB content. All PCB materials must be handled and stored as outlined in R.R.O. 1990, Reg. 347: General Waste Management, as amended. In addition, requirements outlined in the federal regulation SOR/2008-273 made under the Canadian Environmental Protection Act, 1999 must be adhered to as well.
- All applicable regulations and/or industry standards should be adhered to prior to removal or repair of systems that are suspected to contain CFCs.
- Prior to performing construction, renovations or demolition, the Occupational Health and Safety Act requires an inventory of all Designated Substances to be submitted to the general contractor who in turn must submit the same list to all their subtrades. Submission of this report to all parties will satisfy this requirement.
- Building material(s) that are not detailed within this survey due to inaccessibility during
 the time of the survey and/or are uncovered during renovation/demolition activities,
 notably materials that are suspected to contain asbestos, should be properly assessed by
 qualified person prior to their disturbance.

This survey satisfies requirements of the Occupational Health and Safety Act with regards to the presence/absence of hazardous materials identified within this report. This executive summary is not to be used alone and the report should be reviewed in its entirety.

Should you have any questions or comments regarding this survey, please do not hesitate to contact our office.

Sincerely,

T. HARRIS ENVIRONMENTAL MANAGEMENT INC.

1.0 <u>INTRODUCTION</u>

T. Harris Environmental Management Inc. was retained by the Municipality of West Elgin to conduct a Hazardous Materials Survey, including Designated Substances, for the Rodney Wastewater Treatment Plant located at 22590 Pioneer Line in Rodney, Ontario. The survey was conducted on June 27th, 2024.

The objective of this survey was to determine whether hazardous materials, including Designated Substances, as defined under the Ontario Occupational Health and Safety Act, Mould, Polychlorinated Biphenyls (PCBs) and Chlorofluorocarbons (CFCs) were present within the buildings surveyed. The survey included a review of the entire buildings for the presence and extent of hazardous materials, evaluation of the type of hazardous materials and degree of possible exposure, and assessment of requirements for any further investigation or remedial action, if necessary.

Identification of suspect asbestos materials was performed by means of bulk sampling and laboratory analysis. Testing for lead in paint was conducted using bulk sampling. Other hazardous materials, if present, were identified by visual inspection only. These included mercury in gauges and light fixtures, polychlorinated biphenyls (PCBs) in coolant oils of transformers and fluorescent light fixture ballasts, and silica in cement. Recommendations based on our findings are made in Section 5.0.

This report documents our findings as noted during our site inspection. Individual assessments were made to identify Designated Substances and their condition, as well as requirements for special treatment such as control programs or specialized removal and disposal techniques.

2.0 ONTARIO REGULATIONS AND GUIDELINES FOR SURVEY

Ontario Regulation 490/09, *Designated Substances* – made under the Ontario Health and Safety Act, applies to controlling designated substances in the workplace. This regulation may not be all encompassing for each of the Designated Substances and other associated Ontario Regulations may apply.

The management and abatement of asbestos-containing materials must be conducted according to Ontario Regulation 278/05 amended by O. Reg. 450/19, *Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations —* made under the Occupational

Health and Safety Act. Asbestos-containing waste must be handled and disposed of according to R.R.O., 1990, Regulation 347: *General - Waste Management*.

In addition to the Ontario Regulation 490/09 noted above, the following guidelines were observed for this survey:

- <u>Lead on Construction Projects</u>, issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.
- <u>Silica on Construction Projects</u>, issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.

Polychlorinated biphenyls (PCBs) are not recognized as a Designated Substance, as outlined in the Ontario Occupational Health and Safety Act, however as selected materials were reviewed for PCB content during this survey the following legislation applies: R.R.O., 1990, Regulation 362: Waste Management - PCB's — made under the Environmental Protection Act and SOR/2008-273 — made under the Canadian Environmental Protection Act, 1999.

Applicable legislation and/or guidelines for other materials identified (not listed above) as part of the survey are included where applicable.

All waste materials are regulated by R.R.O., 1990, Regulation 347: *General - Waste Management*, as amended – made under the Ontario Environmental Protection Act.

3.0 SURVEY METHODOLOGY

Not all designated substances or suspect hazardous materials were sampled. Sampling was carried out only for those compounds that were known to be present or those deemed to have a likely source of origin in the buildings under study.

All sample analyses were performed by an independent laboratory and the Laboratory Certificates of Analysis attached in Appendix III. Materials similar in appearance or texture to other materials tested were considered to be of similar composition. When inaccessible areas such as behind walls and above plaster ceilings were encountered during the survey, inferences were drawn based upon findings in adjacent spaces. Other designated substances and listed hazardous materials, if present, were identified by observation only.

The survey, as proposed, included the inspection of all accessible areas specified by the client.

3.1 ASBESTOS-CONTAINING MATERIALS

Asbestos is a general name for several varieties of highly fibrous silicate materials. Commercially significant types include: Chrysotile, Amosite and Crocidolite. The combination of a variety of favourable characteristics made asbestos popular for wide industrial use, including: fibrous structure, low heat conductivity, high electrical resistance, chemical inertness, strength, flexibility and effectiveness as a reinforcing or binding agent when combined with cement or plastic.

Products with bound asbestos pose no danger of releasing airborne fibres unless cut, sawn, ground or sanded. One measure of the potential hazard of a product is its friability. The friability of asbestos containing materials (ACM) is a measure of the ease with which the material can be ground or pulverized by hand pressure. Knowledge of the friability of ACM may theoretically indicate the ease with which fibres can be released into the air.

The accredited survey inspector(s) were responsible for inspecting, assessing and recording the location, condition and type of all suspect friable and non-friable ACM in the project area. Each individual room and space was surveyed. Homogeneous sampling areas of ACM were determined. A homogeneous area is defined as an application of ACM that is uniform in colour, texture, identical in every respect, and is unlikely to consist of more than one type or formulation of material. Materials installed at different times, on different floors, or in special areas such as mechanical rooms are assigned to separate sampling areas.

3.1.1 Asbestos Bulk Sampling

Sampling of suspected asbestos-containing building materials observed within the surveyed area was conducted as per the requirements of Table 1 found within Ontario Regulation 278/05. A summary of the sample requirements can be found in <u>Table III</u> below.

TABLE III
Asbestos Bulk Sampling Requirements

Type of material	Size of area of homogeneous material	Minimum # of bulk material samples to be collected
Surfacing material, including without	<90 sq metres	3
limitation material that is applied to surfaces by spraying, by troweling or otherwise, such as acoustical plaster on ceilings and fireproofing materials on structural members	>90 sq metres but <450 sq. metres	5
	>450 sq metres	7
Thermal insulation, except as described in item 3	Any size	3
Thermal insulation patch	<2 linear metres or 0.5 sq metres	1
Other material	Any size	3

Preliminary identification of the samples was made using polarized light microscopy (PLM), with confirmation of presence and type of asbestos made by dispersion staining optical microscopy. This analytical procedure follows the U.S. Environmental Protection Agency Test Method EPA/600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials, June 1993. Laboratory Certificates of Analysis for this identification are given in Appendix III.

According to O. Reg. 278/05, asbestos-containing material means material that contains 0.5 percent or more asbestos by dry weight. If analysis establishes that a bulk material sample contains 0.5 percent or more asbestos by dry weight, then it is not necessary to analyze other bulk material samples taken from the same area of homogenous material, the entire area of homogenous material is deemed to be asbestos-containing material.

Destructive testing was not performed. Therefore, in the event asbestos-containing materials are discovered as part of the survey, inferences have been drawn for inaccessible spaces (i.e., above plaster ceilings with no access panels) based upon findings in adjacent spaces. Similarly, motors, blowers, electrical panels, etc., were not de-energized or disassembled to examine concealed conditions. Such items should be considered to have asbestos as a component until proven otherwise.

