SOIL-MAT ENGINEERS & CONSULTANTS LTD.

www.soil-mat.ca info@soil-mat.ca TF: 800.243.1922

Hamilton: 130 Lancing Drive L8W 3A1 T: 905.318.7440 F: 905.318.7455
Milton: PO Box 40012 Derry Heights PO L9T 7W4 T: 800.243.1922

PROJECT NO.: SM 200154-E

June 30, 2020

LOSANI HOMES
430 McNeilly Road – Suite 203
Stoney Creek, Ontario
L8E 5E3

Attention: Mr. Brandon Almeida
Land Development Coordinator

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
141 – 149 MAIN STREET EAST
GRIMSBY, ONTARIO

Dear Mr. Almeida,

1.0 EXECUTIVE SUMMARY

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by Losani Homes to undertake Phase Two ESA activities on the above captioned property. It is noted that the Phase Two ESA activities were conducted in accordance with Ontario Regulation 153/04 [as amended] to support the filing of a Record of Site Condition [RSC] for the property.

The Phase Two ESA fieldwork included the advancement of fourteen [14] boreholes on the property to facilitate the collection and submission of select soil and groundwater samples for laboratory analytical testing.

Based on SOIL-MAT ENGINEERS' field observations and the analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:

- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [Specifically Cadmium, Zinc, and Lead] at five [5] borehole locations on the Site in the upper approximately 0.8 metres below ground surface.
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for Electrical Conductivity [EC] and/or Sodium Adsorption Ratio [SAR] at five [5] borehole locations on the Site in the upper approximately 1.5 metres below ground surface.
- The remaining secured soil samples all reportedly meet the applicable site condition standards [SCSs] for the select tested contaminants of potential concern [COPCs].
- The laboratory analytical test results for the submitted ground water samples are all below the applicable Table 7 NPGW Standards for the selected test parameters.

The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.

As stated above, select Metal exceedances has been identified within the soil medium. These exceedances include Cadmium, Lead, and Zinc at five [5] borehole locations. The elevated levels of the select Metals were exhibited from the ground surface down to approximately 0.8 m bgs. It is noted that these exceedances were not fully delineated during these Phase Two ESA activities and as such additional delineation activities are warranted.

With respect to the soil exhibiting elevated electrical conductivity [EC] and sodium adsorption ratio [SAR] levels, under the current RSC Regulation [Ontario Regulation 153/04, as amended], the specific contaminant of concern 'EC' and/or 'SAR' is deemed not to be exceeded if it has been determined that the elevated level of the EC is a result of a substance applied to surfaces for the safety of vehicular or pedestrian traffic.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

2.0 INTRODUCTION

SOIL-MAT ENGINEERS were retained by LOSANI HOMES to undertake a Phase Two Environmental Site Assessment [ESA] on the above captioned property. It is noted that the Phase Two ESA activities were conducted in accordance with Ontario Regulation 153/04 [as amended] to support the filing of a Record of Site Condition [RSC] for the property.

A Phase One ESA was previously prepared by SOIL-MAT ENGINEERS for the property, and was utilised in determining the rationale for these Phase Two ESA activities [refer to SOIL-MAT ENGINEERS' Report No.: SM 200100-E dated April 2, 2020].

Our fieldwork, laboratory testing and interpretation in connection with the assessment activities has been finalised and our comments and recommendations, based on our findings, are presented in the following paragraphs.

The subject property is herein referred to as the *Site*.

2.0 (i) SITE DESCRIPTION

The Phase Two property is comprised of three [3] contiguous parcels of land, that together comprise an irregular shaped parcel of land on the northwest corner of Main Street East and Wentworth Drive in the Town of Grimsby, Ontario. For descriptive purposes Main Street East has been designated as having an east-west alignment.

At the time of this Report, the 141 Main Street East property was occupied by a 1½ storey commercial building with a basement level. The remainder of the Phase Two property was comprised of an asphaltic-concrete covered surface on the southern portion, and a gravel covered area on the northern portion the property. In addition, a large storage shed was located to the northwest of the Site building.

The 147 Main Street East property was occupied by a two [2] storey commercial building with a basement level, with a single storey addition to the northwest of the building. The remainder of the Phase Two property was comprised of an asphaltic-concrete covered surface on the southern portion and a gravel covered area on the northern portion.

The northern portion of the above two parcels of land had a metal framing system present to support an existing nursery / green house operation's watering distribution lines and associated "greenhouse" plastic sheet coverings.

The 149 Main Street East property was comprised of an asphaltic-concrete covered surface utilised for parking.

The Phase Two property was bounded to the north by residential development, to the east by Wentworth Drive, to the south by Main Street East and to the west by residential lands.

The Site is recognised with the following municipal addresses:

1. 141 Main Street East, Grimsby, Ontario [Property Identification Number '46028-0273'.
2. 147 Main Street East, Grimsby, Ontario [Property Identification Number '46028-0171'.
3. 149 Main Street East, Grimsby, Ontario [Including the group of Property Identification Numbers identified as '46028-0172' and '46028-0173'.

