Township of South Stormont

Ingleside WWTP, 14754 County Road 2, Ingleside

Full Site DSR

For: EVB Engineering
800 Second Street West
Cornwall, ON

By: **H.S.P. Consultants Inc.**
5715 Warner Drive
Long Sault, Ontario
K0C 1P0

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Prepared by:

Blake Michels, EIT
Civil/Environmental Specialist

Reviewed by:

Graham Houze, P.Eng., M.Eng.
Senior Environmental Engineer (Associate)

CORNWALL OFFICE:
5715 Warner Drive, Long Sault ON,
Canada, K0C 1P0

Tel: (613) 932-3289
Fax: (613)937-0125
E-mail: engineering@hsp.ca
Web: www.hsp.ca

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1. Executive Summary

H.S.P. Consultants Inc. conducted a limited invasive survey of all areas and buildings associated with the Ingleside Wastewater Treatment Plant located at 14754 County Road 2, Ingleside, ON a site which is used by the Township of South Stormont and managed by Caneau Water & Sewage Operations Inc. The initial survey was completed on July 18th, 2019.

Based on the visual inspection and the laboratory analytical results, the following Designated and Hazardous substances were present in the area surveyed:

- Lead
- Mercury
- Silica
- Mold

Asbestos

The laboratory report indicated that none of the fifty-one (51) samples of seventeen (17) different substrates analyzed were found to exceed the regulatory limit of 0.5% asbestos content.

Recommendation 1:

No recommendation required as asbestos was not detected.

Lead based paint

The presence of lead was detected in eight (8) of the thirty (30) samples of paint throughout the work area. The paints highlighted in Table 3 were all above the regulatory limit of 90 µg/g.

Recommendation 2:

All contractors who are coming on-site should be notified of the presence of lead-based paint with the requirement to follow Ontario Ministry of Labour document Guideline – Lead on Construction Projects. This includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training depending on the classification of the lead-containing construction task. Waste from renovations associated with lead-containing material must also be disposed of in accordance with O. Reg. 347 as amended.

Mercury

Mercury is likely present in minor amounts in any fluorescent lamp tubes and bulbs. Precautions should be taken near mercury containing substances if they may be disturbed during any projects or renovations.

Recommendation 3:

All contractors who are coming on-site should be notified of the potential presence of mercury at the job site. Though there is a low risk of exposure, all personnel should exercise due care and diligence if handling fluorescent tubes or other mercury containing equipment. As well, appropriate work and hygiene practices should be followed including proper PPE and training

Silica

Due to the abundancy of concrete and mortar on-site, it is anticipated that there is likely disturbance to materials containing silica during numerous projects/activities. If proper control methodologies and work practices are utilized, there will be negligible risk for exposure to silica.

Recommendation 4:

All contractors who are coming on-site should be notified of the presence of silica with the requirement to follow Ontario Ministry of Labour document Guideline – Silica on Construction Projects. The area of concern is the concrete and mortar which can be found throughout the site as it is anticipated that numerous projects will result in the release of airborne silica. If silica dust is generated by a project, the Ministry of Labour Guideline includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training.

Mould

Mould was determined to be present throughout the Administration Building. Prior to performing any construction activities in the Admin Building, the mould contamination should be abated. The contractor must be notified of the presence of mould prior to the commencement of any work. This identified area is to be abated and it should be done using the Environmental Abatement Council of Ontario (EACO) guidelines for mould abatement.

Recommendation 5:

Abate the area identified as mould using the Environmental Abatement Council of Ontario (EACO) guidelines for mould abatement

Urea Formaldehyde Foam Insulation

Urea-formaldehyde foam insulation (UFFI) is a synthetic insulation used from the late 1930s to the 1970s. It is applied as a foam that is easily injected or pumped into walls. It becomes firm within minutes but cures within a week. When cured, it often has a dry and crumbly texture.

Urea Formaldehyde Foam Insulation (UFFI) was not detected at the sample location, either by appearance (primary method) or by analysis.

Recommendation 6:

Recommendation not required as UFFI was not determined to be present.

2. Introduction

2.1. Objective

H.S.P. Consultants Inc. conducted a limited invasive survey of all areas and buildings associated with the Ingleside Wastewater Treatment Plant located at 14754 County Road 2, Ingleside, ON a site which is used by the Township of South Stormont and managed by Caneau Water & Sewage Operations Inc. The initial survey was completed on July 18th, 2019.

The survey did not include assessment of all articles at the facility such as furniture, stored or sub-surface items (contents in containers, underground tanks, etc.). The objective of the survey was to determine the location and nature of any designated substances which may be incorporated in the building structures, work areas and finishes of the site.

This Designated Substance Report (DSR) is intended to fulfill the owner's requirements in accordance with the Occupational Health and Safety Act regarded designated substances. The presence of designated substances requires that the building owner must notify all employees and contractors involved in building maintenance and building renovations. A copy of this report should be made available for review by any employee, building maintenance personnel or outside contractors working at the site.

Designated substances are compounds and chemicals that are regulated by the Ontario Ministry of Labour. There are eleven (11) designated substances subject to Ontario Regulation 490/09 under the Occupational Health and Safety Act.

Table 1: Description of the 11 designated substances subject to O.Reg. 490/09

Designated Substance	Description
Acrylonitrile	Clear, colourless toxic liquid. It may be present in stable polymer forms in various paints and adhesives throughout the areas surveyed. However it is not expected that airborne acrylonitrile concentrations from any current activities or planned demolition work will exceed the maximum allowable Time Weighted average Exposure Value (TWAEV) of 2 ppm
Arsenic	May be present in stable polymer forms in various paints and adhesives throughout the areas surveyed. It is not expected that airborne arsenic concentrations from any current activities or planned demolition work will exceed the maximum TWAEV of 0.01 mg/m^3
Asbestos	Asbestos may be a component of building materials manufactured prior to the 1980s often found in insulation, ceiling tiles, floor tiles, caulking and plaster. Asbestos-containing materials (ACM)are classified as friable and non-friable: friable is defined as a material that, when dry, can be crumbled, pulverized or powdered by hand pressure, or is crumbled, pulverized or powdered. In Ontario, an ACM is defined as any material found to contain 0.5% or more asbestos by volume. Regulations that govern projects which involve asbestos removal and handling are O.Reg. 278/05, O.Reg. 490/09, Canadian Occupation Health and Safety Regulations SOR/86/304 and within federal buildings and structures, the PSPC Asbestos Management Standard.
Benzene	Benzene is an aromatic hydrocarbon which may be present as a stable form within roofing materials, paints and adhesives. Due to the volatility of benzene, it is generally considered that only trace amounts of benzene will be present in building materials. It is not expected that benzene emissions from any current activity or demolition work will exceed the allowable TWAEV of 1 ppm.
Coke Oven Emissions	There are no coke oven emissions to be considered within the survey area.
Ethylene oxide	Ethylene oxide was not observed within the survey area.
Isocyanates	These compounds are likely to be found in various plastics, foams, paints and coatings used in the surveyed areas. These compounds may also be present in various building products and elastomeric coatings.

	It is unlikely that isocyanate emissions from any current activity or demolition work will exceed the allowable TEAEV of 0.005 ppm
Lead	Lead has been used as an additive to various paints and within soldered joints and piping. If the coating contains more than 90 micrograms of lead per gram of sample, then the surface coating is considered to be a lead-based paint as per the Surface Coating Materials Regulation, under the federal Hazardous Products Act.
Mercury	Mercury vapour may be present in fluorescent lamp tubes, bulbs and High Intensity Discharge (HID) lighting, electrical components such as thermostats, position dependent switches, batteries and pressure gauges. It is unlikely that that mercury levels from any current activities or demolition activities will exceed the allowable TWAEV of 0.025 mg/m^3.
Silica	Silica is presumed to be present within materials such as brick, concrete, cement, mortar and wall board. Where activities involve removal or disturbance of the above materials, it is recommended that workers be made aware of the potential for exposure to airborne silica and be instructed in the appropriate use of personal protective equipment (PPE). The exposure limits are 0.05 mg of silica per cubic meter of air for cristobalite, and 0.10 mg of silica per cubic meter of air for quartz and Tripoli.
Vinyl chloride	Vinyl chloride may be present in PVC piping and conduits. This was not noted in the survey area.

In addition to the designated substances listed above, a visual assessment is often conducted for the following hazardous building materials:

- Polychlorinated Biphenyls (PCBs)
- Ozone-Depleting Substances (ODSs)
- Urea Formaldehyde Foam Insulation (UFFI)
- Mould

Of these eleven; asbestos, lead, mercury and silica are commonly found in buildings and can impact health and safety during construction, demolition and renovation projects. The remaining designated substances; arsenic, acrylonitrile, benzene, coke oven emissions, ethylene oxide, isocyanates and vinyl chloride (monomer, not PVC) are not typically found in building materials in a composition or form that is hazardous and were not included in the assessment.

2.2. Building Details

The survey site is known as the Ingleside Wastewater Treatment Plant located at 14754 County Road 2 in Ingleside, Ontario. Sampling was performed throughout the building structures and all associated areas of the site.

The site plans and sample locations can be found in Appendix B, consisting of a Site Plan for the entire facility as well as a floor plan of the Administration building as this is where the majority of sampling took place:

Drawing No.	Drawing Title
01	Entire Facility Site Plan (SAMPLE LOCATIONS)
02	Administration Building Floor Plan (SAMPLE LOCATIONS)

3. Method

3.1. Surveyed Area

The area of the property surveyed entailed the entire facility's grounds as well as inside every building which was located on the property. The survey did not include on powder coat finishes which can be found on multiple pumps and equipment throughout the facility as this would have greatly increased lab fees.

The sampling locations for the DSR are as found in Table 2.

- Three samples of insulation were collected for analysis of ACM content. This insulation can be found in the attic of the Centrifuge Building.
- One sample of Yellow Paint 'A' was collected for the analysis of Lead content. This paint can be found on gas pipe on the 2nd floor of the Centrifuge Building.
- One sample of Yellow Paint 'B' was collected for the analysis of Lead content. This paint can be found on gas pipe on the 2nd floor of the Centrifuge Building.
- One sample of White Paint was collected for the analysis of Lead content. This paint can be found on the walls and multiple conduits on the 2nd floor of the Centrifuge Building.
- One sample of Silver Paint was collected for the analysis of Lead content. This paint can be found on multiple metal poles on the 2nd floor of the Centrifuge Building.
- Three samples of fan cladding were collected for analysis of ACM content. This material can be found on the exterior of a fan located on the 2nd floor of the Centrifuge building.
- Three samples of spray foam were collected for analysis of ACM content. This material can be found inside the block wall near the window on the 2nd floor of the Centrifuge Building.
- Three samples of insulation were collected for analysis of ACM content. This insulation can be found surrounding a large pipe on the 1st floor of the Centrifuge Building.

- One sample of black paint was collected for the analysis of Lead content. This paint can be found directly inside the garage door for the 1st floor of the Centrifuge Building.
- One sample of yellow paint was collected for the analysis of Lead content. This paint can be found on a bollard located directly outside the Centrifuge Building.
- Three samples of caulking were collected for analysis of ACM content. This caulking can be found on multiple joints/cracks on the exterior of the Centrifuge Building.
- One sample of powder coat black paint was collected for the analysis of Lead content. This paint can be found on a light standard located just North of the Centrifuge Building.
- One sample of powder coat green paint was collected for the analysis of Lead content. This paint can be found on exterior flashing of the Centrifuge Building.
- One sample of off-white paint was collected for the analysis of Lead content. This paint can be found on the interior walls of the Chemical Building.
- One sample of primer paint was collected for the analysis of Lead content. This paint can be found on the structural steel members located inside the Chemical Building.
- One sample of light green paint was collected for the analysis of Lead content. This paint can be found on a tank located inside the Secondary Clarifier #2 room of the Equipment Building.
- One sample of red paint was collected for the analysis of Lead content. This paint can be found on a conduit/line cover located on the floor of the Secondary Clarifier #2 room of the Equipment Building.
- One sample of white paint was collected for the analysis of Lead content. This paint can be found on the interior walls of the Equipment Building.
- One sample of blue paint was collected for the analysis of Lead content. This paint can be found on exterior equipment located directly North of the Aeration Tanks.

- Three samples of caulking were collected for analysis of ACM content. This caulking can be found on/around exterior equipment located directly North of the Aeration Tanks.
- Three samples of floor tile were collected for analysis of ACM content. These floor tiles can be found on the floor of the office located inside the Administration Building.
- Three samples of ceiling tile were collected for analysis of ACM content. These ceiling tiles can be found throughout ceiling of the Administration Building.
- Three samples of drywall (wallboard) were collected for analysis of ACM content. This material can be found throughout the walls of the Administration Building.
- Three samples of drywall joint compound (DWJC) were collected for analysis of ACM content. This material can be found throughout the walls of the Administration Building.
- One sample of gold paint was collected for the analysis of Lead content. This paint can be found on some interior walls of the Administration Building including but not limited to the office, the lunchroom and the men's washroom.
- One sample of white gloss paint was collected for the analysis of Lead content. This paint can be found on the door frame of the Administration Building's lunchroom.
- One sample of white paint was collected for the analysis of Lead content. This paint can be found on the door frame of the Administration Building's office.
- Three samples of floor tile were collected for analysis of ACM content. These floor tiles can be found on the floor of the lab located inside the Administration Building.
- One sample of grey paint was collected for the analysis of Lead content. This paint can be found on the cupboards of the Administration Building's lab.
- One sample of light blue paint was collected for the analysis of Lead content. This paint can be found on the walls of the Administration Building's lab.

- One sample of pink paint was collected for the analysis of Lead content. This paint can be found on the walls of the Administration Building's women's changeroom and women's washroom.
- One sample of light blue paint was collected for the analysis of Lead content. This paint can be found on the walls of the Administration Building's men's changeroom and janitor's closet.
- Three samples of cladding were collected for analysis of ACM content. This cladding can be found on the exterior of multiple ducts located inside the Administration Building's mechanical room.
- One sample of white paint was collected for the analysis of Lead content. This paint can be found on the walls of the Administration Building's mechanical room.
- One sample of yellow paint was collected for the analysis of Lead content. This paint can be found on a gas line located inside the Administration Building's mechanical room.
- One sample of green paint was collected for the analysis of Lead content. This paint can be found on the doors and frames of the Administration Building's storage areas.
- One sample of white gloss paint was collected for the analysis of Lead content. This paint can be found on the door of the Administration Building's garage.
- One sample of yellow paint was collected for the analysis of Lead content. This paint can be found on the hoist beam located inside the Administration Building's garage.
- Three samples of Caulking '1' were collected for analysis of ACM content. This caulking can be found surrounding multiple penetrations inside the Administration Building's generator room.
- One sample of Grey Paint '1' was collected for the analysis of Lead content. This paint can be found on frame of the generator located inside the Administration Building's generator room.
- One sample of black paint was collected for the analysis of Lead content. This paint can be found on multiple pipes located inside the Administration Building's generator room.