Boilers were frequently constructed (i.e., lined, bedded, etc.) with asbestos refractory materials. Demolition and/or renovations to existing boiler units which may elicit a disturbance of suspect ACM should necessitate prior investigation to determine for the presence of ACM. In addition, fire doors that may be present in the surveyed areas were not tested intrusively and therefore should be considered to contain ACM until proven otherwise. Further examples of such assumptions include: elevator brakes, roofing felts and mastics, caulking, high voltage wiring, mechanical packing and gaskets, and underground services or piping.

3.1.2 Assessment

Materials identified to contain asbestos were assessed on the relative possibility of fibre release into the air due to a combination of their condition and accessibility. Priorities have been established for remedial action based on these combinations, and are given below.

Priority 1 (One)

Asbestos-containing material highly recommended to be removed, repaired or encapsulated.

Priority 2 (Two)

Asbestos-containing material could remain in place until system upgrading or renovations are to occur.

Priority 3 (Three)

Asbestos-containing material could remain in place until eventual building demolition.

3.2 **LEAD-CONTAINING MATERIALS**

Paints/surface coatings observed in the surveyed areas were tested for lead content. Other building materials not tested for lead content (i.e., mortar, concrete) should be considered lead-containing until proven otherwise.

Currently in Ontario, there is no regulation that provides a definition of what the percent of lead in paint must be in order to be considered "lead-based paint". The Surface Coating Materials Regulations (SOR/2005-109) made under the Canada Consumer Product Safety Act specifies that the concentration of total lead present in a surface coating material must not be more than



600 mg/kg. The Surface Coatings Materials Regulations came into effect on April 19th, 2005 and was amended in November of 2010, which lowered the acceptable concentration of total lead present in a surface coating material to less than 90 mg/kg (SOR/2010-224). This lead content applies to any paint and/or surface coatings of products advertised, sold or imported into Canada. Coatings applied to furniture, pencils, artists' brushes, toys and articles that are intended for children would fall under the jurisdiction of this regulation. However, these levels are not specifically intended to determine what constitutes a "lead-based paint", it is merely a regulation to protect consumers of coated materials. Therefore, this regulation does not apply to construction projects where lead-based coatings may be disturbed during the course of renovations or construction.

To date, there is no simple correlation between the concentration of lead in paints/surface coatings and the resulting airborne lead levels that may be emitted if the coated material was to be disturbed or removed. However, the Environmental Abatement Council of Canada (EACC) "Lead Guideline for Construction, Renovation, Maintenance or Repair", published October 2014 (herein referred to as 'EACC Guideline'), outlines "virtually safe" lead levels for paints or surface coatings. Paints or coatings containing less than or equal to 0.1% lead by weight¹ are considered low-level lead paints or coatings. If these paints or coatings are disturbed in a manner, which uses normal dust control procedures, and does not exceed the particulate not otherwise specified (PNOS) time-weighted average (TWA) of 0.05 mg/m³ set in Ontario Regulation 490/09, then worker protection from the inhalation of lead is not required. Projects that meet these guidelines must still adhere to general health and safety precautions, such as prohibiting eating, smoking, drinking or chewing gum in the work area. These projects must also implement dust suppression techniques and provide facilities for workers to wash their hands and face. Additionally, the Occupational Health and Safety branch of the Ministry of Labour (MOL) provides classifications of the types of specific lead operations, which are based on presumed airborne lead concentrations to which the worker will be exposed. The classifications are provided in the MOL publication, "Guideline: Lead on Construction Projects", published in September 2004 and revised in April 2011 (herein referred to as 'MOL Guideline'). The levels of airborne lead expected to be present in a work area is related to the types of work operations being used to disturb or remove the coatings; it is not a function of the percentage of lead within the coating. Based on this MOL Guideline, all paints/surface coatings are to be considered lead-containing unless they are tested and contain undetectable lead concentrations.

¹ WHMIS reporting limit for lead in a safety data sheet or material safety data sheet.

Lead is also suspected to be a component in solder on plumbing fixtures throughout the building. Representative samples of solder joints suspected to contain lead were not collected. Other suspect lead-containing materials such as lead sheeting, conduit, pipes and lead-calcium battery plates were not sampled during this investigation, but were noted where applicable.

3.2.1 Bulk Sampling for Lead in Paints

To verify lead content in paints, representative bulk samples of paints were retrieved for laboratory analysis for lead content. Paint samples were scraped down to the building base structure, with all possible layers present, then submitted to an independent laboratory. Samples were treated with a dilute nitric acid sample digestion prior to filtration. Analysis utilized for lead detection in filtered samples was Flame Atomic Absorption Spectroscopy (F.A.A.S.).

3.3 SILICA-CONTAINING MATERIALS

Silica occurs naturally as crystalline or amorphous material. Crystalline silica is significantly more toxic than amorphous silica.

Silica may be present in the project area in two forms: i) amorphous-diatomaceous earth in pipe fittings and other insulation materials; and ii) free crystalline (α -Quartz) in ceiling tiles, concrete, cement, brick, ceramic tiles, terra cotta block and hard plaster finishes. Testing for silica in these materials was not conducted, but its presence was noted.

3.4 MERCURY-CONTAINING MATERIALS

Mercury may be a component in paints and can also be present as a liquid in thermometers, thermostats, and other mechanical equipment switches. Mercury vapour is present in fluorescent lamps.

3.5 **ARESENIC-CONTAINING MATERIALS**

Arsenic is used in metallurgy for hardening copper, lead and alloys; in pigment production, in the manufacture of certain types of glass, in insecticides and fungicides and in rodent poisons, as a by-product in the smelting of copper ores, and as a dopant material in semiconductor manufacturing.

3.6 **ACRYLONITRILE**

Acrylonitrile (ACN) (also known as vinyl cyanide) is an explosive, flammable liquid used in the manufacture of acrylic fibres, rubber-like materials and pesticide fumigants.

3.7 BENZENE

Benzene, or Benzol, is a colourless liquid. It is used as an intermediate in the production of styrene, phenol, cyclohexane, and other organic chemicals, in the manufacture of detergents, pesticides, solvents, and paint removers. It is also found in gasoline.

3.8 COKE OVEN EMISSIONS

Not applicable to this project area.

3.9 ETHYLENE OXIDE

Ethylene oxide is a colourless gas liquefying below 12 degrees Celsius. It is used generally as a fumigant and sterilizing agent for medical equipment.

3.10 ISOCYANATES

Isocyanates (HDI, MDI and TDI) are used in the production of polyurethane and as an elastomer in casting compounds, mastic, and textile coatings (IPDI).

3.11 VINYL CHLORIDE

Vinyl Chloride, also known as chloroethylene, is a colourless gas but is handled as a liquid under pressure. It is used in the production of polyvinyl chloride resins and in organic synthesis.

3.12 NON-DESIGNATED SUBSTANCES

3.12.1 <u>PCB-containing Materials</u>

PCBs are not recognized as a Designated Substance, as outlined in the Ontario Occupational Health and Safety Act. However, a review of a number of representative and accessible fluorescent light ballasts suspected to contain PCBs were included in the survey. In addition, accessible building hydraulic equipment (i.e., elevators/lifts) or electrical transformers observed

during the survey were visually reviewed. No sampling of materials for PCB content was conducted as a part of this survey. In addition, no other materials were reviewed/inspected as a part of this survey unless specified by the client. Thus, the following materials should be assumed, if present onsite, to contain PCBs until proven otherwise: cable insulation, thermal insulation materials (i.e., foam, felt), adhesives/tapes, plastics, caulking, lead-based paints and, various types of electrical equipment (i.e., voltage regulators, switches, bushings, electromagnets).