The area of the Phase Two property is 0.8918 hectares in total.

2.0 (ii) PROPERTY OWNERSHIP

At the time of this report, the Phase Two property was owned by Losani Homes (1998) Ltd. The contact information for the owner is provided below:

1. Contact Name: Mr. Brandon Almeida
2. Mailing Address: 430 McNeilly Road – Suite 203, Stoney Creek, Ontario, L8E 5E3
3. Contact e-mail: BAlmeida@losanihomes.com
4. Contact Phone: 905-561-1700

2.0 (iii) CURRENT AND PROPOSED FUTURE USE

Current Use: Commercial
Proposed Use: Residential

Based on the current use and the proposed use of the Site, the proposed development is subject to a mandatory Record of Site Condition [RSC].

2.0 (iv) APPLICABLE SITE CONDITION STANDARDS

The following criteria was utilised to determine the appropriate site classification and applicable soil and groundwater standards.

- Current land use: Commercial;
- Intended land use: Residential;
- Drinking Water Supply: Non-Potable Ground Water;
- On-site Soil Texture: Coarse Grained Soils;
- Depth to Bedrock: 0.8 to 1.9 metres;
- pH of soils on the Site: Within the Applicable Generic Site Condition Standards Range;
- Surface Water Body: Not observed on-Site or within 30 metres of the Site.

Based on the above, the applicable site condition standards [SCSs] are the Table 7 SCSs for a Residential/Parkland/Institutional Use [RPI] property use in a non-potable groundwater condition from the Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environment Protection Act, (2011), hereinafter referred to as the 'Table 7 RPI Standards'.

3.0 BACKGROUND INFORMATION

3.0 (i) PHYSICAL SETTING

The Phase Two property is located in an area of mixed residential and retail commercial properties.

There are no water bodies in whole or in part on the Phase Two property. In addition, no surface water bodies were observed within 30 metres of the Phase Two property.

There are no areas of natural significance located in whole or in part on the Phase Two property.

The topography of the Phase Two property is relatively flat and level, with surface water being directed primarily to the north towards the north property line, as well as to the northeast towards an on-site catch basin.

3.0 (ii) PAST INVESTIGATIONS

SOIL-MAT ENGINEERS had access to the following environmental reports, which were utilized as supporting documents during the completion of this Report.

1. Phase One Environmental Site Assessment, 141 – 149 Main Street East, Grimsby, Ontario, dated April 2, 2020: prepared for Losani Homes. [Mr. Brandon Almeida].

The April 2, 2020 Phase One ESA report revealed three potentially contaminating activities [PCAs] on the Phase One ESA Site, including the following:

- Aerial photographs revealed two [2] buildings that have been demolished on the southern portion of the Site;
- Aerial photographs revealed orchards historically occupying the Site;
- The Site reconnaissance revealed a former aboveground heating fuel tank in the basement of 147 Main Street East.

The lands in the general vicinity of the Site are comprised of a mixture of retail commercial and residential lands. The Phase One ESA research revealed two [2] historical PCAs on lands in the Phase One ESA Study Area that are considered a potential environmental liability to the Site, including the following items:

- The TSSA and Ecolog ERIS Report indicated a former full-serve gas station with four [4] underground fuel tanks at 146 Main Street East, approximately 50 metres south [up-gradient] from the Site.
- A historic photo [date unknown] indicates a historic gasoline service station in operation adjacent to the west of the Site.

Based on the above, the PCAs were limited to the following:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	Two [2] locations on the southern portion of the Site.	30. Importation of Fill Material of Unknown Quality	On-Site	Metals, Arsenic [As], Antimony [Sb], Selenium [Se], Boron (Hot Water Soluble) [BHWS], Cyanide [CN-], Electrical Conductivity [EC], Chromium [Cr (VI)], Mercury [Hg] and Sodium Adsorption Ration [SAR]	Soil
APEC #2	Throughout the Site	40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large Scale Applications	On-Site	Metals, Organochlorine Pesticides [OCs]	Soil
APEC #3	The east end of the building at 147 Main Street East.	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	Petroleum Hydrocarbons [PHCs] & Benzene, Toluene, Ethylbenzene and Xylenes [BTEX]	Soil
APEC #4	The western property limit	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs & BTEX	Soil and Groundwater
APEC #5	The southern property limit	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs & BTEX	Soil and Groundwater

The above noted report was supervised by a Qualified Person [QP] of SOIL-MAT ENGINEERS.

In addition to the above, SOIL-MAT ENGINEERS contacted Ms. Nancy Simon, an employee with the Town of Grimsby Planning Department to request a copy of previous environmental reports for the Site that may be on file with the Town. However, no reports were available for viewing and according to Ms. Simon, there are none on file with the Town.

In addition, a search of the MOE's *Brownfields Environmental Site Registry* did not reveal a previous Phase One ESA that may have been undertaken on the Site.