- Three samples of Caulking ‘2’ (named “Cladding” on chain of custody”) were collected for analysis of ACM content. This caulking can be found surrounding multiple penetrations inside the Administration Building’s generator room.
- One sample of Grey Paint ‘2’ was collected for the analysis of Lead content. This paint can be found on floor of the Administration Building’s generator room.
- Three samples of putty were collected for analysis of ACM content. This putty can be found surrounding multiple wires and conduits inside the Administration Building’s electrical room.
- Three samples of insulation were collected for analysis of ACM content. This insulation can be found surrounding multiple ceiling penetrations inside the Administration Building’s electrical room.
- One sample of green paint was collected for the analysis of Lead content. This paint can be found on exterior flashing of the Administration Building.
- Three samples of coated panel were collected for analysis of ACM content. This coated panel can be found surrounding the foundation of the Administration Building’s exterior.
- Three samples of firestop were collected for analysis of ACM content. This firestop can be found surrounding multiple penetrations on the south side of the Administration Building’s exterior.

In addition, it was noted that the work area contained concrete and was considered to contain silica. The room also contained fluorescent lighting, which was not sent for analysis, but was considered to contain Mercury.

Table 2: Listing of sampling locations for the Ingleside WWTP full-site DSR.

Sample #	HSP Sample Name	Description	Location	Test
1	SLU-ATT-Insul A	Insulation	Centrifuge Building Attic	ACM
2	SLU-ATT-Insul B	Insulation	Centrifuge Building Attic	ACM
3	SLU-ATT-Insul C	Insulation	Centrifuge Building Attic	ACM
4	SLU-2ND-Paint Yellow A	Yellow Paint	Centrifuge Building 2nd Floor	LBP
5	SLU-2ND-Paint Yellow B	Yellow Paint	Centrifuge Building 2nd Floor	LBP
6	SLU-2ND-Paint White	White Paint	Centrifuge Building 2nd Floor	LBP
7	SLU-2ND-Paint Silver	Silver Paint	Centrifuge Building 2nd Floor	LBP
8	SLU-2ND-Fan Cladding A	Fan Cladding	Centrifuge Building 2nd Floor	ACM
9	SLU-2ND-Fan Cladding B	Fan Cladding	Centrifuge Building 2nd Floor	ACM
10	SLU-2ND-Fan Cladding C	Fan Cladding	Centrifuge Building 2nd Floor	ACM
11	SLU-2ND-Spray Foam A	Spray Foam	Centrifuge Building 2nd Floor	UFFI
12	SLU-2ND-Spray Foam B	Spray Foam	Centrifuge Building 2nd Floor	UFFI
13	SLU-2ND-Spray Foam C	Spray Foam	Centrifuge Building 2nd Floor	UFFI
14	SLU-1st-Insulation A	Insulation	Centrifuge Building 1st Floor	ACM
15	SLU-1st-Insulation B	Insulation	Centrifuge Building 1st Floor	ACM
16	SLU-1st-Insulation C	Insulation	Centrifuge Building 1st Floor	ACM
17	SLU-1st-Paint Black	Black Paint	Centrifuge Building 1st Floor	LBP
18	SLU-EXT-Paint Yellow	Yellow Paint	Centrifuge Building Exterior	LBP
19	SLU-EXT-Caulking A	Caulking	Centrifuge Building Exterior	ACM
20	SLU-EXT-Caulking B	Caulking	Centrifuge Building Exterior	ACM
21	SLU-EXT-Caulking C	Caulking	Centrifuge Building Exterior	ACM
22	SLU-EXT-Powdercoat Black	Black Paint	Centrifuge Building Exterior	LBP
23	SLU-EXT-Powdercoat Green	Green Paint	Centrifuge Building Exterior	LBP
24	AER-Tank-Paint Off-White	Off-White Paint	Chemical Building Interior	LBP
25	AER-Tank-Primer	Red Primer	Chemical Building Interior	LBP
26	AER-CL2 Pump-Paint LT Green	Light Green Paint	Equipment Building	LBP
27	AER-CL2-Paint Red	Red Paint	Equipment Building	LBP
28	AER-Sludge-Paint White	White Paint	Equipment Building	LBP
29	AER-Basin-Paint Blue	Blue Paint	North of Aeration Tanks	LBP
30	AER-Basin-Caulking A	Caulking	North of Aeration Tanks	ACM
31	AER-Basin-Caulking B	Caulking	North of Aeration Tanks	ACM
32	AER-Basin-Caulking C	Caulking	North of Aeration Tanks	ACM
33	ADM-OFF-Floor Tile A	Floor Tile	Administration Building's Office	ACM
34	ADM-OFF-Floor Tile B	Floor Tile	Administration Building's Office	ACM
35	ADM-OFF-Floor Tile C	Floor Tile	Administration Building's Office	ACM
36	ADM-OFF-Ceiling Tile A	Ceiling Tile	Administration Building	ACM
37	ADM-OFF-Ceiling Tile B	Ceiling Tile	Administration Building	ACM
38	ADM-OFF-Ceiling Tile C	Ceiling Tile	Administration Building	ACM
39	ADM-OFF-Wallboard A	Drywall	Administration Building	ACM

40	ADM-OFF-Wallboard B	Drywall	Administration Building	ACM
41	ADM-OFF-Wallboard C	Drywall	Administration Building	ACM
42	ADM-OFF-DWJC A	DWJC	Administration Building	ACM
43	ADM-OFF-DWJC B	DWJC	Administration Building	ACM
44	ADM-OFF-DWJC C	DWJC	Administration Building	ACM
45	ADM-OFF-Paint Gold	Gold Paint	Administration Building's Office	LBP
46	ADM-LUN-Paint White Gloss	White Paint	Administration Building's Lunchroom	LBP
47	ADM-LOB-Paint White	White Paint	Administration Building's Lobby	LBP
48	ADM-LAB-Floor Tile A	Floor Tile	Administration Building's Lab	ACM
49	ADM-LAB-Floor Tile B	Floor Tile	Administration Building's Lab	ACM
50	ADM-LAB-Floor Tile C	Floor Tile	Administration Building's Lab	ACM
51	ADM-LAB-Paint Grey	Grey Paint	Administration Building's Lab	LBP
52	ADM-LAB-Paint Light Blue	Light Blue Paint	Administration Building's Lab	LBP
53	ADM-WL-Paint Pink	Pink Paint	Admin Building's Women's Changeroom	LBP
54	ADM-ML-Paint Light Blue	Light Blue Paint	Admin Building's Men's Changeroom	LBP
55	ADM-MECH-Cladding A	Duct Cladding	Admin Building's Mech Room	ACM
56	ADM-MECH-Cladding B	Duct Cladding	Admin Building's Mech Room	ACM
57	ADM-MECH-Cladding C	Duct Cladding	Admin Building's Mech Room	ACM
58	ADM-MECH-Paint White	White Paint	Admin Building's Mech Room	LBP
59	ADM-MECH-Paint Yellow	Yellow Paint	Admin Building's Mech Room	LBP
60	ADM-ST1-Paint Green	Green Paint	Admin Building's Storage	LBP
61	ADM-WS-Paint White Gloss	White Paint	Admin Building's Garage	LBP
62	ADM-WS-Paint Yellow	Yellow Paint	Admin Building's Garage	LBP
63	ADM-GEN-Caulking A	Caulking	Admin Building's Generator Room	ACM
64	ADM-GEN-Caulking B	Caulking	Admin Building's Generator Room	ACM
65	ADM-GEN-Caulking C	Caulking	Admin Building's Generator Room	ACM
66	ADM-GEN-Paint Grey	Grey Paint	Admin Building's Generator Room	LBP
67	ADM-GEN-Paint Black	Black Paint	Admin Building's Generator Room	LBP
68	ADM-GEN-Cladding2	Caulking	Admin Building's Generator Room	ACM
69	ADM-GEN-Cladding2	Caulking	Admin Building's Generator Room	ACM
70	ADM-GEN-Cladding2	Caulking	Admin Building's Generator Room	ACM
71	ADM-GEN-Paint Grey 2	Grey Paint	Admin Building's Generator Room	LBP
72	ADM-ELEC-Putty A	Elec. Putty	Admin Building's Electrical Room	ACM
73	ADM-ELEC-Putty B	Elec. Putty	Admin Building's Electrical Room	ACM
74	ADM-ELEC-Putty C	Elec. Putty	Admin Building's Electrical Room	ACM
75	ADM-ELEC-INSULATION A	Insulation	Admin Building's Electrical Room	ACM
76	ADM-ELEC-INSULATION B	Insulation	Admin Building's Electrical Room	ACM
77	ADM-ELEC-INSULATION C	Insulation	Admin Building's Electrical Room	ACM
78	ADM-EXT-Paint Green	Green Paint	Admin Building's Exterior	LBP
79	ADM-EXT-Coated Panel A	Panel Board	Admin Building's Exterior	ACM
80	ADM-EXT-Coated Panel B	Panel Board	Admin Building's Exterior	ACM
81	ADM-EXT-Coated Panel C	Panel Board	Admin Building's Exterior	ACM

82	ADM-EXT-Firestop A	Firestopping	Admin Building's Exterior	ACM
83	ADM-EXT-Firestop B	Firestopping	Admin Building's Exterior	ACM
84	ADM-EXT-Firestop C	Firestopping	Admin Building's Exterior	ACM

3.2. Inspection

A representative of H.S.P. Consultants Inc. along with a representative from Brookfield conducted walk-throughs of the proposed work area identifying and cataloging items suspected to be hazardous. Samples of materials suspected to be Asbestos-Containing Materials (ACM) were collected in addition to paint and surface finish samples for lead analysis. Each item suspected to be ACM or have high lead content was noted and photographed. A description of the item and the condition of the material (friable, non-friable, etc.) as well as any other relevant details were recorded.

3.3. Sampling

Samples of material identified as potential ACM during the inspection were collected using methods by means associated with Type 1 work in accordance with O. Reg. 278/05. Appropriate Personal Protective Equipment (PPE) and precautions were used at all times while sampling material suspect to be ACM.

Samples of material identified as suspected for lead content were collected.

Locations deemed to have silica and/or mercury were noted by visual inspection rather than analytical techniques.

Samples were collected by B. Michels, representing H.S.P. Consultants Inc.

3.4. *Analysis*

Analysis of collected samples suspected to be ACM was performed using the method as per USEPA EPA/600/R-93/116: *Method for Determination of Asbestos in Bulk Building Materials*. Analysis was done by AGAT Laboratories in Mississauga, ON.

Analysis of collected samples suspected to contain elevated lead content was performed using the method as per USEPA SW 846 3050B and SW 846 6010C: *Inductively Coupled Plasma-Atomic Emission Spectrometry*. Analysis was done by AGAT Laboratories in Mississauga, ON.

Analysis of collected substances suspected to contain UFFI was performed using the method as per OSHA 52/EPA 8315 and EPA 556. Analysis was done by AGAT Laboratories in Mississauga, ON.

The presence of mercury and silica was determined by visual inspection and consideration of the material of construction.

4. Results

4.1. Asbestos-Containing Materials

In the past, asbestos had been widely incorporated into a wide variety of common buildings materials. Although asbestos is not permitted to be incorporated into building materials today, old ACMs still remain in many buildings. It has been well understood since the early 1980s that disturbance of these materials, for example during renovations or demolition projects can lead to inhalation exposure to airborne asbestos fibres which has shown to result in Asbestosis, Mesothelioma as well as other lung cancers and respiratory problems. The Ontario Ministry of Labour governs management of ACMs in construction projects specifically through Ontario Regulation 278/05 in addition to Ontario Regulation 490/09 under the Occupational Health and Safety Act. As well, all work with asbestos-containing material is also subject to the requirements of the *PSPC Asbestos Management Standards* and the *Canadian Occupational Health& Safety Regulation SOR/86/304*.

A total of fifty-one (51) potential samples, representing seventeen (17) substrates were collected and sent for analysis for asbestos content.

- None (0) of the samples collected were found to exceed the regulatory limit of 0.5% asbestos content.

The analytical reports are included in Appendix C.

4.2. Lead-Containing Materials

Lead has been used in industry for a variety of uses including the production of pigments, paints, glass and even plastics and rubbers. Lead is inherently found in building materials such as paints, mortars, concretes and sheet metals. Lead is also often present in solder used to connect fittings to domestic water supply piping (copper) and older cast-iron drainage piping. The Ontario Ministry of Labour governs exposure to lead in construction projects through Ontario Regulation 860 (WHIMS), Ontario Regulation 213/91 and Ontario Regulation 490/09 under the Occupational Health and Safety Act. Lead exposure through inhalation of airborne lead particles (and ultimately ingestion of larger particles which pass through the lungs) can lead to problems with the renal, gastrointestinal, nervous and reproductive systems. Children are more vulnerable to the effects of lead as even low-level exposure is known to cause developmental, behavioural and physical growth problems in young children. It is important for workers to ensure their families are not exposed to lead-containing dust carried home from a jobsite on a worker's clothing or equipment.

Thirty (30) representative samples of the paint surfaces suspected of having elevated lead content (in excess of 90 µg/g) embodied in the structure or finish of items in the WWTP were collected. A total of thirty samples (30) were sent for analysis for lead content, with eight (8) having a lead content above 90 µg/g:

- 715 µg/g of Lead was detected in the "SLU-2ND-Paint Yellow A" sample tested
- 499 µg/g of Lead was detected in the "SLU-2ND-Paint Yellow B" sample tested
- 104 µg/g of Lead was detected in the "SLU-2ND-Paint Silver" sample tested
- 109 µg/g of Lead was detected in the "SLU-EXT-Paint Yellow" sample tested
- 9360 µg/g of Lead was detected in the "SLU-EXT-Powdercoat Green" sample tested
- 2940 µg/g of Lead was detected in the "ADM-MECH-Paint Yellow" sample tested

- 48,800 µg/g of Lead was detected in the “ADM-WS-Paint Yellow” sample tested
- 107 µg/g of Lead was detected in the “ADM-EXT-Paint Green” sample tested

Analytical reports are included in Appendix C.

4.3. Mercury

Mercury may be present in fluorescent lighting tubes, thermometers and thermostats in various locations in the buildings and throughout the exterior grounds. Mercury exposure through dermal contact as well as inhalation can result in neurological, renal (kidney), cardiovascular and immunological problems. The most common exposure pathway for mercury is via contact with substances or products containing mercury however exposure to mercury vapours associated with spills of liquid mercury is also relevant on construction/demolition projects.

4.4. Silica

Silica is the second most common mineral forming the earth’s crust and exists in several forms; however the most common configuration is crystalline in the form of quartz. Silica is expected to be present as a typical component in building materials such as brick, terrazzo tile, mortar and grout as well as wall plasters, parging and ceramics. The Ontario Ministry of Labour governs exposure to silica in construction projects through Ontario Regulation 860 (WHMIS), Ontario Regulation 213/91 and Ontario Regulation 490/09 under the Occupational Health and Safety Act. Prolonged inhalation of dust containing crystalline silica can result in pneumoconiosis (silicosis) and is known to be otherwise carcinogenic.

Based on the abundance of concrete and mortar throughout the WWTP, it is anticipated that there is likely disturbance the silica-containing substances (concrete), thus providing a risk for exposure to silica. However, if proper control methodologies and work practices are utilized, there will be negligible risk for exposure to silica.