Polychlorinated biphenyl-containing ballasts reviewed were identified by model number, serial number, and date code, as listed in *Environment of Canada Identification of Lamp Ballasts Containing PCBs - Report EPS 2/CC/2 (revised), August 1991*.

3.12.2 <u>Mould</u>

Fungi, also called mould or mildew, are microbiological organisms that can live and reproduce and potentially cause health problems in indoor environments. They are chlorophyll-lacking plant-like organisms that are unicellular (e.g., yeast) or grow in a multinucleate mass (e.g., bread mould), subsist on decomposed organic matter or nutrition from living hosts, and reproduce by production of spores 3 to 200 μ m in size. Mould growth inside buildings is due to excess moisture caused by leakages, condensation, or capillary movement of water into the building. They will generally not occur if materials are kept dry.

The presence of mould spores in indoor environments may not be significant in terms of the causation of fungal infestation since most micro-organism contamination does not become a problem until it becomes disturbed and is distributed into the ventilation system or air within the building. In other words, there may be little hazard if micro-organisms do not multiply or do not accumulate to harmful levels, if there is no means for micro-organisms to become airborne, or, if aerosolized micro-organisms do not reach susceptible receptors.

Fungi or moulds which are typically found on building materials that have become damaged due to moisture problems can cause or exacerbate allergic type symptoms in occupants who have a history of hypersensitivity diseases (e.g., asthma). Thus, people suffering from respiratory disorders or severe allergies may be at greater risk for developing health problems associated with exposures to fungi found in water damaged areas. Such people may need to be removed from the affected areas until remediation and clearance testing, if required, is completed. However, any decisions regarding medical removal must be based on recommendations made by an occupational medicine specialist trained in symptomatology related to this type of exposure.

Canada (EACC) Mould Abatement Guidelines 2015, Edition 3".

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In order to define risk for areas that are suspected or confirmed to be contaminated with mould, the extent of water damage, and/or visible mould growth on building materials must be considered. THEM recommends the following criteria presented in <u>Table IV</u> for determining risk levels (hazard categories) and associated remediation protocols. This criterion is based on the "Institute of Inspection Cleaning and Restoration Certification (IICRC) S520 Standard and

Reference for Professional Mould Remediation" and "Environmental Abatement Council of

TABLE IV
Recommended Water Damage/Mould Risk Management Levels

———	Recommended Water Damage/ Would hisk Wanagement Levels			
Hazard Category	Mould/Water Damage Present in Accessible Areas, Based on Visual Inspection ¹ and/or Moisture Measurements	Summary of General Recommended Remediation Requirements		
0	No visible signs of mould growth, no evidence of category 2 or 3 water damage and no health complaints.	No remediation required; however, in some situations structural drying may be required.		
1	Small Areas (Source Containment)	 Work can be conducted by in-house staff trained in water damage/mould remedial techniques or by qualified environmental contractor. Personnel conducting the work should be wearing the appropriate PPE. No critical barriers required. Contaminated building materials can be contained with polyethylene sheeting and duct tape and removed. 		
2	Moderate Areas (Local Containment)	 Work should be conducted by a qualified environmental contractor. Personnel conducting the work should be wearing the appropriate PPE. A polyethylene enclosure should be erected to isolate mould contaminated materials. A decontamination chamber may be required. The following procedures should be followed during cleaning activities: HEPA vacuum, clean with a solution that contains a surfactant, HEPA vacuum, clean with a solution that contains a surfactant and a final HEPA vacuum. A disinfectant (that at minimum has a Health Canada DIN Number) should be applied to the remediation area following cleaning. 		

Hazard Category	Mould/Water Damage Present in Accessible Areas, Based on Visual Inspection ¹ and/or Moisture Measurements	Summary of General Recommended Remediation Requirements
3	Extensive Areas (Full Scale Containment)	 Work should be conducted by a qualified environmental contractor. Personnel conducting the work should be wearing the appropriate PPE. The mould contaminated room and/or building section should be isolated with critical barriers. Building materials within the remediation area that cannot be cleaned effectively must be sealed off with polyethylene barriers. A decontamination unit is required. The following procedures should be followed during cleaning activities: HEPA vacuum, clean with a solution that contains a surfactant, HEPA vacuum, clean with a solution that contains a surfactant and a final HEPA vacuum. A disinfectant (that at minimum has a Health Canada DIN Number) should be applied to the remediation area following cleaning.

Note 1: May or may not include destructive testing.

3.12.3 Ozone Depleting Substances

Ozone depleting substances such as fluorocarbons are commonly used as cooling agents in refrigeration equipment such as ice makers, refrigerators, chilled water drinking fountains, compressors and air conditioners. Commercial chlorofluorocarbon (CFC) production began with R-12 in 1931, R-11 in 1932, R-114 in 1933 and R-113 in 1934. The first hydrochlorofluorocarbon (HCFC) refrigerant, R-22 was produced in 1936. By 1963, these five products accounted for 98% of the total production of the organic fluorine industry.

Almost 50 years passed between the introduction of CFCs and recognition of their harm to the environment when released to the atmosphere. Specific concerns are related to their depletion of stratospheric ozone and to possible climate change by their action as greenhouse gases. The high stability of CFCs enables them to deliver ozone-depleting chlorine to the stratosphere.

The project area was visually inspected for refrigeration equipment and where possible, fluorocarbon content was determined by looking at appliance tags.

4.0 <u>FINDINGS</u>

The following includes observations for any hazardous materials identified within the area surveyed. The survey focused on building materials and as such there may be Designated Substances in equipment that was present within the surveyed area.

4.1 ASBESTOS

Samples of suspect ACMs were collected at various locations throughout the surveyed area. The samples were submitted to EMSL Canada for the determination of asbestos content using the polarized light microscopy (PLM) method of detection. Laboratory Certificates of Analysis detailing results of bulk samples collected during this assessment are attached in Appendix III of this report with results summarized in <u>Table V</u> below. Samples found to be asbestos-containing are shaded.

TABLE V
Summary of Asbestos Bulk Sampling Results
Rodney Wastewater Treatment Plant
22590 Pioneer Line, Rodney, Ontario
June 27th, 2024

Sample ID	Location	Description	Asbestos Content		
Caulk-A-01	Control Building A Exterior	Grey Window, Door & Vent Caulking	1% Chrysotile		
Caulk-A-02	Control Building A Exterior	Grey Window, Door & Vent Caulking	ANR		
Caulk-A-03	Control Building A Exterior	Grey Window, Door & Vent Caulking	ANR		
Caulk-B-01	Screen Building Exterior	White Door & Vent Caulking	None Detected		
Caulk-B-02	Screen Building Exterior	White Door & Vent Caulking	None Detected		
Caulk-B-03	Screen Building Exterior	White Door & Vent Caulking	None Detected		
Caulk-C-01	Control Building B Exterior	White Door & Vent Caulking	None Detected		
Caulk-C-02	Control Building B Exterior	White Door & Vent Caulking	None Detected		
Caulk-C-03	Control Building B Exterior	White Door & Vent Caulking	None Detected		