4.0 SCOPE OF THE INVESTIGATION

4.0 (i) OVERVIEW OF SITE INVESTIGATION

Based on the Phase One ESA findings fourteen [14] boreholes were advanced on Site to assess the impact to the soil and groundwater, if any, as a result of the noted PCAs and to delineate the lateral and vertical extent of the noted exceedances.

Representative soil samples were secured following standard industry sampling protocols and were submitted to AGAT laboratories for laboratory analytical testing for the specific Phase Two ESA contaminants of potential concern [COPC], in this case being petroleum hydrocarbons [PHCs], benzene, toluene, ethylbenzene, and xylene mixture [BTEX], volatile organic compounds [VOCs], organochlorine pesticides [OCs], Metals, As, Sb, Se, BHWS, CN-, Electrical Conductivity, Cr (VI), Hg and Sodium Adsorption Ratio. For reporting purposes, the COPCs listed above [with the exception of PHCs, BTEX, VOCs, and OCs] are hereinafter referred to as "Metals".

4.0 (ii) MEDIA INVESTIGATED

The purpose of the Phase Two ESA was to assess the soil and groundwater quality on the Phase Two property, as related to the environmental concerns raised in the findings of the April 2, 2020 Phase One ESA.

4.0 (iii) PHASE ONE CONCEPTUAL SITE MODEL

The Phase One ESA property is comprised of three [3] adjoining parcels of land that together form an irregular shaped parcel of land on the northwest corner of Main Street East and Wentworth Drive, recognised with the municipal addresses of 141, 147, and 149 Main Street East in the Town of Grimsby, Ontario.

SOIL-MAT ENGINEERS completed a Phase One ESA on the Site in April of 2020. The information gathered during the completion of the Phase One ESA reports revealed that the Site was first developed before 1907 as residential lands and redeveloped as commercial lands between 1983 and 1989. The first readily available visual aid for the Site is a topographic map from 1907 that illustrates a building on the Site, however, it is unclear which portion of the property this building occupies. Other visual aids, including aerial photographs from 1934, 1954, 1960, 1965, 1971, 1975, 1983, 1989, 1994, 2000, 2009, and 2018, as well as topographic maps from 1938, 1961, and 1996, confirm the development timeline above. The neighbouring and nearby lands to the Site are comprised primarily of residential and commercial lands.

The current and historic operations revealed three [3] PCAs on the Phase One ESA Site that are considered a potential environmental liability to the Site, including the following:

1. Aerial photographs illustrate orchard lands historically throughout the majority of the Site.
2. Aerial photographs depict two [2] former buildings on the southern portion of the Phase One ESA property. Historically, it was a common practise to demolish buildings and utilise the remaining construction debris and various fill materials to backfill the basement level of the structures, if present.

3. During the Site reconnaissance, it was revealed that there was formerly a basement aboveground heating fuel tank on the east end of the building at 147 Main Street East.

The current and historic operations on the adjoining properties revealed two [2] historical PCAs on lands in the Phase One ESA Study Area that are considered a potential environmental liability to the Site, including the following items:

1. The TSSA indicated a former full-serve gas station with four [4] underground fuel tank at 146 Main Street East, approximately 50 metres south [up-gradient] from the Site.
2. A historic photo [date unknown] indicates a historic gasoline service station in operation adjacent to the west of the Site.

As a result of the Phase One ESA carried out by SOIL-MAT ENGINEERS for the Site, the following potential contaminating activities [PCA] were identified on the Site.

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	Two [2] locations on the southern portion of the Site.	30. Importation of Fill Material of Unknown Quality	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #2	Throughout the Site	40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large Scale Applications	On-Site	Metals, OCs	Soil
APEC #3	The east end of the building at 147 Main Street East.	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs & BTEX	Soil
APEC #4	The western property limit	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs & BTEX	Soil and Groundwater
APEC #5	The southern property limit	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs & BTEX	Soil and Groundwater

No other PCAs were identified on the Phase One property or on the neighbouring lands or lands located within the Phase One study area.

4.0 (iv) DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis. There were no deviations recorded during this Phase Two ESA.

4.0 (v) IMPEDIMENTS

There were no impediments to SOIL-MAT ENGINEERS' field work and assessment activities during the Phase Two activities.

5.0 INVESTIGATION METHODS

5.0 (i) GENERAL

There were no deviations in SOIL-MAT ENGINEERS' planned Phase Two activities.

5.0 (ii) DRILLING AND EXCAVATING

All boreholes were advanced using solid stem continuous flight auger equipment on April 1, 2020 and April 8, 2020. The physical drilling work was performed by Elite Drilling Services [Elite] on April 1, 2020, via a track mounted drill rig and by Pontil Drilling [Pontil] on April 8, 2020 under the supervision of a representative of SOIL-MAT ENGINEERS.

Soil samples were generally collected in 0.76 metre intervals from the ground surface to the termination of each borehole. After each sampling event, the split-spoon sampler was thoroughly washed with non-phosphate detergent then rinsed with water before the collection of each subsequent sample to minimise the potential for cross-contamination between samples. The boreholes were advanced on the Site using solid stem augers.