4.5. Mould

Mould refers to a large group of microorganisms belonging to the kingdom of Fungi which degrade nutrients from organic substrates such as wood, fabrics, plants, debris and soil. Although not all materials are suitable for mould growth, they may contain or otherwise trap material which can support colonies which can appear sometimes in just a few days. In order to support such growth, mould requires the correct combination of circumstances providing appropriate substrate under suitable moisture and temperature conditions. Generally, the growth of mould results in a musty odour associated with by-products of the colony's metabolism. Moulds reproduce by emitting spores which may pose human health risks when airborne. Typical symptoms associated with mould exposure are nose and eye irritations, congestion, aggravated respiratory illnesses, flu-like symptoms and rash among others. Persons with suppressed immune systems may be especially at risk of fungal infections associated with indoor moulds.

Mould was determined to be present throughout the Administration Building. Prior to performing any construction activities in the Admin Building, the mould contamination should be abated. The contractor must be notified of the presence of mould prior to the commencement of any work. This identified area is to be abated and it should be done using the Environmental Abatement Council of Ontario (EACO) guidelines for mould abatement.

4.6. Urea Formaldehyde Foam Insulation

Urea-formaldehyde foam insulation (UFFI) is a synthetic insulation used from the late 1930s to the 1970s. It is applied as a foam that is easily injected or pumped into walls. It becomes firm within minutes but cures within a week. When cured, it often has a dry and crumbly texture.

Health effects occur when urea-formaldehyde based materials and products release formaldehyde into the air. It is anticipated that there will be no observable health effects from formaldehyde when air

concentrations are below 1.0 ppm. The onset of respiratory irritation and other health effects, and even increased cancer risk begins when air concentrations exceed 3.0 to 5.0 ppm.

The primary means of determining presence of urea formaldehyde is by visually inspecting the material. It will have a dry, crumbly texture and will easily break or break off with manual manipulation. This is the primary means of identifying urea formaldehyde presence. In this instance, the samples were also sent to a laboratory to quantify if the samples contained urea formaldehyde.

- UFFI was not evident at locations in the surveyed area by visual and tactile inspection.
- UFFI was detected by the laboratory analysis but at low levels which indicate that the insulation material was urea formaldehyde.

4.7. Summary of test results

Tabular summary of sampling results.

Table 3: Summary of analytical results for the Ingleside WWTP Full-Site DSR

Sample #	HSP Sample Name	Description	Location	Test	Results	Presence of Tested Designated Substance
1	SLU-ATT-Insul A	Insulation	Centrifuge Building Attic	ACM	Non-detect (RDL 0.5%)	No
2	SLU-ATT-Insul B	Insulation	Centrifuge Building Attic	ACM	Non-detect (RDL 0.5%)	No
3	SLU-ATT-Insul C	Insulation	Centrifuge Building Attic	ACM	Non-detect (RDL 0.5%)	No
4	SLU-2ND-Paint Yellow A	Yellow Paint	Centrifuge Building 2nd Floor	LBP	715 µg/g (RDL 10 µg/g)	YES
5	SLU-2ND-Paint Yellow B	Yellow Paint	Centrifuge Building 2nd Floor	LBP	499 µg/g (RDL 10 µg/g)	YES
6	SLU-2ND-Paint White	White Paint	Centrifuge Building 2nd Floor	LBP	<10 µg/g (RDL 10 µg/g)	No
7	SLU-2ND-Paint Silver	Silver Paint	Centrifuge Building 2nd Floor	LBP	104 µg/g (RDL 10 µg/g)	YES
8	SLU-2ND-Fan Cladding A	Fan Cladding	Centrifuge Building 2nd Floor	ACM	Non-detect (RDL 0.5%)	No
9	SLU-2ND-Fan Cladding B	Fan Cladding	Centrifuge Building 2nd Floor	ACM	Non-detect (RDL 0.5%)	No
10	SLU-2ND-Fan Cladding C	Fan Cladding	Centrifuge Building 2nd Floor	ACM	Non-detect (RDL 0.5%)	No
11	SLU-2ND-Spray Foam A	Spray Foam	Centrifuge Building 2nd Floor	UFI	7.5 mg/kg RDL (0.01 mg/kg)	No
12	SLU-2ND-Spray Foam B	Spray Foam	Centrifuge Building 2nd Floor	UFI	25.9 mg/kg RDL (0.01 mg/kg)	No
13	SLU-2ND-Spray Foam C	Spray Foam	Centrifuge Building 2nd Floor	UFI	13.0 mg/kg RDL (0.01 mg/kg)	No
14	SLU-1st-Insulation A	Insulation	Centrifuge Building 1st Floor	ACM	Non-detect (RDL 0.5%)	No
15	SLU-1st-Insulation B	Insulation	Centrifuge Building 1st Floor	ACM	Non-detect (RDL 0.5%)	No
16	SLU-1st-Insulation C	Insulation	Centrifuge Building 1st Floor	ACM	Non-detect (RDL 0.5%)	No
17	SLU-1st-Paint Black	Black Paint	Centrifuge Building 1st Floor	LBP	67 µg/g (RDL 10 µg/g)	No

18	SLU-EXT-Paint Yellow	Yellow Paint	Centrifuge Building Exterior	LBP	109 µg/g (RDL 10 µg/g)	YES
19	SLU-EXT-Caulking A	Caulking	Centrifuge Building Exterior	ACM	Non-detect (RDL 0.5%)	No
20	SLU-EXT-Caulking B	Caulking	Centrifuge Building Exterior	ACM	Non-detect (RDL 0.5%)	No
21	SLU-EXT-Caulking C	Caulking	Centrifuge Building Exterior	ACM	Non-detect (RDL 0.5%)	No
22	SLU-EXT-Powdercoat Black	Black Paint	Centrifuge Building Exterior	LBP	<10 µg/g (RDL 10 µg/g)	No
23	SLU-EXT-Powdercoat Green	Green Paint	Centrifuge Building Exterior	LBP	9360 µg/g (RDL 20 µg/g)	YES
24	AER-Tank-Paint Off-White	Off-White Paint	Chemical Building Interior	LBP	12 µg/g (RDL 10 µg/g)	No
25	AER-Tank-Primer	Red Primer	Chemical Building Interior	LBP	66 µg/g (RDL 10 µg/g)	No
26	AER-CL2 Pump-Paint LT Green	Light Green Paint	Equipment Building	LBP	43 µg/g (RDL 40 µg/g)	No
27	AER-CL2-Paint Red	Red Paint	Equipment Building	LBP	14 µg/g (RDL 10 µg/g)	No
28	AER-Sludge-Paint White	White Paint	Equipment Building	LBP	<10 µg/g (RDL 10 µg/g)	No
29	AER-Basin-Paint Blue	Blue Paint	North of Aeration Tanks	LBP	31 µg/g (RDL 10 µg/g)	No
30	AER-Basin-Caulking A	Caulking	North of Aeration Tanks	ACM	Non-detect (RDL 0.5%)	No
31	AER-Basin-Caulking B	Caulking	North of Aeration Tanks	ACM	Non-detect (RDL 0.5%)	No
32	AER-Basin-Caulking C	Caulking	North of Aeration Tanks	ACM	Non-detect (RDL 0.5%)	No
33	ADM-OFF-Floor Tile A	Floor Tile	Administration Building's Office	ACM	Non-detect (RDL 0.5%)	No
34	ADM-OFF-Floor Tile B	Floor Tile	Administration Building's Office	ACM	Non-detect (RDL 0.5%)	No
35	ADM-OFF-Floor Tile C	Floor Tile	Administration Building's Office	ACM	Non-detect (RDL 0.5%)	No
36	ADM-OFF-Ceiling Tile A	Ceiling Tile	Administration Building	ACM	Non-detect (RDL 0.5%)	No
37	ADM-OFF-Ceiling Tile B	Ceiling Tile	Administration Building	ACM	Non-detect (RDL 0.5%)	No
38	ADM-OFF-Ceiling Tile C	Ceiling Tile	Administration Building	ACM	Non-detect (RDL 0.5%)	No
39	ADM-OFF-Wallboard A	Drywall	Administration Building	ACM	Non-detect (RDL 0.5%)	No

40	ADM-OFF-Wallboard B	Drywall	Administration Building	ACM	Non-detect (RDL 0.5%)	No
41	ADM-OFF-Wallboard C	Drywall	Administration Building	ACM	Non-detect (RDL 0.5%)	No
42	ADM-OFF-DWJC A	DWJC	Administration Building	ACM	Non-detect (RDL 0.5%)	No
43	ADM-OFF-DWJC B	DWJC	Administration Building	ACM	Non-detect (RDL 0.5%)	No
44	ADM-OFF-DWJC C	DWJC	Administration Building	ACM	Non-detect (RDL 0.5%)	No
45	ADM-OFF-Paint Gold	Gold Paint	Administration Building's Office	LBP	<10 µg/g (RDL 10 µg/g)	No
46	ADM-LUN-Paint White Gloss	White Paint	Administration Building's Lunchroom	LBP	13 µg/g (RDL 10 µg/g)	No
47	ADM-LOB-Paint White	White Paint	Administration Building's Lobby	LBP	19 µg/g (RDL 10 µg/g)	No
48	ADM-LAB-Floor Tile A	Floor Tile	Administration Building's Lab	ACM	Non-detect (RDL 0.5%)	No
49	ADM-LAB-Floor Tile B	Floor Tile	Administration Building's Lab	ACM	Non-detect (RDL 0.5%)	No
50	ADM-LAB-Floor Tile C	Floor Tile	Administration Building's Lab	ACM	Non-detect (RDL 0.5%)	No
51	ADM-LAB-Paint Grey	Grey Paint	Administration Building's Lab	LBP	11 µg/g (RDL 10 µg/g)	No
52	ADM-LAB-Paint Light Blue	Light Blue Paint	Administration Building's Lab	LBP	<40 µg/g (RDL 40 µg/g)	No
53	ADM-WL-Paint Pink	Pink Paint	Admin Building's Women's Changeroom	LBP	<10 µg/g (RDL 10 µg/g)	No
54	ADM-ML-Paint Light Blue	Light Blue Paint	Admin Building's Men's Changeroom	LBP	<10 µg/g (RDL 10 µg/g)	No
55	ADM-MECH-Cladding A	Duct Cladding	Admin Building's Mech Room	ACM	Non-detect (RDL 0.5%)	No
56	ADM-MECH-Cladding B	Duct Cladding	Admin Building's Mech Room	ACM	Non-detect (RDL 0.5%)	No
57	ADM-MECH-Cladding C	Duct Cladding	Admin Building's Mech Room	ACM	Non-detect (RDL 0.5%)	No
58	ADM-MECH-Paint White	White Paint	Admin Building's Mech Room	LBP	<10 µg/g (RDL 10 µg/g)	No
59	ADM-MECH-Paint Yellow	Yellow Paint	Admin Building's Mech Room	LBP	2940 µg/g (RDL 10 µg/g)	YES
60	ADM-ST1-Paint Green	Green Paint	Admin Building's Storage	LBP	11 µg/g (RDL 10 µg/g)	No
61	ADM-WS-Paint White Gloss	White Paint	Admin Building's Garage	LBP	<10 µg/g (RDL 10 µg/g)	No

62	ADM-WS-Paint Yellow	Yellow Paint	Admin Building's Garage	LBP	48,800 µg/g (RDL 10 µg/g)	YES
63	ADM-GEN-Caulking A	Caulking	Admin Building's Generator Room	ACM	Non-detect (RDL 0.5%)	No
64	ADM-GEN-Caulking B	Caulking	Admin Building's Generator Room	ACM	Non-detect (RDL 0.5%)	No
65	ADM-GEN-Caulking C	Caulking	Admin Building's Generator Room	ACM	Non-detect (RDL 0.5%)	No
66	ADM-GEN-Paint Grey	Grey Paint	Admin Building's Generator Room	LBP	40 µg/g (RDL 10 µg/g)	No
67	ADM-GEN-Paint Black	Black Paint	Admin Building's Generator Room	LBP	60 µg/g (RDL 20 µg/g)	No
68	ADM-GEN-Cladding2	Caulking	Admin Building's Generator Room	ACM	Non-detect (RDL 0.5%)	No
69	ADM-GEN-Cladding2	Caulking	Admin Building's Generator Room	ACM	Non-detect (RDL 0.5%)	No
70	ADM-GEN-Cladding2	Caulking	Admin Building's Generator Room	ACM	Non-detect (RDL 0.5%)	No
71	ADM-GEN-Paint Grey 2	Grey Paint	Admin Building's Generator Room	LBP	107 µg/g (RDL 10 µg/g)	YES
72	ADM-ELEC-Putty A	Elec. Putty	Admin Building's Electrical Room	ACM	Non-detect (RDL 0.5%)	No
73	ADM-ELEC-Putty B	Elec. Putty	Admin Building's Electrical Room	ACM	Non-detect (RDL 0.5%)	No
74	ADM-ELEC-Putty C	Elec. Putty	Admin Building's Electrical Room	ACM	Non-detect (RDL 0.5%)	No
75	ADM-ELEC-INSULATION A	Insulation	Admin Building's Electrical Room	ACM	Non-detect (RDL 0.5%)	No
76	ADM-ELEC-INSULATION B	Insulation	Admin Building's Electrical Room	ACM	Non-detect (RDL 0.5%)	No
77	ADM-ELEC-INSULATION C	Insulation	Admin Building's Electrical Room	ACM	Non-detect (RDL 0.5%)	No
78	ADM-EXT-Paint Green	Green Paint	Admin Building's Exterior	LBP	19 µg/g (RDL 10 µg/g)	No
79	ADM-EXT-Coated Panel A	Panel Board	Admin Building's Exterior	ACM	Non-detect (RDL 0.5%)	No
80	ADM-EXT-Coated Panel B	Panel Board	Admin Building's Exterior	ACM	Non-detect (RDL 0.5%)	No
81	ADM-EXT-Coated Panel C	Panel Board	Admin Building's Exterior	ACM	Non-detect (RDL 0.5%)	No
82	ADM-EXT-Firestop A	Firestopping	Admin Building's Exterior	ACM	Non-detect (RDL 0.5%)	No
83	ADM-EXT-Firestop B	Firestopping	Admin Building's Exterior	ACM	Non-detect (RDL 0.5%)	No
84	ADM-EXT-Firestop C	Firestopping	Admin Building's Exterior	ACM	Non-detect (RDL 0.5%)	No

As mentioned in Section 1.1, the presence of 8 of the 11 Designated Substances are not typically found at levels of concern within construction materials and are not included in the analytical testing.

Table 4: Summary of presence of designated substances as per O.Reg. 490/09

Substance	**Tested**	**Present**	**Comment**
Acrylonitrile	No	n/a	Not typical in building material
Arsenic	No	n/a	Not typical in building material
Asbestos	Yes	**No**	No ACM found in any of the materials tested
Benzene	No	n/a	Not typical in building material
Coke Oven Emissions	No	n/a	Not typical in building material
Ethylene Oxide	No	n/a	Not typical in building material
Isocyanates	No	n/a	Not typical in building material
Lead	Yes	**YES**	• 715 µg/g of Lead was detected in the "SLU-2ND-Paint Yellow A" sample tested • 499 µg/g of Lead was detected in the "SLU-2ND-Paint Yellow B" sample tested • 104 µg/g of Lead was detected in the "SLU-2ND-Paint Silver" sample tested • 109 µg/g of Lead was detected in the "SLU-EXT-Paint Yellow" sample tested • 9360 µg/g of Lead was detected in the "SLU-EXT-Powdercoat Green" sample tested • 2940 µg/g of Lead was detected in the "ADM-MECH-Paint Yellow" sample tested • 48,800 µg/g of Lead was detected in the "ADM-WS-Paint Yellow" sample tested • 107 µg/g of Lead was detected in the "ADM-EXT-Paint Green" sample tested
Mercury	Yes-Visual	**YES**	No disturbance of light fixtures or heating controls to be undertaken
Silica	Yes-Visual	**YES**	Presence assumed due to ubiquity of silica use for concrete and mortar
Vinyl Chloride	No	No	No presence of PVC materials (visual determination)

Mould was evident throughout the Administration Building of the WWTP facility. There was no visual evidence of the presence of equipment that may contain PCBs or ODSs.