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1-888-ASK-THEM

Sample ID	Location	Description	Asbestos Content
Caulk-D-01	Aerator Basin #1	White Caulking on Pump Shed	None Detected
Caulk-D-02	Aerator Basin #1	White Caulking on Pump Shed	None Detected
Caulk-D-03	Aerator Basin #1	White Caulking on Pump Shed	None Detected
Caulk-E-01	Aerator Basin #1	Black Pipe Caulking	None Detected
Caulk-E-02	Aerator Basin #1	Black Pipe Caulking	None Detected
Caulk-E-03	Aerator Basin #1	Black Pipe Caulking	None Detected
DJC-A-01	Control Building A Laboratory (Location 2)	White Drywall Joint Compound	None Detected
DJC-A-02	Control Building A Laboratory (Location 2)	White Drywall Joint Compound	None Detected
DJC-A-03	Control Building A Office (Location 6)	White Drywall Joint Compound	None Detected
ExpTar-A-01	Aerator Basin #2	Black Expansion Joint Tar	None Detected
ExpTar-A-02	Aerator Basin #2	Black Expansion Joint Tar	None Detected
ExpTar-A-03	Aerator Basin #2	Black Expansion Joint Tar	None Detected
Ins-A-01	Clarifier Exterior	Fibrous Exterior Insulation	None Detected
Ins-A-02	Clarifier Exterior	Fibrous Exterior Insulation	None Detected
Ins-A-03	Clarifier Exterior	Fibrous Exterior Insulation	None Detected
Mortar-A-01	Control Building A Washroom (Location 3)	Grey Ceramic Floor Tile Thinset Mortar	None Detected
Mortar-A-02	Control Building A Washroom (Location 3)	Grey Ceramic Floor Tile Thinset Mortar	None Detected
Mortar-A-03	Control Building A Washroom (Location 3)	Grey Ceramic Floor Tile Thinset Mortar	None Detected

Sample ID	Location	Description	Asbestos Content
Mortar-B-01	Control Building A Washroom (Location 3)	White Ceramic Wall Tile Thinset Mortar	None Detected
Mortar-B-02	Control Building A Washroom (Location 3)	White Ceramic Wall Tile Thinset Mortar	None Detected
Mortar-B-03	Control Building A Washroom (Location 3)	White Ceramic Wall Tile Thinset Mortar	None Detected
D	Care an Duilding Doof	Black Roofing Tar	None Detected
RoofTar-A-01	Screen Building Roof	Black Felt	None Detected
D FT A 02	Cara an Davildina Da of	Black Roofing Tar	None Detected
RoofTar-A-02	Screen Building Roof	Black Felt	None Detected
	6 5 11 5 6	Black Roofing Tar	None Detected
RoofTar-A-03	Screen Building Roof	Black Felt	None Detected
TankIns-A-01	Alum Tank (Location 11)	White Fibrous Tank Insulation	None Detected
TankIns-A-02	Alum Tank (Location 11)	White Fibrous Tank Insulation	None Detected
TankIns-A-03	Alum Tank (Location 11)	White Fibrous Tank Insulation	None Detected
VFT-A-01	Control Building A Laboratory	Beige 12" Vinyl Floor Tile	None Detected
VF1-A-U1	(Location 2)	Black Mastic	None Detected
VET A 02	Control Building A Laboratory	Beige 12" Vinyl Floor Tile	None Detected
VFT-A-02	(Location 2)	Black Mastic	None Detected
VET A 02	Control Building A Laboratory	Beige 12" Vinyl Floor Tile	None Detected
VFT-A-03	(Location 2)	Black Mastic	None Detected

ANR – Analysis Not Required – Material known to be asbestos-containing.

The following building materials (if present) were investigated for asbestos content. Representative samples were collected of suspect asbestos-containing materials and analyzed for asbestos content using the PLM method of detection, unless otherwise noted. Results of analysis are summarized in <u>Table V</u> with Laboratory Certificates of Analysis presented in Appendix III. For information regarding the specific location and condition of asbestos-containing materials, refer to <u>Table VII</u> and the Floor Plans presented in Appendix II.

4.1.1 Fireproofing

No fireproofing was observed within the surveyed buildings.

4.1.2 Texture Finishes

No texture finishes were observed within the surveyed buildings.

4.1.3 Mechanical Insulation

No suspect asbestos-containing linear pipe insulation, pipe fitting insulation or duct insulation was observed within the surveyed buildings.

4.1.4 Plaster

No plaster was observed within the surveyed buildings.

4.1.5 Ceiling Tiles

No ceiling tiles were observed within the surveyed buildings.

4.1.6 Vinyl Floor Tiles

Suspect asbestos-containing beige 12" vinyl floor tiles were observed throughout Control Building A. Samples VFT-A-01/02/03 were collected. No asbestos was detected in the samples.

4.1.7 Vinyl Sheet Flooring

No vinyl sheet flooring was observed within the surveyed buildings.

4.1.8 <u>Drywall Joint Compound</u>

Gypsum board walls and ceilings, with suspect asbestos-containing drywall joint compound applied, were observed throughout Control Building A. Samples DJC-A-01/02/03 were collected. No asbestos was detected in the samples.

4.1.9 Transite

No suspect asbestos-containing Transite products were observed within the surveyed buildings.

4.1.10 Vermiculite

No vermiculite insulation was observed within the surveyed buildings.

4.1.11 *Caulking*

Five (5) types of suspect asbestos-containing caulking were observed throughout the surveyed buildings. Samples were collected as follows:

- Samples Caulk-A-01/02/03 were collected of grey window, door and vent caulking from the exterior of Control Building A. The caulking was found to contain 1% Chrysotile asbestos.
- Samples Caulk-B-01/02/03 were collected of white door and vent caulking from the exterior of the Screen Building. No asbestos was detected in the samples.
- Samples Caulk-C-01/02/03 were collected of white door and vent caulking from the exterior of Control Building B. No asbestos was detected in the samples.
- Samples Caulk-D-01/02/03 were collected of white caulking on the pump shed associated with the Aerator Basins. No asbestos was detected in the samples.
- Samples Caulk-E-01/02/03 were collected of black caulking on piping associated with Aerator Basin #1. No asbestos was detected in the samples.

Asbestos-containing caulking is a non-friable material.

4.1.12 Roofing Materials

Samples RoofTar-A-01/02/03 were collected of black roofing tar from the roof of the Screen Building. A black tar layer and black felt layer were analyzed. No asbestos was detected in the samples.

Window and door caulking as well as roofing materials such as shingles on sloped roofs and felt and sealers on flat roofs may contain asbestos. These items are typically not sampled as it may damage the integrity of the materials, resulting in leaks. It is normal practice during the tender process to request alternative pricing in the event that the roofing material is found to contain asbestos. These items should be tested for the presence of asbestos immediately prior to

demolition of roofing or other building components to minimize potential damage to structures below.

4.1.13 Other

Tank Insulation

Suspect asbestos-containing white fibrous insulation was observed on the exterior of the Alum Tank. Samples TankIns-A-01/02/03 were collected. No asbestos was detected in the samples.

Clarifier Insulation

Suspect asbestos-containing white fibrous insulation was observed on the exterior of the Clarifier. Samples Ins-A-01/02/03 were collected. No asbestos was detected in the samples.

Expansion Joint Tar

Suspect asbestos-containing black tar was observed in expansion joints on the exterior of the Aerator Basins. Samples ExpTar-A-01/02/03 were collected. No asbestos was detected in the samples.

4.2 **LEAD**

Five (5) samples of suspect lead-based paint were collected from various locations. The samples were submitted to an independent laboratory, EMSL Canada Inc., for analysis. Results of the laboratory analysis are listed in <u>Table VI</u> below. The Laboratory Certificate of Analysis is attached in Appendix III.

TABLE VI
Summary of Lead Bulk Sampling Results
Rodney Wastewater Treatment Plant
22590 Pioneer Line, Rodney, Ontario
June 27th, 2024

Sample ID	Location	Sample Description	Lead Concentration by Weight (%)
LD-A-01	Control Building A Office (Location 6)	Cream Wall/Ceiling Paint	<0.0081
LD-B-01	Screen Building Exterior	Silver Door/Trim Paint	<0.0081

Sample ID	Location	Sample Description	Lead Concentration by Weight (%)
LD-C-01	Control Building B Alum Room (Location 12)	Grey Wall Paint	<0.0080
LD-D-01	Control Building B Exterior	Brown Door/Trim Paint	<0.0080
LD-E-01	Aerator Basin #1	Blue Paint on Pumps	<0.0080

Lead was not found at a detectable level in any of the paints sampled. Lead may also be present as a component in pipes and in solder used in pipe fittings.