5.0 (iii) SOIL SAMPLING

Soil samples were examined in the field for visual and olfactory evidence of potential impacts such as unusual staining and/or odours, etc., and were split into two separate samples, including the following:

- One half of the sample was sealed in sampling jars for submission to AGAT for analytical testing, and;
- One half of the sample was sealed in a plastic sampling bag for further characterisation in SOIL-MAT ENGINEERS' in-house soils laboratory.

The soil samples that were picked up at our office by AGAT were sealed in pre-cleaned wide mouth, amber glass sample jars, no head space, as provided by the laboratory. The samples were stored and transported in a cooler and kept under ice packs to minimise potential volatilisation of select parameters. New disposable sampling gloves were used for the collection of each soil sample with care given not to make contact with the samples and gloves. Dedicated sample retrieval equipment, including a stainless steel split-spoon, was used to retrieve each sample and before depositing it directly it into the AGAT Laboratories sample jar.

The samples were picked up at our office by AGAT in coolers equipped with ice packs to help maintain a temperature range between the applicable 0°C to 10°C. As reported on the chain of custody for the soil samples, the samples were picked up at our office with average temperatures of 4.6°C and 6.6°C and arrived at AGAT's Mississauga lab with average temperatures of 4.1°C, and 4.6°C.

5.0 (iv) FIELD SCREENING MEASUREMENTS

All of the Phase Two ESA soil samples were examined in the field for visual and olfactory evidence of potential PHC impact(s), such as unusual staining and/or odours, etc.

No hand held field screening units were utilised during the collection of the confirmatory soil samples.

5.0 (v) GROUND WATER: MONITORING WELL INSTALLATION

A 50 millimetre groundwater monitoring well [GWMW] was installed at Borehole Nos. 1 through 4 upon the completion of drilling activities. The GWMWs were installed to depths ranging between 5.6 and 5.9 metres, with a screened interval in the lower 3.05 metres. The GWMWs were installed in accordance with *Ontario Regulation 903 [Water Wells]* under the Ontario Water Resources Act.

A water well record was submitted to the Ministry of the Environment, Conservation and Parks [MOE] upon completion of drilling activities. It is the responsibility of the Site owner to ensure each GWMW is maintained in an appropriate, safe and secure condition as per the Regulation and to arrange for each GWMW to be abandoned in accordance with the Regulation when it is no longer in use.

The monitoring installation details are summarized in the table below.

Monitoring Well	Bottom of Monitoring Well [m bgs]	Bottom of the Borehole Elevation [m]	Screen Length [m]	Screen Interval [m bgs]	Filter Pack [m bgs]	Bentonite Plug [m bgs]	Ground Surface Elevation [m asl]
MW1	5.9	88.84	3.05	2.85 – 5.9	2.55 – 5.9	0.15 – 2.55	94.74
MW2	5.6	89.34	3.05	2.55 – 5.6	2.25 – 5.6	0.15 – 2.25	94.94
MW3	5.8	88.60	3.05	2.75 – 5.8	2.45 – 5.8	0.15 – 2.45	94.40
MW4	5.8	88.76	3.05	2.75 – 5.8	2.45 – 5.8	0.15 – 2.45	94.56

5.0 (vi) GROUND WATER: FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

No hand held field screening units were utilised during the collection of the groundwater samples. The samples were delivered immediately to AGAT upon retrieval from the monitoring well and were subjected to AGAT's QA procedure which included a temperature reading upon their receipt.

The groundwater samples were delivered to the AGAT depot in Stoney Creek, Ontario immediately after sampling on ice to begin cooling the samples between the applicable 0°C to 10°C. The sample were dropped off with and average temperature of 9.4°C and arrived at AGAT's Mississauga lab with an average temperature of 8.4°C.

5.0 (vii) GROUND WATER: SAMPLING

Three [3] well volumes were purged from each GWMW prior to the collection of the groundwater samples. The GWMWs were then allowed to recharge back to recorded static groundwater levels prior to the physical sample collection.

The GWMWs installed on the Site during this Phase Two ESA were equipped with dedicated sampling equipment, including a 25 millimetre water bailer for sample collection for the PHC and BTEX parameters.

A low flow bladder pump was utilised for the collection of groundwater samples for the remaining COPC groupings as the samples were subjected to laboratory analytical testing for VOCs.

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis.

There were no deviations recorded during the Phase Two ESAs.

5.0 (viii) SEDIMENT SAMPLING

Sediment sampling was not conducted as part of the Phase Two ESA activities. The medium investigated was limited to the soil and groundwater medium.

5.0 (ix) ANALYTICAL TESTING

All laboratory analytical work was performed by AGAT Laboratories [AGAT] in Mississauga, Ontario.

AGAT is a member of the Canadian Association for Laboratory Accreditation [CALA] and meets the requirements of Section 47 of the Record of Site Condition [RSC] Regulation.