5. Conclusions

The objective of the survey was to determine the location and nature of any designated substances which may be incorporated in the building structures and finishes in the vicinities of the proposed work area.

- Asbestos was not detected in any of the materials sampled at the Ingleside WWTP
- Lead concentrations in excess of the limit of 90 µg/g were found in eight (8) of the thirty (30) paint samples tested form the Ingleside WWTP:
    - 715 µg/g of Lead was detected in the "SLU-2ND-Paint Yellow A" sample tested
    - 499 µg/g of Lead was detected in the "SLU-2ND-Paint Yellow B" sample tested
    - 104 µg/g of Lead was detected in the "SLU-2ND-Paint Silver" sample tested
    - 109 µg/g of Lead was detected in the "SLU-EXT-Paint Yellow" sample tested
    - 9360 µg/g of Lead was detected in the "SLU-EXT-Powdercoat Green" sample tested
    - 2940 µg/g of Lead was detected in the "ADM-MECH-Paint Yellow" sample tested
- Mercury is assumed to be present in lighting and in heating control equipment which can be found throughout the facilities and site
- Silica is assumed to be present in the building materials of the Ingleside WWTP (concrete floors, walls and ceilings), however the proposed activities can be mediated to minimize the release of airborne silica-containing dust during construction/work activities.
- Mould was evident throughout the Administration Building of the Ingleside WWTP.
- Urea Formaldehyde Foam Insulation (UFFI) was not detected in the samples collected. The primary mechanism to detect UFFI is visual inspection. The material did not resemble UFFI but samples were tested at an independent laboratory. As this is not a typical test, the test performed is not accredited but serves to support the assertion that the foam material was not UFFI.

6. Recommendations

6.1. Asbestos

The Ontario Ministry of Labour governs management of ACMs in construction projects specifically through Ontario Regulation 278/05 in addition to Ontario Regulation 490/09 under the Occupational Health and Safety Act. Contractors must also adhere to Canadian Occupational Health and Safety Regulations SOR/86/304 as well as the PSPC Asbestos Management Standard. Contractors engaging in construction or demolition projects handling materials identified as having asbestos should do so in accordance with the Ontario Ministry of Labour document *A Guide to the Regulation Respecting Asbestos in Construction projects and in Buildings and Repair Operations*, which are developed from O.Reg, 278/05 *Designated Substances-Asbestos on Construction Projects and in Buildings and Repair Operations*. This includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training depending on the classification of the asbestos-containing construction task. Waste from renovations associated with asbestos-containing material must also be disposed of in accordance with O. Reg. 347 as amended.

The laboratory report indicated that none of the fifty-one (51) samples of seventeen (17) different substrates analyzed were found to exceed the regulatory limit of 0.5% asbestos content.

Recommendation 1:

No recommendation required as asbestos was not detected.

6.2. Lead

Contractors engaging in construction or demolition projects handling materials identified as having elevated lead content should do so in accordance with the Ontario Ministry of Labour document *Guideline – Lead on Construction Projects*. This includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training depending on the classification of the lead-containing construction task. Waste from renovations associated with lead-containing material must also be disposed of in accordance with O. Reg. 347 as amended.

The presence of lead was detected in eight (8) of the thirty (30) samples of paint collected throughout the Ingleside WWTP.

Recommendation 2:

All contractors who are coming on-site should be notified of the presence of lead-based paint with the requirement to follow Ontario Ministry of Labour document Guideline – Lead on Construction Projects. This includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training depending on the classification of the lead-containing construction task. Waste from renovations associated with lead-containing material must also be disposed of in accordance with O. Reg. 347 as amended.

6.3. Mercury

Mercury is likely present in minor amounts in any fluorescent lamp tubes and bulbs. Precautions should be taken near mercury containing substances if they may be disturbed.

Recommendation 3:

All contractors who are coming on-site should be notified of the potential presence of mercury at the job site. Though there is a low risk of exposure, all personnel should exercise due care and diligence if handling fluorescent tubes or other mercury containing equipment. As well, appropriate work and hygiene practices should be followed including proper PPE and training

6.4. Silica

Contractors engaging in construction or demolition projects handling materials identified as containing silica should do so in accordance with the Ontario Ministry of Labour document *Guideline – Silica on Construction Projects*. This includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training depending on the classification of the Silica-containing construction task.

Any work happening at the Ingleside WWTP which has a chance of disturbing silica containing materials **should be treated as Type 1 Operation with respect to Silica-containing construction task for work sites that require disturbance of concrete floor or masonry**. The implementation of Type 1 Measures and Procedures includes, but is not limited to, the use of half-mask particulate respirators equipped with type N, R or P-series filters with 95%, 99% and 100% efficiencies respectively and ensuring the work areas are cleaned at regular intervals and measures are taken to ensure that dust is controlled in the work area. Dry-sweeping or the use of compressed air should not be used for cleaning purposes. It is also important

to ensure that washing facilities and clothing laundering procedures are appropriate for silica dust-contaminated surfaces and laundry.

Recommendation 4:

All contractors who are coming on-site should be notified of the presence of silica with the requirement to follow Ontario Ministry of Labour document Guideline – Silica on Construction Projects. The area of concern is the concrete and mortar which can be found throughout the site as it is anticipated that numerous projects will result in the release of airborne silica. If silica dust is generated by a project, the Ministry of Labour Guideline includes, among other requirements, engineering controls, work and hygiene practices, proper PPE (including appropriate clothing, respirators and eyewear) as well as worker training.

6.5 Mould

Mould was determined to be present throughout the Administration Building. Prior to performing any construction activities in the Admin Building, the mould contamination should be abated. The contractor must be notified of the presence of mould prior to the commencement of any work. This identified area is to be abated and it should be done using the Environmental Abatement Council of Ontario (EACO) guidelines for mould abatement.

Recommendation 5:

Abate the area identified as mould using the Environmental Abatement Council of Ontario (EACO) guidelines for mould abatement.

6.6 Urea Formaldehyde Foam Insulation

Urea-formaldehyde foam insulation (UFFI) is a synthetic insulation used from the late 1930s to the 1970s. It is applied as a foam that is easily injected or pumped into walls. It becomes firm within minutes but cures within a week. When cured, it often has a dry and crumbly texture.

Urea Formaldehyde Foam Insulation (UFFI) was not detected at the sample location, either by appearance (primary method) or by analysis.

Recommendation 6:

Recommendation not required as UFFI was not determined to be present.

7. Disclosure

The conclusions were made on the best available information by trained professionals following a prescribed and recognised assessment procedure, given reasonable limits of time and cost. No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property.

This report was prepared for the sole use of EVB Engineering Ltd. Any reliance of this report by third parties is the responsibility of such parties. This firm accepts no responsibility for any damages suffered by any third parties relying on information herein.