4.3 SILICA

Silica may be present in the building in insulation materials. Free crystalline silica (α -Quartz) may be a component in ceiling tiles and gypsum board. Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the building.

4.4 MERCURY

Liquid mercury may be present within wall mounted thermostatic control units. Fluorescent light tubes identified within the building are suspected to contain mercury vapour.

4.5 **ARSENIC**

No source was identified.

4.6 ACRYLONITRILE

No source was identified.

4.7 BENZENE

No source was identified.

4.8 **COKE OVEN EMISSIONS**

Not applicable for the building.

4.9 ETHYLENE OXIDE

No source was identified.

4.10 **ISOCYANATES**

No source was identified.

4.11 VINYL CHLORIDE

No source was identified.

4.12 NON-DESIGNATED SUBSTANCES

4.12.1 PCB

At the time of removal or replacement of fluorescent light ballasts, the ballasts should be inspected for PCB content. All PCB materials must be handled and stored as outlined in the Revised Regulation of Ontario 362/90. In addition, requirements outlined in the federal regulation SOR/2008-273 — made under the Canadian Environmental Protection Act, 1999 must be adhered to as well.

No suspect PCB-containing transformers were noted in the areas of the building under study.

4.12.2 **Mould**

No visible mould or water damage was observed within the surveyed buildings.

4.12.3 Ozone Depleting Substances

Chlorofluorocarbons (CFCs) are organic compounds that contain carbon, chlorine, and fluorine atoms. These compounds are likely to be found as coolants in refrigeration and air conditioners which are suspected to be present within the buildings.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following summarizes hazardous building materials identified within the surveyed area.

5.1 ASBESTOS

Asbestos-containing materials observed in the surveyed area are detailed in the <u>Table VII</u>. Asbestos materials observed were assigned a Priority rating. Materials assigned Priority 1 are highly recommended to be removed, repaired or encapsulated. Materials identified as Priority 2 may remain in place until system upgrading or renovations. Materials assigned Priority 3 may remain in place until the building is demolished.

TABLE VII Summary of Asbestos-Containing Materials Rodney Wastewater Treatment Plant 22590 Pioneer Line, Rodney, Ontario June 27th, 2024

Location	Material	Quantity	Priority	Type(s) of Asbestos	Friable (Y/N)	Photo
Control Building A Exterior	Grey Window, Door & Vent Caulking	~ 6 windows, ~ 3 doors, ~ 2 vents	2	Chrysotile	No	P1

Non-friable ACM assigned a Priority 1 must be removed and/or repaired immediately following applicable asbestos abatement procedures. Non-friable ACM assigned a Priority 2 can remain in place until major system upgrading, maintenance or demolition which could result in disturbance of this material. In the event the non-friable ACM is removed, Type 1 operations apply (provided that the material is wetted down and removed using non-powered handheld tools) as outlined in Ontario Regulation 278/05, Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations — made under the Ontario Occupational Health and Safety Act.

Respiratory protection equipment worn by contractors conducting asbestos abatement activities should be selected based on Table 2 Respirators found in Ontario Regulation 278/05.

In the event all ACM within the building is not removed, an asbestos management program must be implemented according to Ontario Regulation 278/05.

Vinyl floor products were analyzed using the phase light microscopy (PLM) method of detection as required by Ontario Regulation 278/05. However, given the composition of vinyl floor products, the PLM analysis method is often prone to yielding false negative analysis results. Therefore, it may be prudent that the Transmission Electron Microscopy (TEM) analysis method (in addition to the PLM) be used to determine the asbestos content in the vinyl floor products.

5.2 <u>LEAD</u>

Ontario Regulation 490/09, as amended by O. Reg. 189/19, *Designated Substances* – made under OHSA states that airborne levels of lead particles should not exceed 0.05 mg/m³. Any demolition or stripping work should be performed under controlled conditions according to the Ontario Ministry of Labour guideline "*Lead on Construction Projects*", dated April 2011.

The disposal of construction waste containing lead is controlled by Ontario Regulation 347, *General Waste Management* – made under the Ontario Environmental Protection Act. Leachate tests for lead in construction waste must not exceed 5 mg/L in order to be disposed of at a local landfill without treatment.

5.3 SILICA

Silica may be present in building materials in two forms: i) amorphous-diatomaceous earth (commonly found in insulation materials); and ii) free crystalline (α -Quartz) (commonly found in ceiling tiles and gypsum board). Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the investigated areas.

Precautions must be taken to prevent silica-containing particles from becoming airborne during the disturbance of silica-containing surfaces, such as during renovation or demolition projects. Exposure to airborne silica is regulated under Ontario Regulation 490/09, *Designated Substances* – made under the Occupational Health and Safety Act. All work being carried out with silica-containing materials should be conducted following the guideline "Silica on Construction *Projects*", issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.

5.4 MERCURY

Liquid mercury may be present within wall mounted thermostatic control units. Mercury vapour is present in tubes of fluorescent light fixtures. If these tubes are removed, they should be disposed of properly or recycled.

Precautions must be taken to prevent mercury vapours from becoming airborne during building demolition. Exposure to airborne mercury is regulated under Ontario Regulation 490/09, *Designated Substances* – made under the Occupational Health and Safety Act.

5.5 NON-DESIGNATED SUBSTANCES

5.5.1 PCB

At the time of removal or replacement of fluorescent light ballasts, the ballasts should be inspected for PCB content. All PCB materials must be handled and stored as outlined in the Revised Regulation of Ontario 362/90. In addition, requirements outlined in the federal regulation SOR/2008-273 – made under the Canadian Environmental Protection Act, 1999 must be adhered to as well.

Proper removal, handling and storage of PCB-containing materials must follow Ontario Regulation 362, as amended by 232/11, *Waste Management - PCBs* and Ontario Regulation 347, *General Waste Management*, as well as Federal Regulations SOR/2008-27, *PCB Regulations* and SOR/97-109, *PCB Waste Export Regulations* — made under the Canadian Environmental Protection Act.

Ontario Regulation 347 designates PCB waste (containing PCBs at a concentration of more than fifty parts per million (ppm) by weight) as a hazardous waste and states that no person shall dispose of PCB waste by land disposal. In Ontario, the Ministry of Environment (MOE) puts the onus on the owner to perform a leachate test as per Leachate Criteria Testing (Schedule 4) of Ontario Regulation 347, on all waste that may be hazardous and in turn handle the waste according to the test results. Leachate tests for PCBs must not exceed 0.3 mg/L (TCLP) in order to be disposed of at a local landfill without treatment.

Releasing PCBs into the environment is prohibited under the Canadian Environmental Protection Act. This prohibition applies to all PCBs, without exception, at all times. The prohibition on release applies to all quantities at a concentration of 2 mg/kg or more for liquids and 50 mg/kg or more

for solids. The mixing or diluting of PCBs or products containing PCBs with any other product is prohibited with any other product except to destroy the PCBs or recover them to destroy them in an authorized facility.

5.5.2 Ozone Depleting Substances

Chlorofluorocarbons (CFCs) are organic compounds that contain carbon, chlorine, and fluorine atoms. These compounds are likely to be found as coolants in refrigeration and air conditioners which are suspected to be present within the building. All applicable regulations and/or industry standards should be adhered to prior to removal or repair of systems that are suspected to contain CFCs.