5.0 (x) RESIDUAL MANAGEMENT PROCEDURES

Soil cuttings produced from the physical drilling activities were stored on-site on steel, 45-gallon drums until the results of the laboratory analytical testing demonstrated that the subject soil material met the applicable SCSs. As there were some exceedances with respect to the proposed redevelopment site condition standards, the soil cuttings will need to be removed from the Phase Two property prior to the completion of an RSC.

Purged groundwater was stored on-site until the results of the laboratory analytical testing demonstrated that the groundwater met the applicable SCS at which time the groundwater was discarded across the surface soil in the vicinity of each groundwater sampling point.

5.0 (xi) ELEVATION SURVEYING

All boreholes and groundwater monitoring wells were surveyed by a staff member of SOIL-MAT ENGINEERS to facilitate site relative survey information.

A catch basin on the west side of Wentworth Drive was used as a permanent geodetic benchmark with an elevation of 93.52m (as provided by our client).

5.0 (xii) QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

QA/QC was maintained during the field program through equipment decontamination and sampling procedures, as outlined in the "*MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*" (May, 1996).

Standard QA/QC protocols were followed for bottle preparation, sample collection and transportation, as outlined by MOE guidance documents, including the MOE's 2011 "*Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act*".

In addition to these field-based measures, extensive QA/QC procedures were carried out by the analytical laboratories, including:

- Lab blanks;
- Spikes;
- Matrix blanks; and
- Instrument blanks and assessments of instrument tuning and performance.

Based on the evaluation of the sampling and analytical procedures used, the following data quality statements can be made:

- The data are adequate for the RSC objectives and approach utilized; and,
- Soil analytical data were of an acceptable quality for comparison to 2011 MOE SCS as defined by *O.Reg.153/04, as amended,* for current investigations.

6.0 REVIEW AND EVALUATION

6.0 (i) GEOLOGY

SOIL-MAT ENGINEERS' Phase Two ESA revealed the following Site stratigraphy:

- PAVEMENT STRUCTURE: All of the boreholes were advanced through the pavement structure of the existing parking lot. The pavement structure was noted to consist of approximately 50 to 125 millimetres of asphaltic concrete overlying approximately 100 to 275 millimetres of compact granular base mater.
- SILTY SAND / SANDY SILT: Silty sand/sandy silt was encountered beneath the pavement structure at all boreholes with the exception of Borehole No.: 'BH7' and 'BH8'. The silty sand/sandy silt was brown in colour with trace to some clay, trace gravel, and occasional organic inclusions, and was generally in a loose condition. The upper levels of the fine grained soils generally had a 'reworked' appearance, and may be fill materials associated with former structures on the site, construction of the existing facility, parking lot, etc. Silt sand/sandy silt was proven to depths of approximately 1.4 to 1.8 metres below the existing pavement surface.
- SAND AND GRAVEL FILL: Sand and gravel fill was encountered beneath the pavement structure in Borehole Nos.: 'BH7' and 'BH8'. The granular fill material was brown in colour with contained trace silt, occasional cobbles and organic inclusions, and was generally in a compact to dense condition. Sand and gravel fill was proven to depths of approximately 1.8 and 0.7 metres below the existing pavement surface in Borehole Nos.: 'BH7' and 'BH8', respectively.
- QUEENSTON SHALE BEDROCK: Queenston shale bedrock was encountered beneath the silty sand/sandy silt and sand and gravel fill layers at Borehole Nos.: 'BH1' to 'BH8', at depths of between approximately 0.8 and 2.9 metres below the existing grade, however may be present at greater depths across the site. The Queenston shale was severely weathered in the upper levels, becoming more sound with depth, and was hard in terms of soil. It is noted that the upper levels of the Queenston shale are severely weathered, exhibiting characteristics of a very stiff to hard cohesive soil. As such, the transition from overburden soils to weathered Queenston shale is somewhat indistinct. The bedrock was not cored as part of this investigation.
- GROUNDWATER: All of the boreholes were recorded as being 'dry' upon completion of drilling. It is noted that insufficient time would have passed for the static groundwater level to stabilise in the open boreholes. As noted above, monitoring wells were installed at four [4] borehole locations (Borehole Nos.: 'BH1' through 'BH4'), to allow for future measurements of the static groundwater level.

6.0 (ii) GROUND WATER: ELEVATIONS AND FLOW DIRECTIONS

All boreholes were recorded as being 'dry' upon completion of drilling activities at depths of 5.6 to 5.9 metres below the existing pavement structure. It is noted that insufficient time would have passed for the static groundwater level to stabilize in the open boreholes during drilling.

Groundwater monitoring wells were installed in Borehole Nos.: 'BH1' through 'BH4' for future monitoring of the static groundwater level and environmental sampling of the on-site groundwater. The monitoring installation details are summarized in the table below.