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Appendix A – Site Pictures

Figure 1 – SLU-ATT-Insul A, B and C Sample Location

Figure 2 – SLU-2ND-Paint Yellow A Sample Location

Figure 3 – SLU-2ND-Paint Yellow B Sample Location

Figure 4 – SLU-2ND-Paint White Sample Location

Figure 5 – SLU-2ND-Paint Silver Sample Location

Figure 6 – SLU-2ND-Fan Cladding A, B and C Sample Location

Figure 7 – SLU-2ND-Spray Foam A, B and C Sample Location

Figure 8 – SLU-1ST-Paint Black Sample Location

Figure 9 - SLU-1ST-Insulation A, B and C Sample Location

Figure 10 – SLU-EXT-Paint Yellow Sample Location

Figure 11 – SLU-EXT-Caulking A, B and C Sample Location

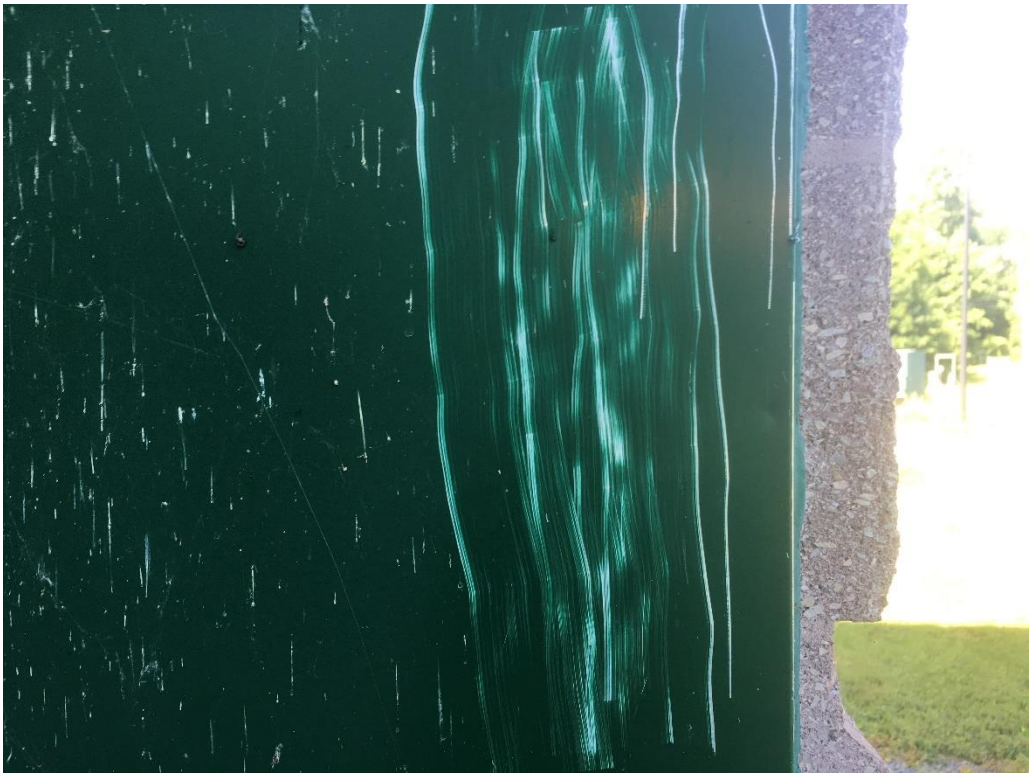


Figure 12 – SLU-EXT-Powdercoat Green Sample Location

Figure 13 – SLU-EXT-Powdercoat Black Sample Location

Figure 14 – AER-Tank-Paint Off-White Sample Location

Figure 15 – AER-Tank-Primer Sample Location

Figure 16 – Overview of CL1 in Aeration Building

Figure 17 – Observed Fiberglass Insulation, no need to sample

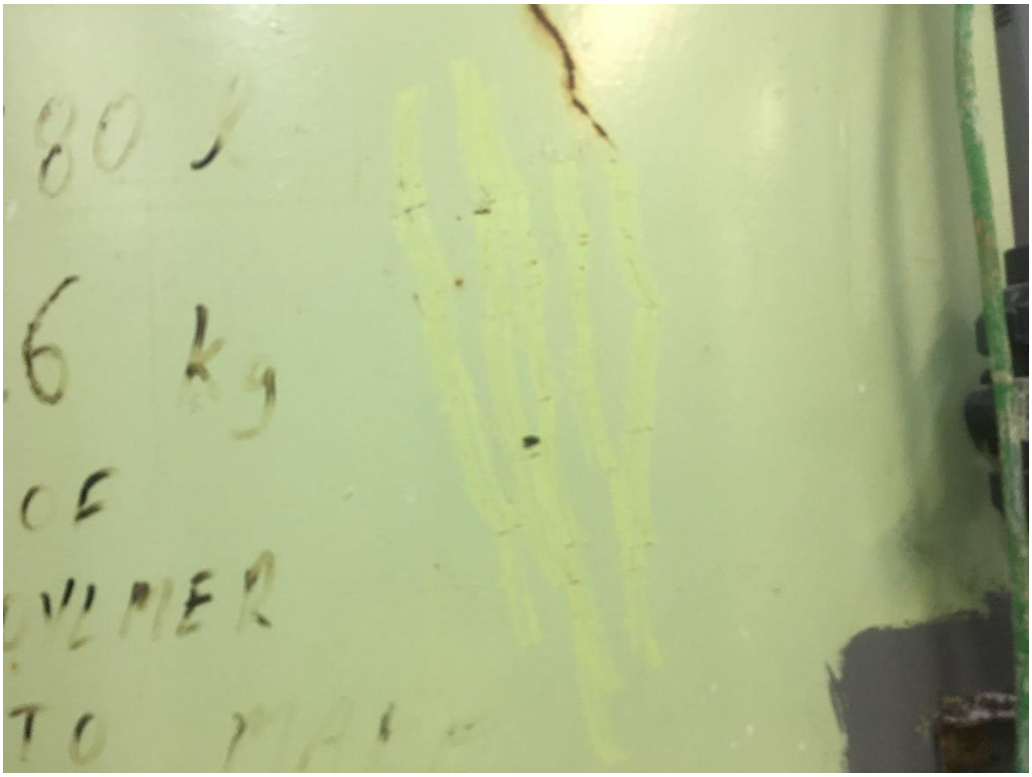


Figure 18 –AER-CL2-Pump-Paint Lt Green Sample Location

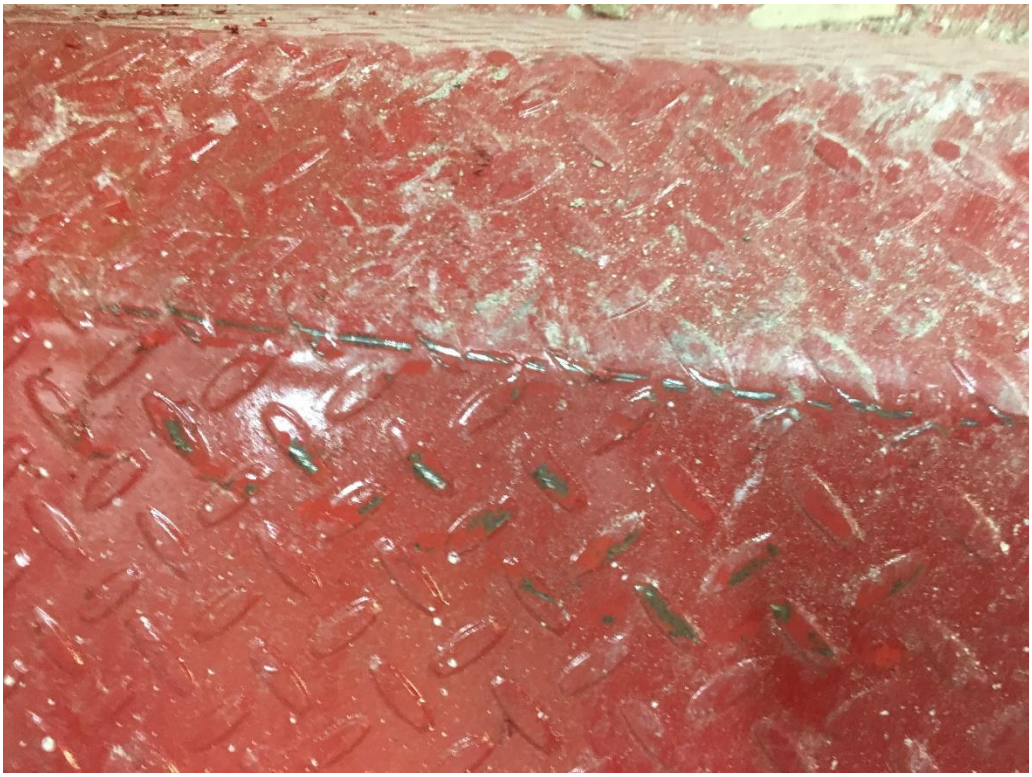


Figure 19 – AER-CL2-Paint Red Sample Location

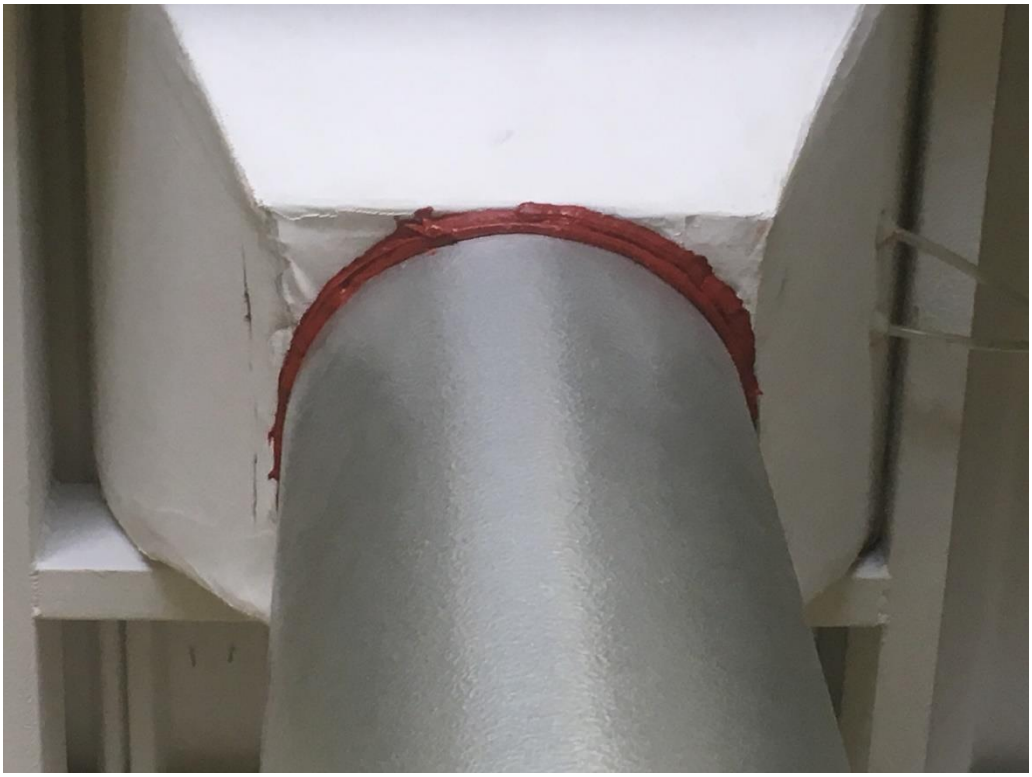


Figure 20 – Observed firestopping <5 years old, no need to sample

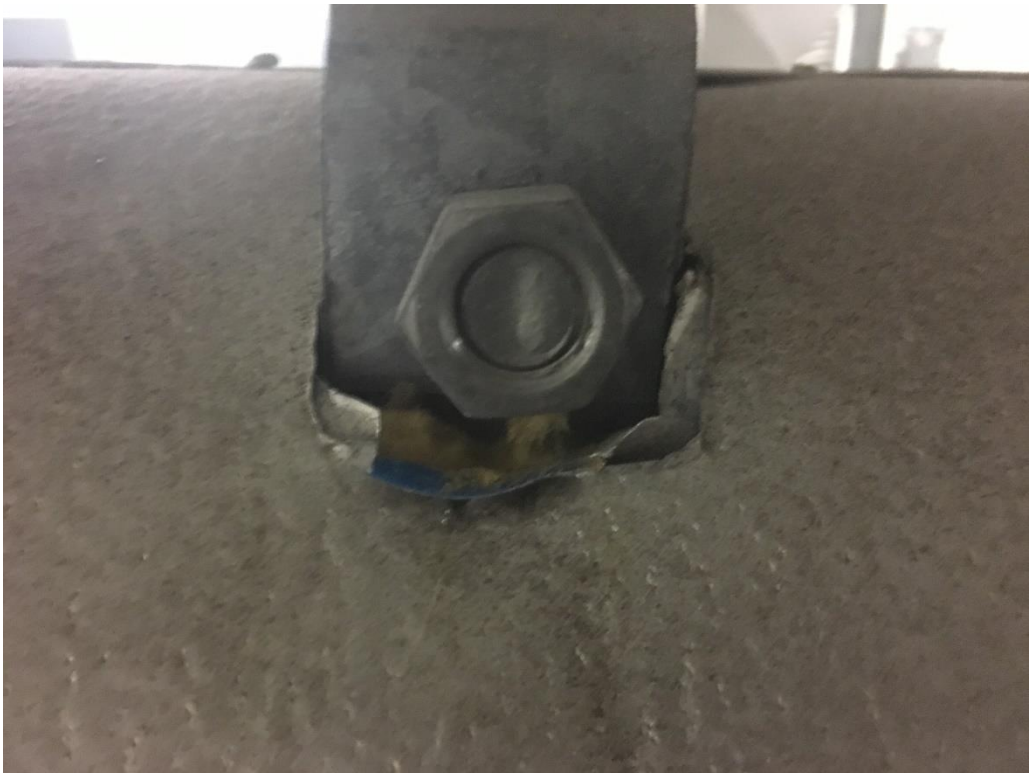


Figure 21 – Observed Fiberglass Insulation around pipe, no need to sample

Figure 22 –AER-Sludge-Paint White Sample Location

Figure 23 – AER-Basin-Paint Blue & AER-Basin-Caulking A, B and C Sample Location

Figure 24 – ADM-OFF-Floor Tile A, B and C Sample Location

Figure 25 – ADM-OFF-Paint Gold Sample Location

Figure 26 – ADM-OFF-Ceiling Tile A, B and C Sample Location

Figure 27 – ADM-OFF-Wallboard A, B and C Sample Location

Figure 28 – ADM-OFF-DWJC A, B and C Sample Location

Figure 29 – ADM-LOB-Paint White Sample Location

Figure 30 – ADM-LUN-Paint White Gloss Sample Location

Figure 31 – Observed black foam insulation around pipe, no need to sample

Figure 32 – ADM-LAB-Floor Tile A, B and C Sample Location

Figure 33 – ADM-LAB-Paint Light Blue Sample Location

Figure 34 – ADM-LAB-Paint Grey Sample Location

Figure 35 – ADM-ML-Paint Light Blue Sample Location

Figure 36 – ADM-WL-Paint Pink Sample Location

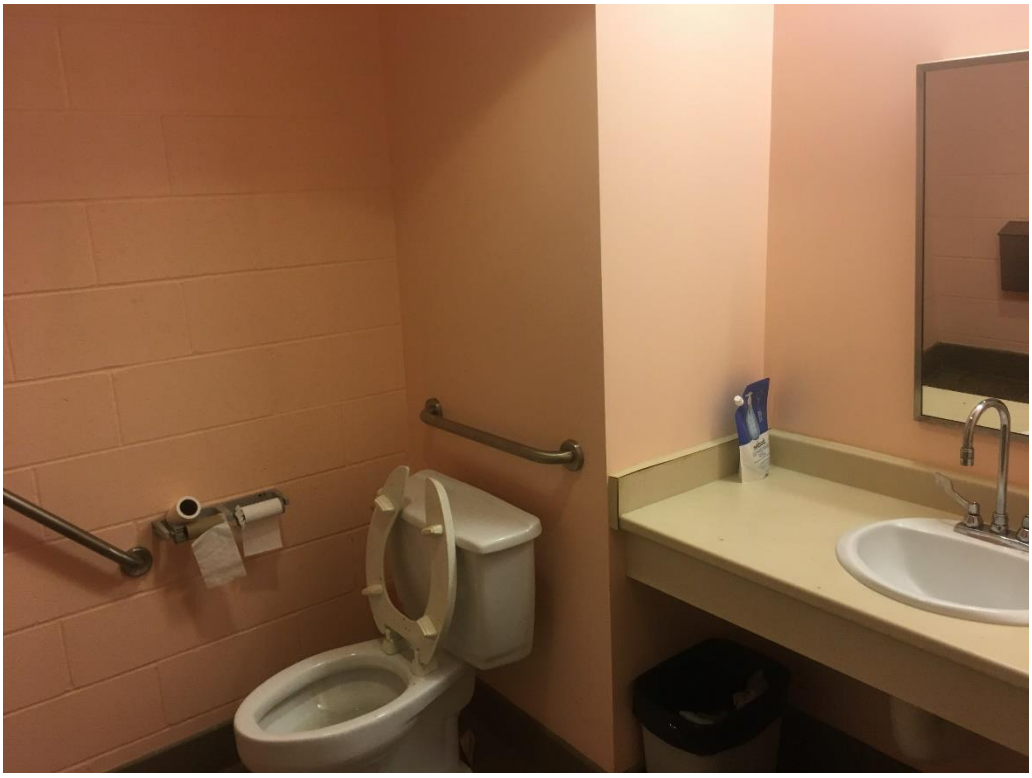


Figure 37 – Overview of Admin Building's Women's Washroom. No new materials, therefore no need to sample

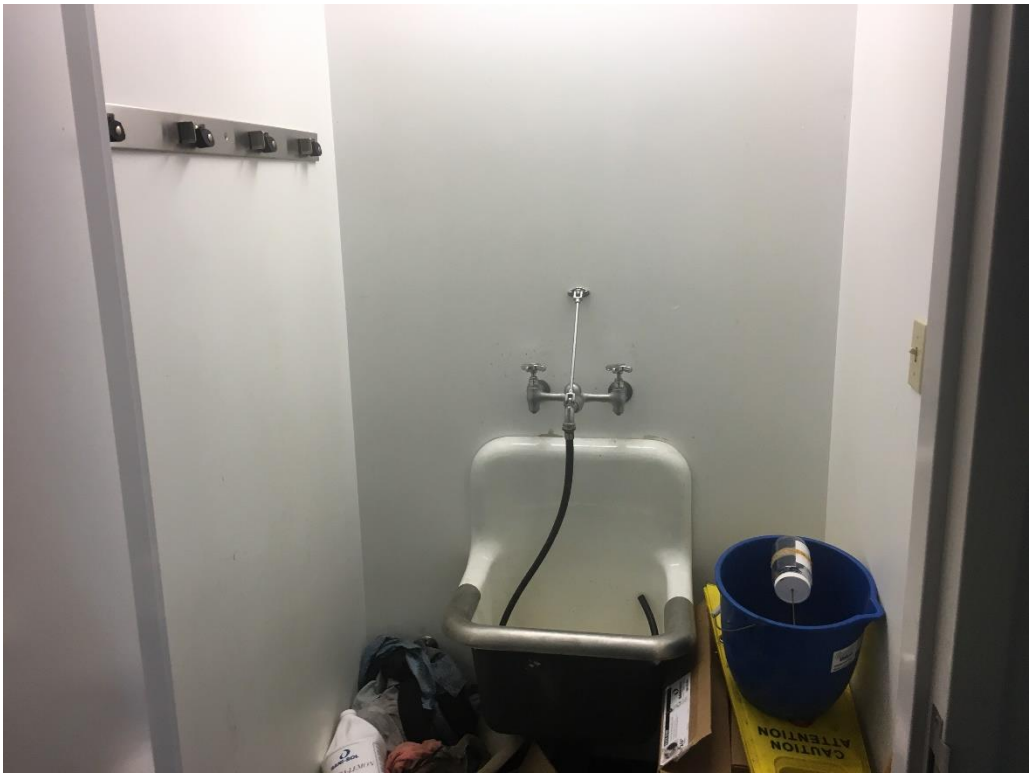


Figure 38 – Overview of Admin Building's Janitor's Closet. No new materials, therefore no need to sample