5.6 GENERAL

Prior to performing construction, renovations or demolition, the Occupational Health and Safety Act requires an inventory of all Designated Substances to be submitted to the general contractor who in turn must submit the same list to all their subtrades. Submission of this report to all parties will satisfy this requirement.

All waste material must be handled and disposed of according to the Revised Regulation of Ontario 347, as amended – made under the Environmental Protection Act. In the event lead and/or Mercury waste may be generated as part of renovation or demolition activities, the waste may be subject to Leachate Criteria (Schedule 4) of this regulation.

Building material(s) that are not detailed within this survey due to inaccessibility during the time of the survey and/or are uncovered during renovation/demolition activities, notably materials that are suspected to contain asbestos, should be properly assessed by qualified person prior to their disturbance.

6.0 <u>LIMITATIONS</u>

In this statement of limitations, the "Client" refers to the persons or entities to whom this report is addressed. "THEM" refers to T. Harris Environmental Management Inc. The "Contract" refers to any general, or project-specific written agreement, including project-specific scope of work documents, executed between THEM and the Client pertaining to the subject matter of this report.

This report is subject to the limitations set out below and any other limitations set out in the body of this report or in the Contract between THEM and the Client.

The investigation and assessment described in this report were conducted in accordance with the Contract agreed upon by the Client in a manner consistent with a reasonable level of care and skill normally exercised by members of the occupational hygiene consulting profession currently practising under similar conditions in the Province of Ontario and observing the code of ethics of the Canadian Registration Board of Occupational Hygiene (CRBOH) and the American Board of Industrial Hygiene (ABIH).

In preparing this report, THEM has relied on information provided by others, including without limitation, information concerning the history and operation of the site, and test results and analyses of other consultants, independent laboratories, or testing services. Except as expressly stated in this report, THEM has not made any independent verification of such information. Findings cannot be extended to portions of the site, which were unavailable for direct observation.

The assessment in this report has been made in the context of regulations which were in force and effect at the time of the assessment and which are specified in this report. The assessment did not take into account any regulations, which were not in effect at the date of the assessments, or any guideline or standard not specified in this report. Regulatory standards do not exist for all materials of a potentially hazardous nature.

The collection of any samples at the site (including the location of samples and the analytical parameters applied to the samples) was undertaken in accordance with the Contract agreed upon by the Client, based upon the information provided to THEM by the Client concerning existing site conditions. Conditions between sample locations (if any) may differ from those indicated in this report.

This report is intended solely for the use or uses specified in this report and/or the Contract. Use of this report for purposes other than those set out in this report and/or the Contract will be at the sole risk of the Client.

Copying of this report except as may be reasonably required for internal use by the Client and any distribution of this report to persons other than the Client in whole or in part, is not permitted without the express written permission of THEM.

This report is for the sole use of the Client. THEM makes no representation or warranty, either expressed or implied, to any third party with regard to this report and the work referred to in this report and expressly disclaims any, and accepts no duty of care to any third party or any responsibility or liability whatsoever to any third party for any loss, expenses, damages (direct, consequential or contingent), fines, penalties, or other harm that may be suffered or incurred by any third party as a result of any use of, any reliance placed upon, or any decision made or actions taken based upon this report or the work referred to herein.

In no event shall THEM be liable for any indirect, incidental, special or consequential damages, or damages from loss of profits, revenue, or use, incurred by either the client or any third party, whether in an action in tort or contract, even if THEM has been advised of the possibility of such damages. THEM's liability for damages shall in no event exceed the limit of available insurance coverage.

If new information concerning the subject matter of this report arises, THEM should be contacted to re-evaluate the conclusions of this report and to provide amendments as required.

Sincerely,

T. HARRIS ENVIRONMENTAL MANAGEMENT INC.

Todd Norris, B.Sc., AMRT Senior Environmental/OH&S Technologist

Joe D'Angelo, B.A. (Envs), AMRT, EP Project Manager

Greg Balsden, B.Sc., AMRT Manager – Southwestern Ontario

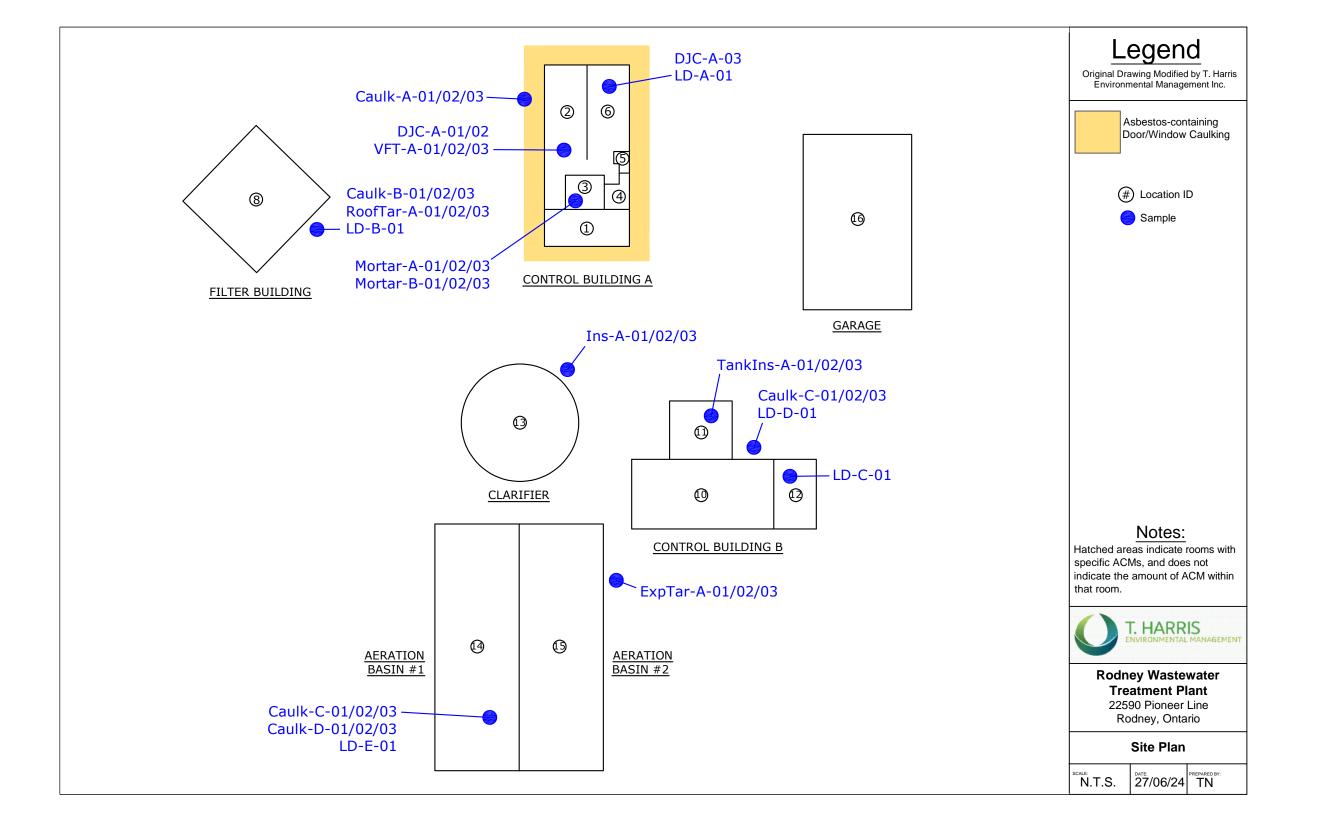


APPENDIX I SITE PHOTOGRAPHS



Photograph 1: View of asbestos-containing grey window, door and vent caulking on the exterior of Control Building A, assigned a **Priority 2**.