TABLE A
SUMMARY OF GROUNDWATER LEVELS

Borehole No.	Surface Elevation (m)	April 23, 2020		May 7, 2020	
		Depth [m]	Elev. [m]	Depth [m]	Elev. [m]
BH1	94.74	5.16	89.58	4.83	89.91
BH2	94.94	5.19	89.75	4.58	90.36
BH3	94.40	4.90	89.50	4.57	89.83
BH4	94.56	3.43	91.13	3.41	91.15

Based on the groundwater readings, and based on our experience in the area and observations during drilling, the static groundwater level is estimated at a depth of approximately 3.0 and 5.0 metres below the existing pavement surface, although seasonal fluctuations must be expected.

Based on the ground water contours extrapolated from the recorded static ground water levels on the Site the ground water flow direction through the Site is to the south.

The monitoring well locations, ground water contours, and inferred ground water flow direction is illustrated on Drawing No. 3 in Appendix 'B'.

6.0 (iii) GROUND WATER: HYDRAULIC GRADIENTS

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded during the Phase Two ESA. Based on these recordings, the distance between the monitoring wells and the depth of well installation the horizontal hydraulic gradient is estimated as 0.0114.

The vertical hydraulic gradient was not calculated as the Phase Two activities did not reveal any exceedances of the applicable SCSs for the select tested COPCs in the groundwater medium.

6.0 (iv) FINE-MEDIUM SOIL TEXTURE

SOIL-MAT ENGINEERS' borehole logs indicate that the surface and subsurface soil consists primarily of Queenston shale bedrock as the predominant soil type. However, a hydrometer was not performed on these soils. As such the soil was classified as a coarse texture.

6.0 (v) SOIL: FIELD SCREENING

SOIL-MAT ENGINEERS did not observe any visual or olfactory evidence that suggested a new COPC grouping should be considered during the assessment activities.

6.0 (vi) SOIL QUALITY

In total, twenty-nine [29] soil samples including two [2] duplicates were secured from the Site to assess potential adverse impact(s) on the Site as a result of PCAs noted in the Phase One ESA.

The secured soil samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

SUMMARY OF TESTED SOIL SAMPLES

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description
BH1 SS1	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand
BH1 SS2	0.8 – 1.4	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand
BH1 SS3	1.5 – 2.1	Metals, VOCs, PHCs & BTEX	Queenston Shale
BH2 SS2	0.8 – 1.4	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand
BH2 SS4	2.3 – 2.9	Metals, VOCs, PHCs & BTEX	Queenston Shale
BH3 SS1	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand
BH3 SS2	0.8 – 1.4	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand
BH3 SS4	2.3 – 2.9	Metals, VOCs, PHCs & BTEX	Queenston Shale
BH4 SS2	0.7 – 1.3	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand
BH4 SS7	6.1 – 6.4	Metals, VOCs, PHCs & BTEX	Queenston Shale
BH5 SS1	0.2 – 0.8	PHCs & BTEX	Sandy Silt / Silty Sand
BH5 SS3	1.5 – 2.1	PHCs & BTEX	Queenston Shale
BH6 SS1	0.2 – 0.8	Metals	Sandy Silt / Silty Sand
BH6 SS2	0.8 – 1.4	Metals	Sandy Silt / Silty Sand
BH7 SS1	0.2 – 0.8	Metals	Sand and Gravel Fill
BH7 SS2	0.8 – 1.4	Metals	Sand and Gravel Fill
BH8 SS1	0.2 – 0.8	Metals	Sand and Gravel Fill
BH8 SS2	0.8 – 1.4	Metals	Queenston Shale
BH A SS1 [BH 9]	0.3 – 0.9	Metals & OCs	Sandy Silt / Silty Sand
BH B SS1 [BH 10]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand
BH B SS2 [BH 10]	0.8 – 1.4	Metals & OCs	Sandy Silt / Silty Sand
BH C SS1 [BH 11]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand
BH D SS1 [BH 12]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand

BH D SS2 [BH 12]	0.8 – 1.4	Metals & OCs	Sandy Silt / Silty Sand
BH E SS1 [BH 13]	0.1 – 0.7	Metals & OCs	Sandy Silt / Silty Sand
BH F SS1 [BH 14]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand
BH F SS2 [BH 14]	0.8 – 1.4	Metals & OCs	Sandy Silt / Silty Sand
Dup 1 (BH3 SS4)	2.3 – 2.9	Metals	Queenston Shale
Dup 2 (BH2 SS4)	2.3 – 2.9	PHCs & BTEX	Queenston Shale

The laboratory analytical test results for the submitted soil samples are summarised below:

SUMMARY OF SOIL SAMPLE TEST RESULTS

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 7 RPI Exceedances
BH1 SS1	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH1 SS2	0.8 – 1.4	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: SAR – 5.65ppm vs 5ppm
BH1 SS3	1.5 – 2.1	Metals, VOCs, PHCs & BTEX	Queenston Shale	Exceeds the Table 7 RPI SCSs in Metals as: SAR – 5.58ppm vs 5ppm
BH2 SS2	0.8 – 1.4	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: EC – 2.72ppm vs 0.7ppm SAR – 9.45ppm vs 5ppm
BH2 SS4	2.3 – 2.9	Metals, VOCs, PHCs & BTEX	Queenston Shale	No exceedances reported
BH3 SS1	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: Cadmium – 1.7ppm vs 1.2ppm Zinc – 639ppm vs 340ppm
BH3 SS2	0.8 – 1.4	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand	No exceedances reported
BH3 SS4	2.3 – 2.9	Metals, VOCs, PHCs & BTEX	Queenston Shale	No exceedances reported
BH4 SS2	0.7 – 1.3	Metals, VOCs, PHCs & BTEX	Sandy Silt / Silty Sand	No exceedances reported
BH4 SS7	6.1 – 6.4	Metals, VOCs, PHCs & BTEX	Queenston Shale	No exceedances reported
BH5 SS1	0.2 – 0.8	PHCs & BTEX	Sandy Silt / Silty Sand	No exceedances reported
BH5 SS3	1.5 – 2.1	PHCs & BTEX	Queenston Shale	No exceedances reported
BH6 SS1	0.2 – 0.8	Metals	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: SAR – 14.0ppm vs 5ppm
BH6 SS2	0.8 – 1.4	Metals	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: EC – 1.27ppm vs 0.7ppm SAR – 36.8ppm vs 5ppm
BH7 SS1	0.2 – 0.8	Metals	Sand and Gravel Fill	Exceeds the Table 7 RPI SCSs in Metals as: Lead – 168ppm vs 120ppm EC – 0.875ppm vs 0.7ppm SAR – 11.3ppm vs 5ppm
BH7 SS2	0.8 – 1.4	Metals	Sand and Gravel Fill	Exceeds the Table 7 RPI SCSs in Metals as: EC – 1.10ppm vs 0.7ppm

BH8 SS1	0.2 – 0.8	Metals	Sand and Gravel Fill	Exceeds the Table 7 RPI SCSs in Metals as: Cadmium – 2.9ppm vs 1.2ppm Lead – 172ppm vs 120ppm EC – 2.58ppm vs 0.7ppm SAR – 19.7ppm vs 5ppm
BH8 SS2	0.8 – 1.4	Metals	Queenston Shale	Exceeds the Table 7 RPI SCSs in Metals as: SAR – 8.58ppm vs 5ppm
BH A SS1 [BH 9]	0.3 – 0.9	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH B SS1 [BH 10]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH B SS2 [BH 10]	0.8 – 1.4	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH C SS1 [BH 11]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH D SS1 [BH 12]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: Cadmium – 1.3ppm vs 1.2ppm Zinc – 353ppm vs 340ppm
BH D SS2 [BH 12]	0.8 – 1.4	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH E SS1 [BH 13]	0.1 – 0.7	Metals & OCs	Sandy Silt / Silty Sand	Exceeds the Table 7 RPI SCSs in Metals as: Cadmium – 1.8ppm vs 1.2ppm Zinc – 607ppm vs 340ppm
BH F SS1 [BH 14]	0.2 – 0.8	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
BH F SS2 [BH 14]	0.8 – 1.4	Metals & OCs	Sandy Silt / Silty Sand	No exceedances reported
Dup 1 (BH3 SS4)	2.3 – 2.9	Metals	Queenston Shale	No exceedances reported
Dup 2 (BH2 SS4)	2.3 – 2.9	PHCs & BTEX	Queenston Shale	No exceedances reported

Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR
PHCs = Petroleum Hydrocarbons, VOCs = Volatile Organic Compounds,
BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture
OC = Organochlorine Pesticides

The laboratory analytical test results for the submitted soil samples indicate the following Table 7 RPI exceedances:

- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [Specifically Cadmium, Zinc, and Lead] at five [5] borehole locations on the Site in the upper approximately 0.8 metres below ground surface.
- The remaining secured soil samples all reportedly meet the applicable SCSs for the select tested COPCs.

With respect to the soil exhibiting elevated electrical conductivity [EC] and sodium adsorption ratio [SAR] levels, under the current RSC Regulation [Ontario Regulation 153/04, as amended], the specific contaminant of concern 'EC' and/or 'SAR' is deemed not to be exceeded if it has been determined that the elevated level of the EC is a result of a substance applied to surfaces for the safety of vehicular or pedestrian traffic.

The Phase Two ESA property, borehole locations and analytical test results are illustrated on Drawing Nos. 3, 3A – 3F, and 4A – 4D in Appendix 'B'. SOIL-MAT ENGINEERS' borehole logs are also included in Appendix 'B' for reference.

The AGAT Certificate of Analysis is included in Appendix 'C' for reference.

6.0 (vii) GROUND WATER QUALITY

In total, four [4] water samples including one duplicate was secured from the Site to assess potential adverse impact(s) on the Site as a result of PCAs noted in the Phase One ESA.