Figure 39 – ADM-MECH-Cladding A, B and C Sample Location

Figure 40 – Observed black foam insulation, no need to sample

Figure 41 – ADM-MECH-Paint White Sample Location

Figure 42 – ADM-MECH-Paint Yellow Sample Location

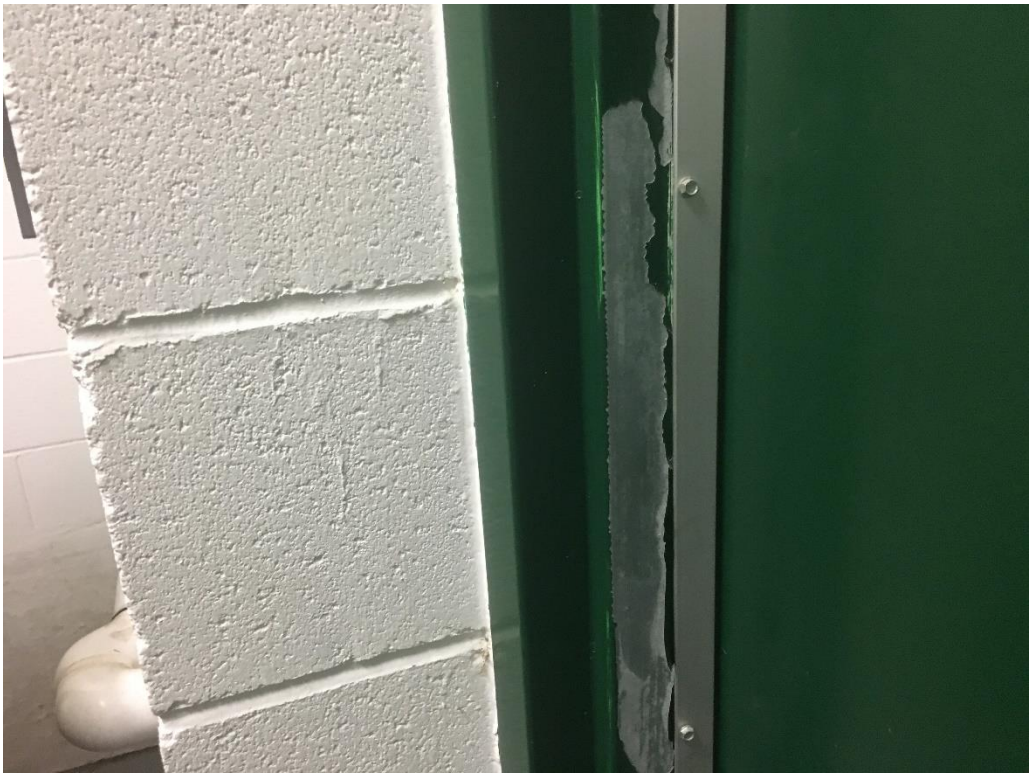


Figure 43 – ADM-ST1-Paint Green Sample Location

Figure 44 – Observed Fiberglass Insulation, no need to sample

Figure 45 – Overview of Admin Building's Storage Area #2

Figure 46 – ADM-WS-Paint White Gloss Sample Location

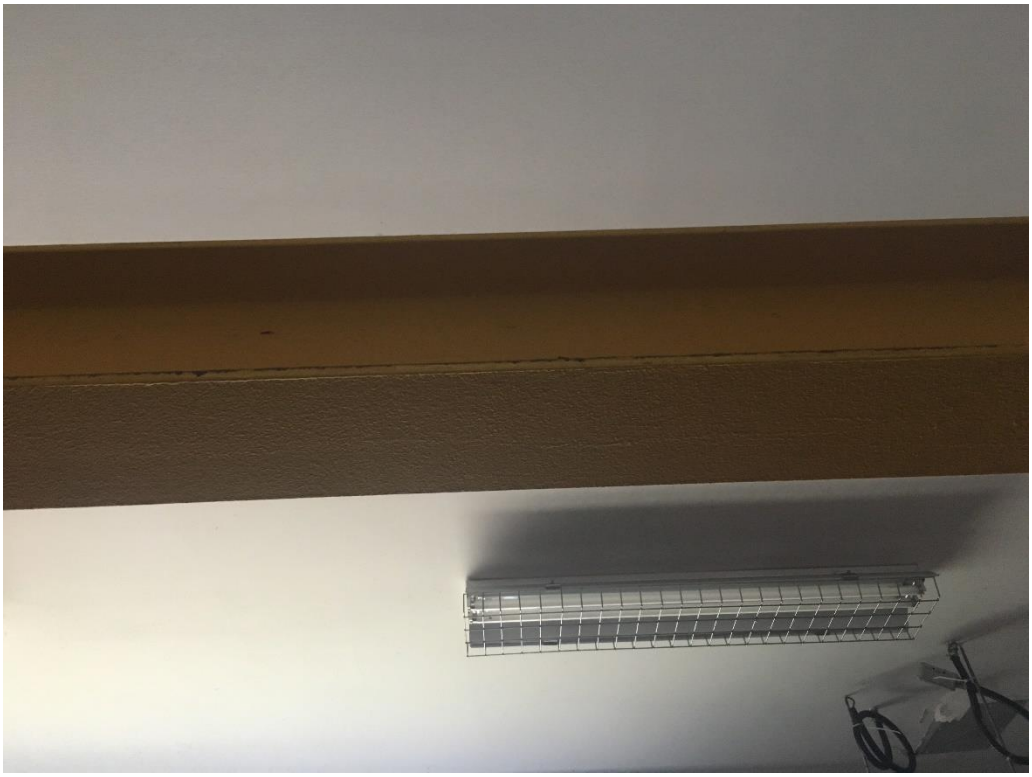


Figure 47 – ADM-WS-Paint Yellow Sample Location

Figure 48 – ADM-GEN-Caulking A, B and C Sample Location

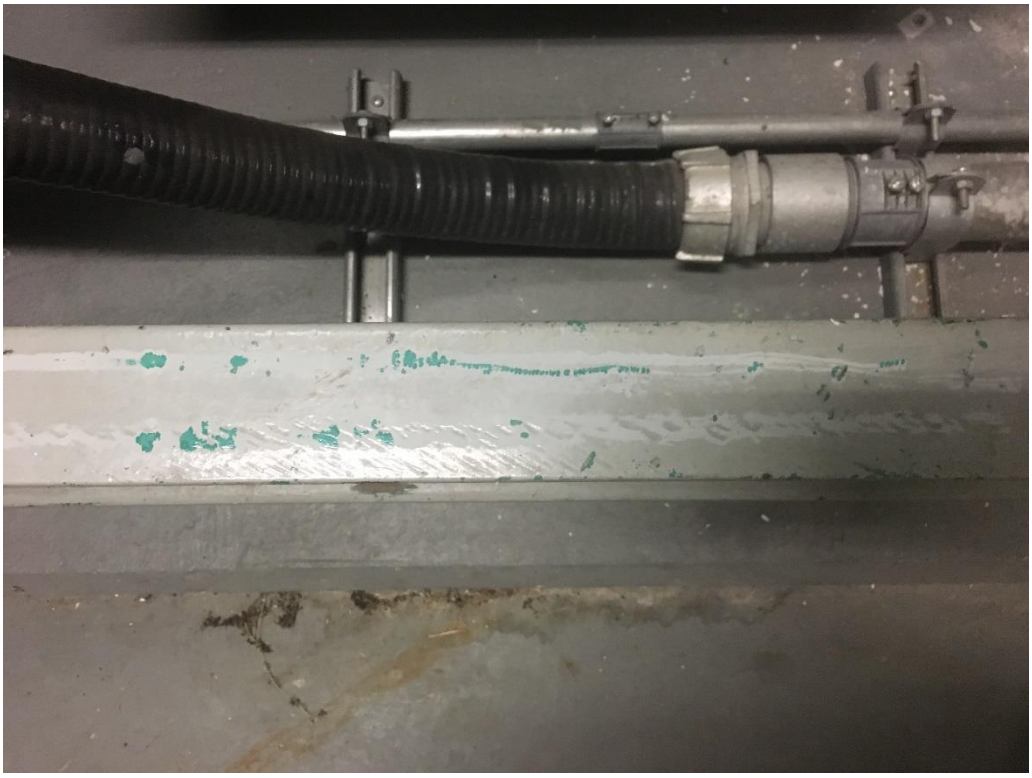


Figure 49 – ADM-GEN-Caulking A, B and C Sample Location

Figure 50 – ADM-GEN-Paint Black Sample Location

Figure 51 – ADM-GEN-Cladding2 A, B and C Sample Location

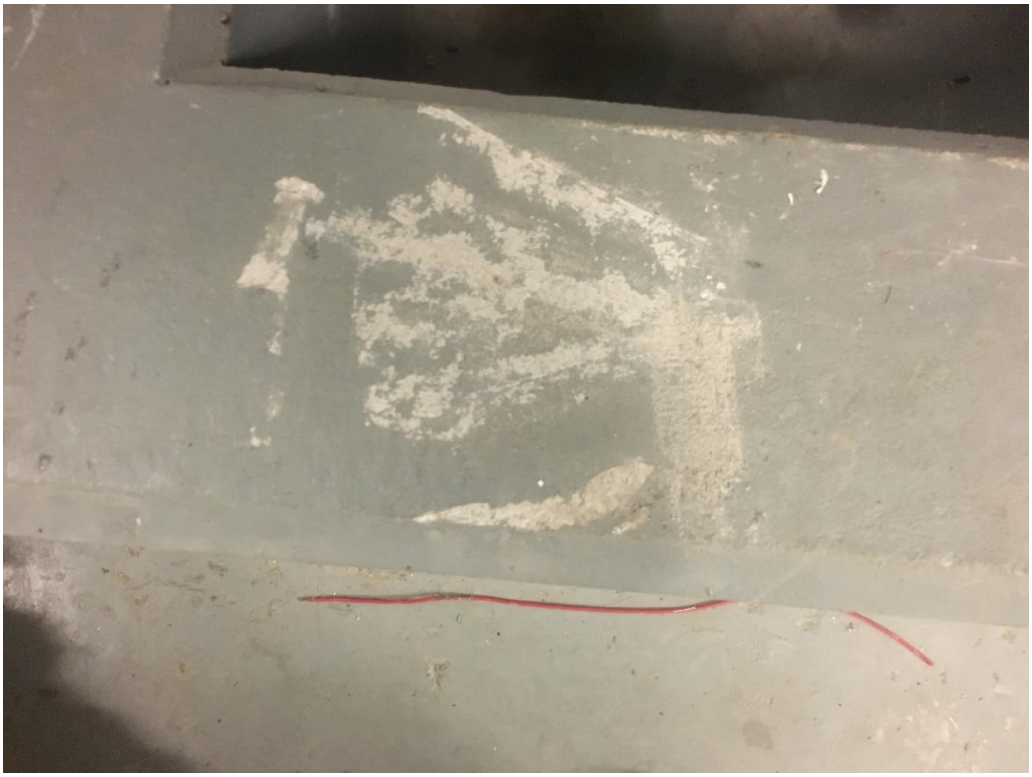


Figure 52 – ADM-GEN-Paint Grey2 Sample Location

Figure 53 – ADM-ELEC-Putty A, B and C Sample Location

Figure 54 – ADM-ELEC-INSULATION A, B and C Sample Location

Figure 55 –Admin Building's exterior foundation

Figure 56 – ADM-EXT-Coated Panel A, B and C Sample Location

Figure 57 – ADM-EXT-Firestop A, B and C Sample Location

Figure 58 – ADM-EXT-Paint Green Sample Location

Appendix B – Sample Locations

Please note that all sample numbers shown in Appendix B reference the materials found in Tables 2&3.

DWG# 01

OCATION OF UTILITIES IS APPROXIMATE ONLY.
THE EXACT LOCATION SHOULD BE DETERMINED
ONSULTING THE MUNICIPAL AUTHORITIES AND
Y COMPANIES CONCERNED. THE CONTRACTOR
PROVE THE LOCATION OF UTILITIES AND
BE RESPONSIBLE FOR ADEQUATE PROTECTION
DAMAGE DURING CONSTRUCTION.

AS BUILT

NOTE: REVISED "AS-BUILT" DRAWING. THIS DRAWING HAS BEEN REVISED TO INCORPORATE CHANGES AS INDICATED IN THE CONTRACTOR'S MARKED UP DRAWINGS. CHANGES DONE BY OWNER/OCWA WITHOUT THE CONSULTANT'S INVOLVEMENT ARE NOT INCLUDED ON THE DRAWINGS. CONTRACTOR'S DRAWINGS ARE NOT VERIFIED ON SITE BY ENGINEER. THE ENGINEER DOES NOT TAKE RESPONSIBILITY FOR INFORMATION ON THIS DRAWING THAT IS IN CONFLICT WITH THE EXISTING CONDITION DUE TO INACCURATE OR MISSING INFORMATION ON SOURCE DOCUMENTS PROVIDED.

CO-ORDINATE SYSTEM SHOWN IS BASED ON THE UNIVERSAL TRAVERSE MERCATOR GRID

GEODETIC BENCHMARK No.2891
ELEV. 79.131m
91.4m SOUTH OF LONG SAULT PARKWAY ENTRANCE. TABLET IN S.W. OR BACK CONCRETE FOUNDATION WALL. 0.55m FROM S. CORNER AND 0.37m BELOW BRICKWORK.

No.	Date	Revision
6	MARCH/96	AS BUILT
5	JUNE/96	CONTROL BUILDING REVISED
4	NOV/95	REVISED AS PER ADDENDUM No.3
3	OCT/95	ISSUED FOR TENDER
2	SEPT.15/95	ISSUED FOR REVIEW
1	JAN. 16/94	ISSUED FOR M.O.E.E. APPROVAL

McNEELY ENGINEERING CONSULTANTS LTD.