APPENDIX II SITE PLANS





APPENDIX III LABORATORY CERTIFICATES OF ANALYSIS



Proj:

Client Sample ID:

EMSL Canada Inc.

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

EMSL Canada Order 552410102 55THAR50A Customer ID: L24-03898 Customer PO:

Project ID:

Attn: Greg Balsden

> T. Harris Environmental, Inc. 931 Commissioners Rd. E.

Suite 100

N5Z 3H9 London, ON

Phone: Fax:

(519) 685-9048 (519) 685-1042 6/27/2024

Collected: Received:

7/02/2024

Analyzed: 7/06/2024

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

Lab Sample ID: 552410102-0001 Client Sample ID: Caulk-A-01

Sample Description: Grey Window& door caulking/Ctrl Bldg A Exterior

Rodney Wasterwater Treatment Plant (L24-03898)

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 White 0.0% 99.0% 1% Chrysotile Lab Sample ID: 552410102-0002

Sample Description: Grey Window& door caulking/Ctrl Bldg A Exterior

Caulk-A-02

Analyzed Non-Asbestos TEST Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Positive Stop (Not Analyzed)

552410102-0003 Client Sample ID: Caulk-A-03 Lab Sample ID:

Sample Description: Grey Window& door caulking/Ctrl Bldg A Exterior

Analyzed Non-Ashestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Positive Stop (Not Analyzed)

552410102-0004 Caulk-B-01 Lab Sample ID: Client Sample ID:

Sample Description: White Window & Vent Caulking/Screen Bldg Exterior

Analyzed Non-Asbestos **TEST** Non-Fibrous Comment Date Color Fibrous Asbestos PLM 7/06/2024 White 0.0% 100.0% None Detected 552410102-0005

Lab Sample ID: Client Sample ID: Caulk-B-02

Sample Description: White Window & Vent Caulking/Screen Bldg Exterior

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 7/06/2024 White 0.0% 100.0% None Detected

Lab Sample ID: 552410102-0006 Client Sample ID: Caulk-B-03

Sample Description: White Window & Vent Caulking/Screen Bldg Exterior

Analyzed Non-Asbestos Fibrous Non-Fibrous TEST Date Color Asbestos Comment PLM 7/06/2024 White 0.0% 100.0% None Detected

Caulk-C-01 Lab Sample ID: 552410102-0007 Client Sample ID:

Sample Description: White door & Vent Caulking/Ctrl Bldg B Exterior

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 7/06/2024 Gray 0.0% 100.0% None Detected



EMSL Canada Inc.

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

EMSL Canada Order 552410102 55THAR50A Customer ID: L24-03898 Customer PO:

Project ID:

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

Lab Sample ID: 552410102-0008 Client Sample ID: Caulk-C-02

Sample Description: White door & Vent Caulking/Ctrl Bldg B Exterior

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Gray 0.0% 100.0% None Detected Client Sample ID: Caulk-C-03 Lab Sample ID: 552410102-0009

Sample Description: White door & Vent Caulking/Ctrl Bldg B Exterior

Analyzed Non-Asbestos TEST Date Color **Fibrous** Non-Fibrous Comment Asbestos PLM 7/06/2024 Gray 0.0% 100.0% None Detected

Client Sample ID: Caulk-D-01 Lab Sample ID: 552410102-0010

Sample Description: White Caulking on pump shed/Aerator #1

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 7/06/2024 Gray/Beige 0.0% 100.0% None Detected Lab Sample ID: 552410102-0011 Caulk-D-02

Sample Description: White Caulking on pump shed/Aerator #1

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Gray/Beige 0.0% 100.0% None Detected Lab Sample ID: 552410102-0012 Client Sample ID: Caulk-D-03

Sample Description: White Caulking on pump shed/Aerator #1

Analyzed Non-Asbestos **TEST** Date **Fibrous** Non-Fibrous **Asbestos** Comment Color PLM 7/06/2024 Gray/Beige 0.0% 100.0% None Detected

552410102-0013 Lab Sample ID: Client Sample ID: Caulk-E-01

Sample Description: Black pipe caulking/Aerator #1

Non-Asbestos Analyzed TEST Fibrous Non-Fibrous Comment Date Asbestos Color PLM 7/06/2024 Black/Green 0.0% 100.0% None Detected 552410102-0014 Caulk-E-02 Lab Sample ID: Client Sample ID:

Sample Description: Black pipe caulking/Aerator #1

Analyzed Non-Asbestos Comment **TEST** Date Color **Fibrous** Non-Fibrous **Asbestos** PLM 7/06/2024 Black/Green 0.0% 100.0% None Detected Lab Sample ID: 552410102-0015 Caulk-E-03 Client Sample ID:

Sample Description: Black pipe caulking/Aerator #1

Non-Asbestos Analyzed **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Gray/Black 0.0% 100.0% None Detected



Client Sample ID:

EMSL Canada Inc.

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

EMSL Canada Order 552410102 55THAR50A Customer ID: L24-03898 Customer PO:

Project ID:

Lab Sample ID:

552410102-0019

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

Lab Sample ID: 552410102-0016 Client Sample ID: DJC-A-01

Sample Description: White drywall Joint Compound/Location 2

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 White 0.0% 100.0% None Detected Client Sample ID: DJC-A-02 Lab Sample ID: 552410102-0017

Sample Description: White drywall Joint Compound/Location 2

Analyzed Non-Asbestos TEST Date **Fibrous** Non-Fibrous Comment Color Asbestos PLM 7/06/2024 White 0.0% 100.0% None Detected Client Sample ID: DJC-A-03 Lab Sample ID: 552410102-0018

Sample Description: White drywall Joint Compound/Location 6

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 7/06/2024 White 0.0% 100.0% None Detected

ExpTar-A-01 Sample Description: Black Expansion joint tar/Aerator #2

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Black 20.0% 80.0% None Detected Lab Sample ID: 552410102-0020

ExpTar-A-02 Sample Description: Black Expansion joint tar/Aerator #2

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous **Asbestos** Comment PLM Black 7/06/2024 20.0% 80.0% None Detected

552410102-0021 ExpTar-A-03 Lab Sample ID: Client Sample ID:

Sample Description: Black Expansion joint tar/Aerator #2

Non-Asbestos Analyzed TEST Fibrous Non-Fibrous Comment Date Asbestos Color PLM 7/06/2024 Black 20.0% 80.0% None Detected 552410102-0022 Ins-A-01 Lab Sample ID: Client Sample ID:

Sample Description: Fibrous exterior insulation/Clarifier Exterior

Analyzed Non-Asbestos Comment **TEST** Date Color **Fibrous** Non-Fibrous **Asbestos** PLM 7/06/2024 White/Blue 80.0% 20.0% None Detected Lab Sample ID: 552410102-0023 Ins-A-02 Client Sample ID:

Sample Description: Fibrous exterior insulation/Clarifier Exterior

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 White/Blue 80.0% 20.0% None Detected



Client Sample ID:

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EMSL Canada Order 552410102 55THAR50A Customer ID: L24-03898 Customer PO:

Project ID:

Lab Sample ID:

552410102-0025

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

Lab Sample ID: 552410102-0024 Client Sample ID:

Sample Description: Fibrous exterior insulation/Clarifier Exterior

	Analyzed		Non	-Asbestos		
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/06/2024	White/Blue	80.0%	20.0%	None Detected	

Sample Description: Grey ceramic floor tile thinset mortar/Loaction 3

Mortar-A-01

	Analyzed		Non-	Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	Mortar-A-02					Lab Sample ID:	552410102-0026

Sample Description: Grey ceramic floor tile thinset mortar/Loaction 3

	Analyzed		Non	-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment		
PLM	7/06/2024	Gray	0.0%	100.0%	None Detected			
Client Sample ID:	Mortar-A-03			<u> </u>		Lab Sample ID:	552410102-0027	