O.C.W.A. SEWAGE W...
Title LAY...
Design J.V.G. Scale AS...
Drawn E.C. Check

FOR ROAD ALIGNMENT DETAILS SEE DWG. No.G-7

B G11

BH 4.9

EAST ROAD

Sample #'s 24,25

CHEMICAL LOADING BAY

CHEMICAL BUILDING

PRIMARY AEROBIC DIGESTER

SECONDARY AEROBIC DIGESTER

BH 4.5

EQUIPMENT BUILDING

SECONDARY CLARIFIER #2

Sample #'s 26,27

FLOCCULATION BASIN

SCUM CHAMBER

EFFLUENT WATER BASIN

AERATION TANK 2

BH 4.8

Sample # 28

Sample #'s 29-32

AERATION TANK 1

SECONDARY CLARIFIER #1

BH 4.4

BH 4.2

BH 4.1

HEADWORKS

GRIT CLASSIFIER

HEADWORKS ROAD

EXISTING GARAGE TO BE DEMOLISHED

EXISTING DRYING BEDS TO BE DEMOLISHED

EQUIPMENT ROAD

SUBMERSIBLE PUMPING STATION

BH 4.7

WEST ROAD

EXISTING BUILDING TO BE DEMOLISHED

CONTROL BUILDING

BH 4.6

BH 4.3

B.M.No 2891

Sample #'s 33-84
See blow-up of Control Building for more precise locations

Sample # 22

Sample #'s 1-21, 23

CENTRIFUGE BUILDING

SOUTH ROAD

DIGESTED SLUDGE STORAGE TANK

SLUDGE LOADING PLATFORM

SLUDGE LOADING BAY

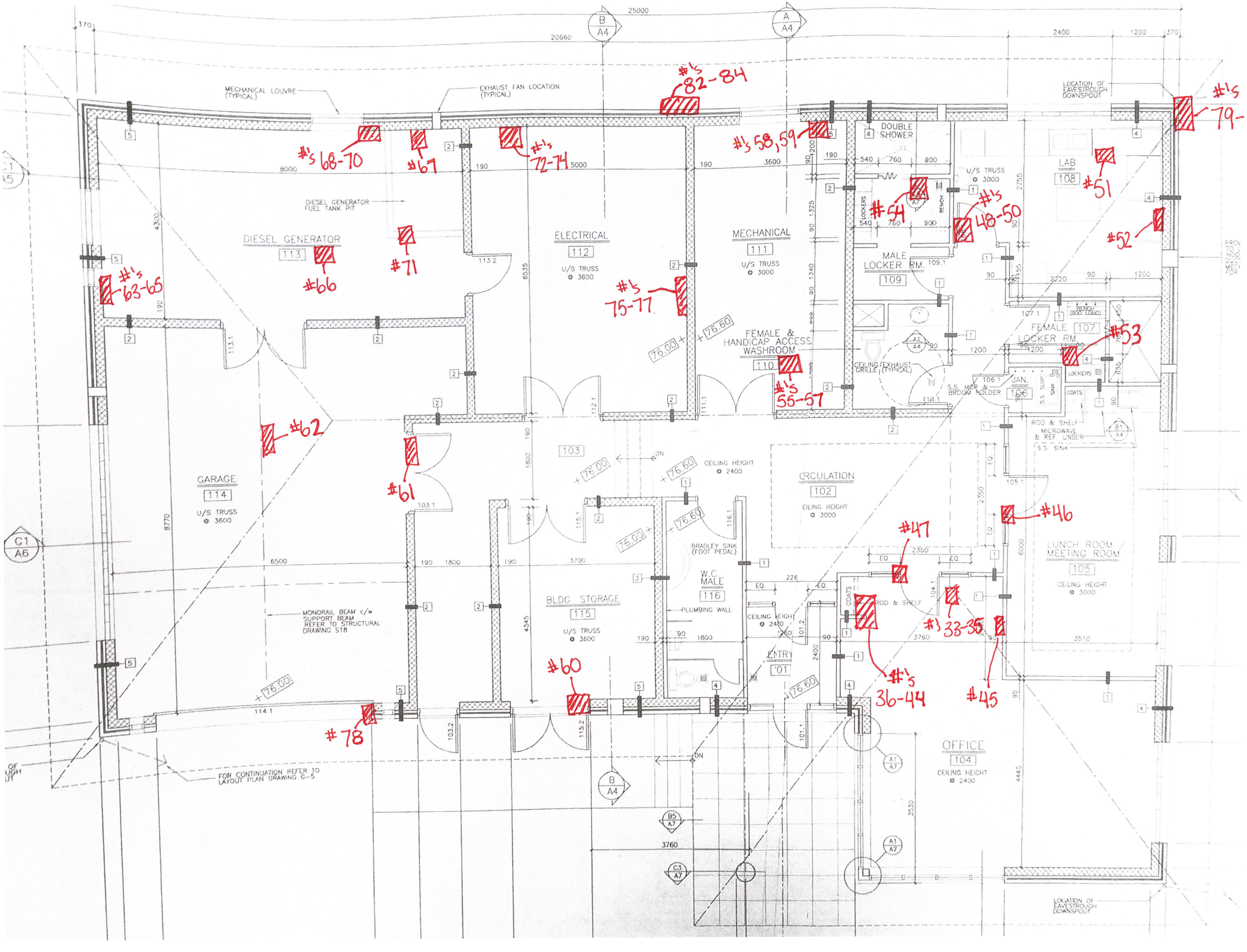
PARSHALL FLUME

VALVE CHAMBER

SUBMERSIBLE PUMPING STATION

BH 4.10

DWG#
02


#1's 82-84
#1's 79-81
#1's 68-70
#67
#1's 72-74
#1's 58,59
LOCATION OF EAVESTROUGH DOWNSPOUT
MECHANICAL LOUVRE (TYPICAL)
EXHAUST FAN LOCATION (TYPICAL)
DOUBLE SHOWER
LAB 108
#51
#1's 48-50
#54
#52
DIESEL GENERATOR FUEL TANK PIT
DIESEL GENERATOR 113
ELECTRICAL 112
MECHANICAL 111
U/S TRUSS @ 3600
U/S TRUSS @ 3000
MALE LOCKER RM. 109
#1's 63-65
#66
#71
#1's 75-77
FEMALE & HANDICAP ACCESS WASHROOM 110
#1's 55-57
CEILING/EXHAUST GRILLE (TYPICAL)
FEMALE LOCKER RM. 107
#53
JAN. 106
S.S. MOP & BROOM HOLDER
ROD & SHELF
MICROWAVE & REF. UNDER
S.S. SINK
#62
#61
GARAGE 114
103
CEILING HEIGHT @ 2400
CRCULATION 102
CEILING HEIGHT @ 3000
#46
#47
LUNCH ROOM MEETING ROOM 105
CEILING HEIGHT @ 3000
BRADLEY SINK (FOOT PEDAL)
W.C. MALE 116
PLUMBING WALL
BLDG. STORAGE 115
MONORAIL BEAM c/w SUPPORT BEAM REFER TO STRUCTURAL DRAWING S18
#1's 33-35
#60
#1's 36-44
#45
#78
ENTRY 101
OFFICE 104
CEILING HEIGHT @ 2400
FOR CONTINUATION REFER TO LAYOUT PLAN DRAWING G-5
LOCATION OF EAVESTROUGH DOWNSPOUT

Appendix C – Analytical Results

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: HSP CONSULTANTS INC.
5715 WARNER DRIVE
LONG SAULT, ON K0C1P0
(613) 932-3289

ATTENTION TO: Blake Michels

PROJECT: Ingleside Waste Water Treatment Plant

AGAT WORK ORDER: 19Z495917

ASBESTOS REVIEWED BY: Ian Seddon, Analyst

OCCUPATIONAL HYGIENE REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

DATE REPORTED: Jul 26, 2019

PAGES (INCLUDING COVER): 17

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

CLIENT NAME: HSP CONSULTANTS INC.

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Bulk Asbestos

DATE RECEIVED: 2019-07-22 **DATE REPORTED: 2019-07-26**

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: SLU-ATT-Insul A SAMPLE TYPE: Asbestos DATE SAMPLED: 2019-07-18 371897	SLU-ATT-Insul B Asbestos 2019-07-18 371918	SLU-ATT-Insul C Asbestos 2019-07-18 371919	SLU-2ND-Fan Cladding A Asbestos 2019-07-18 371926	SLU-2ND-Fan Cladding B Asbestos 2019-07-18 371927	SLU-2ND-Fan Cladding C Asbestos 2019-07-18 371928	SLU-1ST-Insulation A Asbestos 2019-07-18 371932	SLU-1ST-Insulation B Asbestos 2019-07-18 371933
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: SLU-1ST-Insulation C SAMPLE TYPE: Asbestos DATE SAMPLED: 2019-07-18 371934	SLU-EXT-Caulking A Asbestos 2019-07-18 371937	SLU-EXT-Caulking B Asbestos 2019-07-18 371938	SLU-EXT-Caulking C Asbestos 2019-07-18 371939	AER-Basin-Caulking A Asbestos 2019-07-18 372034	AER-Basin-Caulking B Asbestos 2019-07-18 372035	AER-Basin-Caulking C Asbestos 2019-07-18 372036	ADM-OFF-Floor Tile A Asbestos 2019-07-18 372037
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: ADM-OFF-Floor Tile B SAMPLE TYPE: Asbestos DATE SAMPLED: 2019-07-18 372038	ADM-OFF-Floor Tile C Asbestos 2019-07-18 372039	ADM-OFF-Ceiling Tile A Asbestos 2019-07-18 372040	ADM-OFF-Ceiling Tile B Asbestos 2019-07-18 372041	ADM-OFF-Ceiling Tile C Asbestos 2019-07-18 372042	ADM-OFF-Wallboard A Asbestos 2019-07-18 372043	ADM-OFF-Wallboard B Asbestos 2019-07-18 372044	ADM-OFF-Wallboard C Asbestos 2019-07-18 372045
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: ADM-OFF-DWJC A SAMPLE TYPE: Asbestos DATE SAMPLED: 2019-07-18 372046	ADM-OFF-DWJC B Asbestos 2019-07-18 372047	ADM OFF-DWJC C Asbestos 2019-07-18 372048	ADM-LAB-Floor Tile A Asbestos 2019-07-18 372052	ADM-LAB-Floor Tile B Asbestos 2019-07-18 372053	ADM-LAB-Floor Tile C Asbestos 2019-07-18 372054	ADM-MECH-Cladding A Asbestos 2019-07-18 372059	ADM-MECH-Cladding B Asbestos 2019-07-18 372060
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: ADM-MECH-Cladding C SAMPLE TYPE: Asbestos DATE SAMPLED: 2019-07-18 372061	ADM-GEN-Caulking A Asbestos 2019-07-18 372252	ADM-GEN-Caulking B Asbestos 2019-07-18 372253	ADM-GEN-Caulking C Asbestos 2019-07-18 372254	ADM-GEN-Cladding2 A Asbestos 2019-07-18 372257	ADM-GEN-Cladding2 B Asbestos 2019-07-18 372258	ADM-GEN-Cladding2 C Asbestos 2019-07-18 372259	ADM-ELECT-Putty A Asbestos 2019-07-18 372261
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

CLIENT NAME: HSP CONSULTANTS INC.

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Bulk Asbestos

DATE RECEIVED: 2019-07-22 **DATE REPORTED: 2019-07-26**

Parameter	Unit	G / S	RDL	ADM-ELECT-Putty B Asbestos 2019-07-18 372262	ADM-ELECT-Putty C Asbestos 2019-07-18 372263	ADM-ELECT-INSULATION A Asbestos 2019-07-18 372264	ADM-ELECT-INSULATION B Asbestos 2019-07-18 372265	ADM-ELECT-INSULATION C Asbestos 2019-07-18 372266	ADM-EXT-Coated Panel A Asbestos 2019-07-18 372268	ADM-EXT-Coated Panel B Asbestos 2019-07-18 372269	ADM-EXT-Coated Panel C Asbestos 2019-07-18 372270
		SAMPLE DESCRIPTION:									
		SAMPLE TYPE:									
		DATE SAMPLED:									
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND

Parameter	Unit	G / S	RDL	ADM-EXT-Firestop A Asbestos 2019-07-18 372271	ADM-EXT-Firestop B Asbestos 2019-07-18 372272	ADM-EXT-Firestop C Asbestos 2019-07-18 372273
		SAMPLE DESCRIPTION:				
		SAMPLE TYPE:				
		DATE SAMPLED:				
Asbestos (Bulk)	%	0.5	0.5	ND	ND	ND

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON OHSA - Reg. 278
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

371897-372273 Condition of sample was satisfactory at time of arrival in laboratory. Analysis done at AGAT 5623 McAdam Road Mississauga location.

"ND" - Not Detected

As per Reg 278/05 and AGAT SOP, all non-detect results have been analyzed and confirmed three times.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

CLIENT NAME: HSP CONSULTANTS INC.

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Lead Paint

DATE RECEIVED: 2019-07-22

DATE REPORTED: 2019-07-26

Parameter	Unit	G / S	RDL	SLU-2ND-Paint Yellow A Paint 2019-07-18 371920	SLU-2ND-Paint Yellow B Paint 2019-07-18 371922	SLU-2ND-Paint White Paint 2019-07-18 371923	SLU-2ND-Paint Silver Paint 2019-07-18 371924	SLU-1ST-Paint Black Paint 2019-07-18 371935	SLU-EXT-Paint Yellow Paint 2019-07-18 371936	SLU-EXT-Powdercoat Black Paint 2019-07-18 371940
Lead	µg/g		10	715	499	<10	104	67	109	<10

Parameter	Unit	G / S	RDL	SLU-EXT-Powdercoat Green Paint 2019-07-18 371941	RDL	AER-Tand-Paint off-white Paint 2019-07-18 371942	AER-Tand-Primer Paint 2019-07-18 371943	RDL	AER-CL2 Pump-Paint Lt Green Paint 2019-07-18 371944	RDL	AER-CL2 Paint Red Paint 2019-07-18 371945
Lead	µg/g		20	9360	10	12	66	40	43	10	14

Parameter	Unit	G / S	RDL	AER-Sludge-Paint White Paint 2019-07-18 371946	AER-Basin-Paint Blue Paint 2019-07-18 371947	ADM-OFF-Paint Gold Paint 2019-07-18 372049	ADM-LUN-Paint White Gloss Paint 2019-07-18 372050	ADM-LOB-Paint White Paint 2019-07-18 372051	ADM-LAB-Paint Grey Paint 2019-07-18 372055	RDL	ADM-LAB-Paint Light Blue Paint 2019-07-18 372056
Lead	µg/g		10	<10	31	<10	13	19	11	40	<40

Parameter	Unit	G / S	RDL	ADM-WL-Paint Pink Paint 2019-07-18 372057	ADM-ML-Paint Light Blue Paint 2019-07-18 372058	ADM-MECH-Paint White Paint 2019-07-18 372065	ADM-MECH-Paint Yellow Paint 2019-07-18 372066	ADM-ST1-Paint Green Paint 2019-07-18 372067	ADM-WS-Paint White Gloss Paint 2019-07-18 372068	ADM-WS-Paint Yellow Paint 2019-07-18 372069	ADM-GEN-Paint Grey Paint 2019-07-18 372255
Lead	µg/g		10	<10	<10	<10	2940	11	<10	48800	40

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AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

CLIENT NAME: HSP CONSULTANTS INC.

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Lead Paint

DATE RECEIVED: 2019-07-22

DATE REPORTED: 2019-07-26

				ADM-GEN-Paint		ADM-GEN-Paint	ADM-EXT-Paint	
			SAMPLE DESCRIPTION:	Black		Grey 2	Green	
			SAMPLE TYPE:	Paint		Paint	Paint	
			DATE SAMPLED:	2019-07-18		2019-07-18	2019-07-18	
Parameter	Unit	G / S	RDL	372256	RDL	372260	372267	
Lead	µg/g		20	60	10	107	19	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

371941 RDL was increased due to insufficient sample material.

371944 RDL was increased due to insufficient sample material.

372056 RDL was increased due to insufficient sample material.

372256 RDL was increased due to insufficient sample material.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
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Certificate of Analysis

AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

CLIENT NAME: HSP CONSULTANTS INC.

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Formaldehyde, Acetaldehyde and Crotonaldehyde in Soil

DATE RECEIVED: 2019-07-22

DATE REPORTED: 2019-07-26

				SLU-2ND Spray	SLU-2ND Spray	SLU-2ND Spray
		SAMPLE DESCRIPTION:		Foam A	Foam B	Foam C
		SAMPLE TYPE:		Other	Other	Other
		DATE SAMPLED:		2019-07-18	2019-07-18	2019-07-18
Parameter	Unit	G / S	RDL	371929	371930	371931
Formaldehyde	mg/kg		0.01	7.50	25.9	13.0
Acetaldehyde	mg/kg		0.01	<0.01	<0.01	<0.01
Crotonaldehyde	mg/kg		0.01	<0.01	<0.01	<0.01

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

371929-371931 Non-accredited test. Inquire with lab for details.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By: _____

AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: HSP CONSULTANTS INC.

AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Occupational Hygiene Analysis

RPT Date: Jul 26, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Lead Paint															
Lead	372057	372057	<10	<10	NA	< 10	99%	80%	120%	95%	80%	120%	103%	70%	130%
Lead Paint															
Lead	371916		569	582	2.3%	< 10	97%	80%	120%	102%	80%	120%	96%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL

Certified By: Amanjot Bhela

CHARTERED CHEMIST AMANJOT BHELA — ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: HSP CONSULTANTS INC.

AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

Trace Organics Analysis

RPT Date: Jul 26, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Formaldehyde, Acetaldehyde and Crotonaldehyde in Soil															
Formaldehyde	252	371929	07.50	7.72	2.9%	< 0.01	109%	80%	120%	96%	70%	130%	96%	60%	140%
Acetaldehyde	252	371929	<0.01	<0.01	NA	< 0.01	106%	80%	120%	99%	70%	130%	99%	60%	140%
Crotonaldehyde	252	371929	<0.01	<0.01	NA	< 0.01		80%	120%	97%	70%	130%	97%	60%	140%

Comments: If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.
The sample spikes and dups are not from the same sample ID.

Certified By: _____

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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TEL (905)712-5100
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Method Summary

CLIENT NAME: HSP CONSULTANTS INC.