Sample Description: Grey ceramic floor tile thinset mortar/Loaction 3

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	Mortar-B-01					Lab Sample ID:	552410102-0028

Sample Description: Grey ceramic floor tile thinset mortar/Loaction 3

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	White	0.0%	100.0%	None Detected		

552410102-0029 Mortar-B-02 Lab Sample ID: Client Sample ID:

Sample Description: Grey ceramic floor tile thinset mortar/Loaction 3

	Analyze	t	Non	-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment		
PLM	7/06/2024	Gray/White	0.0%	100.0%	None Detected			
Client Sample ID:	Mortar-B-03					Lab Sample ID:	552410102-0030	

Sample Description: Grey ceramic floor tile thinset mortar/Loaction 3

Analyzed		Non	-Asbestos			
Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
7/06/2024	Gray/White	0.0%	100.0%	None Detected		
RoofTar-A-01-Tar Felt					Lab Sample ID:	552410102-0031
Black roofing tar/Screen Bl	dg Exterior					
-	Date 7/06/2024 RoofTar-A-01-Tar Felt	Date Color 7/06/2024 Gray/White	Date Color Fibrous 7/06/2024 Gray/White 0.0% RoofTar-A-01-Tar Felt	Date Color Fibrous Non-Fibrous 7/06/2024 Gray/White 0.0% 100.0% RoofTar-A-01-Tar Felt 0.0% 100.0% 100.0%	DateColorFibrousNon-FibrousAsbestos7/06/2024Gray/White0.0%100.0%None DetectedRoofTar-A-01-Tar Felt	Date Color Fibrous Non-Fibrous Asbestos Comment 7/06/2024 Gray/White 0.0% 100.0% None Detected RoofTar-A-01-Tar Felt Lab Sample ID:

	Analyzed		Non-	Asbestos		
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/06/2024	Black	20.0%	80.0%	None Detected	



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Project ID:

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

Client Sample ID:	RoofTar-A-01-Tar					Lab Sample ID:	552410102-0031A
Sample Description:	Black roofing tar/Screen Bld	g Exterior					
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Black	0.0%	100.0%	None Detected		
Client Sample ID:	RoofTar-A-02-Tar Felt					Lab Sample ID:	552410102-0032
Sample Description:	Black roofing tar/Screen Bld	g Exterior					
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Black	20.0%	80.0%	None Detected		
Client Sample ID:	RoofTar-A-02-Tar		 			Lab Sample ID:	552410102-0032A
Sample Description:	Black roofing tar/Screen Bld	g Exterior					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Black	0.0%	100.0%	None Detected		
Client Sample ID:	RoofTar-A-03-Tar Felt					Lab Sample ID:	552410102-0033
Sample Description:	Black roofing tar/Screen Bld	g Exterior					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Black	20.0%	80.0%	None Detected		
Client Sample ID:	RoofTar-A-03-Tar					Lab Sample ID:	552410102-0033A
Sample Description:	Black roofing tar/Screen Bld	g Exterior					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	Black	0.0%	100.0%	None Detected		
Client Sample ID:	Tanklns-A-01					Lab Sample ID:	552410102-0034
Sample Description:	Fibrous tank insulation/Loca	tion 11					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	White	90.0%	10.0%	None Detected		
Client Sample ID:	TankIns-A-02					Lab Sample ID:	552410102-0035
Sample Description:	Fibrous tank insulation/Loca	tion 11					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	7/06/2024	White	90.0%	10.0%	None Detected		
Client Sample ID:	Tankins-A-03					Lab Sample ID:	552410102-0036

Non-Asbestos

Fibrous Non-Fibrous

10.0%

90.0%

Fibrous tank insulation/Location 11

Analyzed

Date

7/06/2024

Color

White

Sample Description:

TEST

PLM

Comment

Asbestos

None Detected



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EMSL Canada Order 552410102 Customer ID: 55THAR50A L24-03898 Customer PO:

552410102-0037

Project ID:

Lab Sample ID:

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

VFT-A-01-Floor Tile Sample Description: Beige 12" vinyl floor tile/Location 2

Non-Asbestos Analyzed Fibrous **TEST** Date Color Non-Fibrous

Asbestos Comment PLM 7/06/2024 Gray 0.0% 100.0% None Detected

Client Sample ID: VFT-A-01-Mastic Lab Sample ID: 552410102-0037A

Sample Description: Beige 12" vinyl floor tile/Location 2

Analyzed Non-Asbestos TEST Date Color **Fibrous** Non-Fibrous Comment Asbestos 7/06/2024 PLM Black 0.0% 100.0% None Detected

Client Sample ID: VFT-A-02-Floor Tile Lab Sample ID: 552410102-0038

Sample Description: Beige 12" vinyl floor tile/Location 2

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 7/06/2024 Gray 0.0% 100.0% None Detected

Lab Sample ID: 552410102-0038A Client Sample ID: VFT-A-02-Mastic

Sample Description: Beige 12" vinyl floor tile/Location 2

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 7/06/2024 Black 0.0% 100.0% None Detected 552410102-0039 VFT-A-03-Floor Tile Lab Sample ID: Client Sample ID:

Sample Description: Beige 12" vinyl floor tile/Location 2

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous **Asbestos** Comment PLM 7/06/2024 Beige 100.0% None Detected 0.0%

552410102-0039A Lab Sample ID: VFT-A-03-Mastic Client Sample ID:

Sample Description: Beige 12" vinyl floor tile/Location 2

Non-Asbestos Analyzed TEST Date Fibrous Non-Fibrous Comment Color Asbestos PLM 7/06/2024 Black 0.0% 100.0% None Detected



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EMSL Canada Order 552410102 Customer ID: 55THAR50A Customer PO: L24-03898

Project ID:

Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

Analyst(s):

Ashley Brito PLM (14) Hassan Moeez PLM (29)

Reviewed and approved by:

Matthew Davis or other approved signatory or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This is a summary report; official reports are available on LabConnect or upon request and relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 07/06/202415:45:45



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552410112 55THAR50A L24-03898

CustomerID:

EMSL Canada Or

Greg Balsden

T. Harris Environmental, Inc. 931 Commissioners Rd. E. Suite 100

London, ON N5Z 3H9

Project: Rodney Wasterwater Treatment Plan (L24-03898)

Phone: (519) 685-9048 Fax: (519) 685-1042 Received: 7/2/2024 10:03 AM

Collected: 6/27/2024

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

Client SampleDescription	Collected	Analyzed	Weight	RDL	Lead Concentration
LD-A-01 552410112-0001	6/27/2024 Site: Crear	7/2/2024 n wall/ceiling paint/ Location 6	0.2484 g	0.0081 % wt	<0.0081 % wt
LD-B-01 552410112-0002	6/27/2024 Site: Silver	7/2/2024 door/ trim paint/Screen Bldg Exterior	0.2460 g	0.0081 % wt	<0.0081 % wt
LD-C-01 552410112-0003	6/27/2024 Site: Grey	7/2/2024 wall paint/ Location 12	0.2536 g	0.0080 % wt	<0.0080 % wt
LD-D-01 552410112-0004	6/27/2024 Site: Brown	7/2/2024 n door/ trim paint/Ctrl Bldg B Exterior	0.2548 g	0.0080 % wt	<0.0080 % wt
LD-E-01 552410112-0005	6/27/2024 Site: Blue p	7/2/2024 paint on pumps/ Location 15	0.2533 g	0.0080 % wt	<0.0080 % wt

Rowena Fanto, Lead Supervisor or other approved signatory

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Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signiffes the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request. Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA LAP, LLC-ELLAP Accredited #196142