AGAT WORK ORDER: 19Z495917

PROJECT: Ingleside Waste Water Treatment Plant

ATTENTION TO: Blake Michels

SAMPLING SITE:Ingleside

SAMPLED BY:B.Michels/G.Houze

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Asbestos (Bulk)	INORG 93-6010	EPA 600/R-93/116 & NIOSH 9002	PLM
Occupational Hygiene Analysis			
Lead	MET-93-6106	EPA SW 846 3050B & 6010C	ICP/OES
Trace Organics Analysis			
Formaldehyde	TO-1330	OSHA 52/EPA 8315/EPA 556	HPLC
Acetaldehyde	TO-1330	OSHA 52/EPA 8315/EPA 556	HPLC
Crotonaldehyde	TO-1330	OSHA 52/EPA 8315/EPA 556	HPLC

1 large

AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Laboratory Use Only

Work Order #: 1924955917

Cooler Quantity:

Arrival Temperatures: 21.4 | 24.0 | 22.3

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: no ice

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: H.S.P. Consultants Inc.
Contact: Blake Michels/Graham Houze
Address: 5715 Warner Drive
Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax:
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Regulatory Requirements:

☑ No Regulatory Requirement

(Please check all applicable boxes)

☐ Regulation 153/04
Table (Indicate One) ☐Ind/Com ☐Res/Park ☐Agriculture
Soil Texture (Check One) ☐Coarse ☐Fine

☐ Sewer Use
☐Sanitary ☐Storm
Region (Indicate One) ☐MISA

☐ Regulation 558
☐CCME
☐Prov. Water Quality Objectives (PWQO)
☐Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐All Metals ☐153 Metals (excl. Hydrides) ☐Hydride Metals ☐153 Metals (Incl. Hydrides))	O. Reg 153: ORPs: ☐B-HWS ☐Cr ☐CN ☐Cr^{6+} ☐EC ☐FOC ☐Hg ☐pH ☐SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐TP ☐NH_3 ☐TKN ☐NO_3 ☐NO_2 ☐NO_3+NO_2	O. Reg 153: Volatiles: ☐VOC ☐BTEX ☐THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐Total ☐Aroclors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐M&I ☐VOCs ☐ABNs ☐B(a)P ☐PCBs	O. Reg 153: Sewer Use	Asbestos	Lead in Paint	Foarmaldehyde			Potentially Hazardous or High Concentration (Y/N)
SLU-ATT-Insul A	7/18/19		1																		☑						
SLU-ATT-Insul B	7/18/19		1																		☑						
SLU-ATT-Insul C	7/18/19		1																		☑						
SLU-2ND-Paint Yellow A	7/18/19		1	P																		☑					
SLU-2ND-Paint Yellow B	7/18/19		1	P																		☑					
SLU-2ND Paint White	7/18/19		1	P																		☑					
SLU-2ND-Paint Silver	7/18/19		1	P																	☑						
SLU-2ND-Fan Cladding A	7/18/19		1																		☑						
SLU-2ND Fan Cladding B	7/18/19		1																		☑						
SLU-2ND Fan Cladding C	7/18/19		1																		☑						
SLU-2ND Spray Foam A	7/18/19		1		Expanded foam																			☑			

Samples Relinquished By (Print Name and Sign): Graham Houze	Date 7/19/19	Time	Samples Received By (Print Name and Sign): Jeff Jones	Date 22/Jul/19	Time 0755
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign): Asdul	Date Jul 23/2019	Time 10:27
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 8

N°: T 041683

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

Date Issued: March 20, 2019

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only
Work Order #: _____
Cooler Quantity: _____
Arrival Temperatures: _____
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes: _____

Report Information:
Company: H.S.P. Consultants Inc.
Contact: B;ake Michels/Graham Houze
Address: 5715 Warner Drive
Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax: _____
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Regulatory Requirements:
(Please check all applicable boxes)
☑ No Regulatory Requirement

☐ Regulation 153/04
Table _____ (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region _____ (Indicate One)
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
_____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Turnaround Time (TAT) Required:
Regular TAT ☑ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply): _____
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Project Information:
Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: _____ PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:
Bill To Same: Yes ☑ No ☐
Company: _____
Contact: _____
Address: _____
Email: _____

Sample Matrix Legend
B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics	O. Reg 153: All Metals ☐ 153 Metals (excl. Hydrides)	O. Reg 153: Hydride Metals ☐ 153 Metals (incl. Hydrides)	O. Reg 153: ORPs: ☐ B-HWS ☐ Cr ☐ CN⁻	O. Reg 153: ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg	O. Reg 153: ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Asbestos	Lead in Paint	Foarmaldehyde			Potentially Hazardous or High Concentration (Y/N)
SLU-2NDSpray Foam B	7/18/19		1		Expanded foam																				☑				
SLU-2ND-Spray Foam C	7/18/19		1		Expanded foam																				☑				
SLU-1ST-Insulation A	7/18/19		1		Hose insulation																				☑				
SLU-1ST-Insulation B	7/18/19		1		Hose insulation																				☑				
SLU-1ST-Insulation C	7/18/19		1		Hose insulation																				☑				
SLU-1ST-Paint Black	7/18/19		1	P																						☑			
SLU-EXT-Paint Yellow	7/18/19		1	P	Bollard																					☑			
SLU-EXT-Caulking A	7/18/19		1																						☑				
SLU-EXT-Caulking B	7/18/19		1																						☑				
SLU-EXT-Caulking C	7/18/19		1																						☑				
SLU-EXT-Powdercoat Black	7/18/19		1	P																						☑			

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	
Graham Houze	7/19/19					
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Page 2 of 8
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	N°: T 041683

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

Date Issued: March 27, 2019

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: H.S.P. Consultants Inc.
Contact: Blake Michels/Graham Houze
Address: 5715 Warner Drive
Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax:
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Project Information:

Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

☑ No Regulatory Requirement
(Please check all applicable boxes)

☐ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Sewer Use
☐ Sanitary ☐ Storm
Region (Indicate One) ☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #:
Cooler Quantity:
Arrival Temperatures:
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics; All Metals; 153 Metals (excl. Hydrides); 153 Metals (incl. Hydrides); Hydride Metals; ORPs: B-HWS, Cl⁻, CN⁻, Cr^{6+}, EC, FOC, Hg, pH, SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: TP, NH_3, TKN, NO_3, NO_2, NO_3+NO_2	Volatiles: VOC, BTEX, THM	PHCs F1 - F4	ABNs	PAHs	PCBs: Total, Aroclors	Organochlorine Pesticides	TCLP: M&I, VOCs, ABNs, B(a)P, PCBs	Sewer Use	Asbestos	Lead in Paint	Potentially Hazardous or High Concentration (Y/N)
SLU-EXT-Powdercoat Green	7/18/19		1	P															☑	
AER-Tand-Paint off-white	7/18/19		1	P															☑	
AER-Tank-Primer	7/18/19		1	P															☑	
AER-CL2 Pump-Paint Lt Green	7/18/19		1	P															☑	
AER-CL2-Paint Red	7/18/19		1	P															☑	
AER-Sludge-Paint White	7/18/19		1	P															☑	
AER-Basin-Paint Blue	7/18/19		1	P														☑		
AER- Basin-Caulking A	7/18/19		1															☑		
AER-Basin-Caulking B	7/18/19		1															☑		
AER-BASIN-Caulking C	7/18/19		1															☑		
ADM-OFF-Floor Tile A	7/18/19		1															☑		

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Graham Houze	7/19/19				

Page 3 of 8
No: T 041683

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

Date Issued: March 22, 2019

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: _____

Cooler Quantity: _____

Arrival Temperatures: _____ _____

_____ _____

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: _____

Report Information:

Company: H.S.P. Consultants Inc.

Contact: Blake Michels/Graham Houze

Address: 5715 Warner Drive
Long Sault, ON K0C 1P0

Phone: 613-932-3289x222 Fax: _____

Reports to be sent to:

1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Regulatory Requirements:

☑ No Regulatory Requirement

(Please check all applicable boxes)

☐ Regulation 153/04
Table _____ *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region _____ *Indicate One*
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
_____ *Indicate One*

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: Ingleside Waste Water Treatment Plant

Site Location: Ingleside

Sampled By: B.Michels/G.Houze

AGAT Quote #: _____ PO: _____

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company: _____

Contact: _____

Address: _____

Email: _____

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ CN⁻ ☐ Cr⁶⁺ ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	O. Reg 153: Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☐ Total ☐ Aroclors	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 153: Sewer Use	Asbestos	Lead in Paint				Potentially Hazardous or High Concentration (Y/N)
ADM-OFF-Floor Tile B	7/18/19		1																	☑					
ADM-OFF-Floor Tile C	7/18/19		1																	☑					
ADM-OFF-Ceiling Tile A	7/18/19		1																	☑					
ADM-OFF-Ceiling Tile B	7/18/19		1																	☑					
ADM-OFF-Ceilling Tile C	7/18/19		1																	☑					
ADM-OFF-Wallboard A	7/18/19		1																	☑					
ADM-OFF-Wallboard B	7/18/19		1																	☑					
ADM-OFF-Wallboard C	7/18/19		1																	☑					
ADM-OFF-DWJC A	7/18/19		1																	☑					
ADM-OFF-DWJC B	7/18/19		1																	☑					
ADM OFF-DWJC C	7/18/19		1																	☑					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	
Graham Houze	7/19/19					
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Page 4 of 8
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	N°: T 041683

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only
Work Order #: _____
Cooler Quantity: _____
Arrival Temperatures: _____
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes: _____

Report Information:
Company: H.S.P. Consultants Inc.
Contact: Blake Michels/Graham Houze
Address: 5715 Warner Drive, Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax:
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Regulatory Requirements:
☑ No Regulatory Requirement
(Please check all applicable boxes)

☐ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Sewer Use
☐ Sanitary ☐ Storm
Region (Indicate One) ☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Turnaround Time (TAT) Required:
Regular TAT ☑ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply): _____
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Project Information:
Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: _____ PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:
Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Sample Matrix Legend
B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N (Field Filtered - Metals, Hg, CrVI)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ Cr ☐ CN⁻ ☐ Cr⁶⁺ ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Asbestos	Lead in Paint				Potentially Hazardous or High Concentration (Y/N)
ADM-OFF-Paint Gold	7/18/19		1	P																		☑				
ADM-LUN-Paint White Gloss	7/18/19		1	P																		☑				
ADM-LOB-Paint White	7/18/19		1	P																		☑				
ADM-LAB-Floor Tile A	7/18/19		1																		☑					
ADM-LAB-Floor Tile B	7/18/19		1																		☑					
ADM-LAB-Floor Tile C	7/18/19		1																		☑					
ADM-LAB-Paint Grey	7/18/19		1	P																		☑				
ADM-LAB-Paint Light Blue	7/18/19		1	P																		☑				
ADM-WL-Paint Pink	7/18/19		1	P																		☑				
ADM-ML-Paint Light Blue	7/18/19		1	P																		☑				
ADM-MECH-Cladding A	7/18/19		1																		☑					

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Graham Houze	7/19/19				
Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time

Page 5 of 8
N°: T 041683

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: _____

Cooler Quantity: _____

Arrival Temperatures: _____ _____ _____ _____

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: _____

Report Information:

Company: H.S.P. Consultants Inc.
Contact: B;ake Michels/Graham Houze
Address: 5715 Warner Drive
Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax: _____
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Regulatory Requirements:

☑ No Regulatory Requirement

(Please check all applicable boxes)

☐ Regulation 153/04
Table _____ *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region _____ *Indicate One*
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
_____ *Indicate One*

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: _____ PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company: _____
Contact: _____
Address: _____
Email: _____

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐All Metals ☐153 Metals (excl. Hydrides) ☐Hydride Metals ☐153 Metals (incl. Hydrides))	O. Reg 153: ORPs: ☐B-HWS ☐Cr ☐CN⁻ ☐Cr⁶⁺ ☐EC ☐FOC ☐Hg ☐pH ☐SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐TP ☐NH_3 ☐TKN ☐NO_3 ☐NO_2 ☐NO_3+NO_2	Volatiles: ☐VOC ☐BTEX ☐THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐Total ☐Aroclors	Organochlorine Pesticides	TCLP: ☐M&I ☐VOCs ☐ABNs ☐B(a)P ☐PCBs	Sewer Use	Asbestos	Lead in Paint				Potentially Hazardous or High Concentration (Y/N)
ADM-MECH-Cladding B	7/18/19		1																	☑						
ADM-MECH-Cladding C	7/18/19		1																	☑						
ADM-MECH-Paint White	7/18/19		1																		☑					
ADM-MECH-Paint Yellow	7/18/19		1	P																	☑					
ADM-ST1-Paint Green	7/18/19		1	P																	☑					
ADM-WS-Paint White Gloss	7/18/19		1	P																	☑					
ADM-WS-Paint Yellow	7/18/19		1	P																	☑					
ADM-GEN-Caulking A	7/18/19		1																	☑						
ADM-GEN-Caulking B	7/18/19		1																	☑						
ADM-GEN-Caulking C	7/18/19		1																	☑						
ADM-GEN-Paint Grey	7/18/19		1	P																	☑					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	
Graham Houze	7/19/19					
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Page 6 of 8
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	N°: T 041683

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: _____

Cooler Quantity: _____

Arrival Temperatures: _____ _____ _____ _____

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: _____

Report Information:

Company: H.S.P. Consultants Inc.
Contact: Blake Michels/Graham Houze
Address: 5715 Warner Drive
Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax: _____
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Regulatory Requirements:

☑ No Regulatory Requirement

(Please check all applicable boxes)

☐ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Sewer Use
☐ Sanitary ☐ Storm
Region (Indicate One) ☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply): _____

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: _____ PO: _____
Please note: if quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company: _____
Contact: _____
Address: _____
Email: _____

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics	All Metals ☐ 153 Metals (excl. Hydrides)	Hydride Metals ☐ 153 Metals (incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl ☐ CN	Cr⁶⁺ ☐ EC ☐ FOC ☐ Hg	pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_2+NO_3	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Asbestos	Lead in Paint				Potentially Hazardous or High Concentration (Y/N)
ADM-GEN-Paint Black	7/18/19		1	P																				☑				
ADM-GEN-Cladding2 A	7/18/19		1																					☑				
ADM-GEN-Cladding2 B	7/18/19		1																					☑				
ADM-GEN-Cladding2 C	7/18/19		1																					☑				
ADM-GEN-Paint Grey 2	7/18/19		1	P																					☑			
ADM-ELEC-Putty A	7/18/19		1																					☑				
ADM-ELEC-Putty B	7/18/19		1																					☑				
ADM-ELEC-Putty C	7/18/19		1																					☑				
ADM-ELEC-INSULATION A	7/18/19		1																					☑				
ADM-ELEC-INSULATION B	7/18/19		1																					☑				
ADM-ELEC-INSULATION C	7/18/19		1																					☑				

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Graham Houze	7/19/19				
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

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Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

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Report Information:

Company: H.S.P. Consultants Inc.
Contact: Blake Michels/Graham Houze
Address: 5715 Warner Drive
Long Sault, ON K0C 1P0
Phone: 613-932-3289x222 Fax:
Reports to be sent to:
1. Email: bmichels@hsp.ca
2. Email: ghouze@hsp.ca

Project Information:

Project: Ingleside Waste Water Treatment Plant
Site Location: Ingleside
Sampled By: B.Michels/G.Houze
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

☑ No Regulatory Requirement
(Please check all applicable boxes)

☐ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Sewer Use
☐ Sanitary ☐ Storm
Region (Indicate One) ☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Laboratory Use Only

Work Order #:
Cooler Quantity:
Arrival Temperatures:
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply):
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N (Field Filtered - Metals, Hg, CrVI)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides))	ORPs: ☐ B-HWS ☐ Cl⁻ ☐ CN⁻ ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Asbestos	Lead in Paint					Potentially Hazardous or High Concentration (Y/N)
ADM-EXT-Paint Green	7/18/19		1	P																	☑						
ADM-EXT-Coated Panel A	7/18/19		1																		☑						
ADM-EXT-Coated Panel A	7/18/19		1																		☑						
ADM-EXT-Coated Panel A	7/18/19		1																		☑						
ADM-EXT-Firestop A	7/18/19		1																		☑						
ADM-EXT-Firestop B	7/18/19		1																		☑						
ADM-EXT-Firestop C	7/18/19		1																		☑						
	7/18/19		1																								
	7/18/19		1																								
	7/18/19		1																								
	7/18/19		1																								

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Graham Houze	7/19/19				
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

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