The secured water samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

Sample ID	Laboratory Analysis
MW1-S1	PHCs, BTEX, VOCs & Metals
MW2-S1	PHCs, BTEX, VOCs & Metals
MW3-S1	PHCs, BTEX, VOCs & Metals
MW4-S1	PHCs, BTEX, VOCs & Metals
Dup 1 [MW4]	PHCs, BTEX, VOCs & Metals
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons VOCs = Volatile Organic Compounds, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture	

The laboratory analytical test results for the submitted water samples are summarised below:

SUMMARY OF ANALYTICAL TESTING – WATER [TABLE 7 NPGW]

Sample ID	Laboratory Analysis	Table 7 NPGW Exceedances
MW1-S1	PHCs, BTEX, VOCs & Metals	No exceedances reported
MW2-S1	PHCs, BTEX, VOCs & Metals	No exceedances reported
MW3-S1	PHCs, BTEX, VOCs & Metals	No exceedances reported
MW4-S1	PHCs, BTEX, VOCs & Metals	No exceedances reported
Dup 1 [MW4]	PHCs, BTEX, VOCs & Metals	No exceedances reported
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons BTEX = Benzene, Toluene, Ethylbenzene, Xylenes VOC= Volatile Organic Compounds		

The laboratory analytical test results for the submitted ground water samples are all below the applicable Table 7 NPGW Standards for the select test parameters.

The AGAT certificate of analysis for the groundwater analytical data is contained in Appendix 'D' for reference.

6.0 (viii) SEDIMENT QUALITY

Sediment sampling was not conducted as part of the Phase Two ESA fieldwork.

6.0 (ix) QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

QA/QC was maintained during the field program through equipment decontamination and sampling procedures, as outlined in the "*MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*" (May, 1996).

Standard QA/QC protocols were followed for bottle preparation, sample collection and transportation, as outlined by MOE guidance documents, including the MOE's 2011 "*Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act*".

In addition to these field-based measures, extensive QA/QC procedures were carried out by the analytical laboratories, including:

- Lab blanks;
- Spikes;
- Matrix blanks; and
- Instrument blanks and assessments of instrument tuning and performance.

Based on the evaluation of the sampling and analytical procedures used, the following data quality statements can be made:

- The data is adequate for the RSC objectives and approach utilized; and,
- Soil analytical data were of an acceptable quality for comparison to Table 3 SCS as defined by *O.Reg.153/04, as amended,* for current investigations;

No deviations from the QA/QC protocols were noted during the completion of the Phase Two ESA fieldwork.

6.0 (x) PHASE TWO CONCEPTUAL SITE MODEL

SOIL-MAT ENGINEERS' has not prepared a Phase Two CSM as part of this Phase Two ESA. However, a Phase Two CSM will be prepared to support the filing of an RSC, once remediation/removal of the affected soil has been completed.

7.0 CONCLUSIONS

A description of the staff members associated with the completion of the Phase Two ESA activities is contained in Appendix 'F' of this Report. The ESA activities were supervised by Mr. Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP_{ESA}, who is a Qualified Person for the undertaking of ESA activities.

Based on SOIL-MAT ENGINEERS' field observations and the analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:

- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [Specifically Cadmium, Zinc, and Lead] at five [5] borehole locations on the Site in the upper approximately 0.8 metres below ground surface.
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for Electrical Conductivity [EC] and/or Sodium Adsorption Ratio [SAR] at five [5] borehole locations on the Site in the upper approximately 1.5 metres below ground surface.
- The remaining secured soil samples all reportedly meet the applicable site condition standards [SCSs] for the select tested contaminants of potential concern [COPCs].
- The laboratory analytical test results for the submitted ground water samples are all below the applicable Table 7 NPGW Standards for the selected test parameters.

The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.

As stated above, select Metal exceedances has been identified within the soil medium. These exceedances include Cadmium, Lead, and Zinc at five [5] borehole locations. The elevated levels of the select Metals were exhibited from the ground surface down to approximately 0.8 m bgs. It is noted that these exceedances were not fully delineated during these Phase Two ESA activities and as such additional delineation activities are warranted.

With respect to the soil exhibiting elevated electrical conductivity [EC] and sodium adsorption ratio [SAR] levels, under the current RSC Regulation [Ontario Regulation 153/04, as amended], the specific contaminant of concern 'EC' and/or 'SAR' is deemed not to be exceeded if it has been determined that the elevated level of the EC is a result of a substance applied to surfaces for the safety of vehicular or pedestrian traffic.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of LOSANI HOMES. The material in if reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of

such third parties. SOIL-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

We trust this Report is satisfactory for your purposes. Please feel free to contact our Office if you have any questions, or we may be of further service to you.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

Peter Markesic, B.Sc.
Project Manager

Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Stephen R. Sears, B. Eng. Mgmt., P. Eng., QPESA
Review Engineer

LICENSED PROFESSIONAL ENGINEER
JUNE 30/10
S. R. SEARS
PROVINCE OF ONTARIO

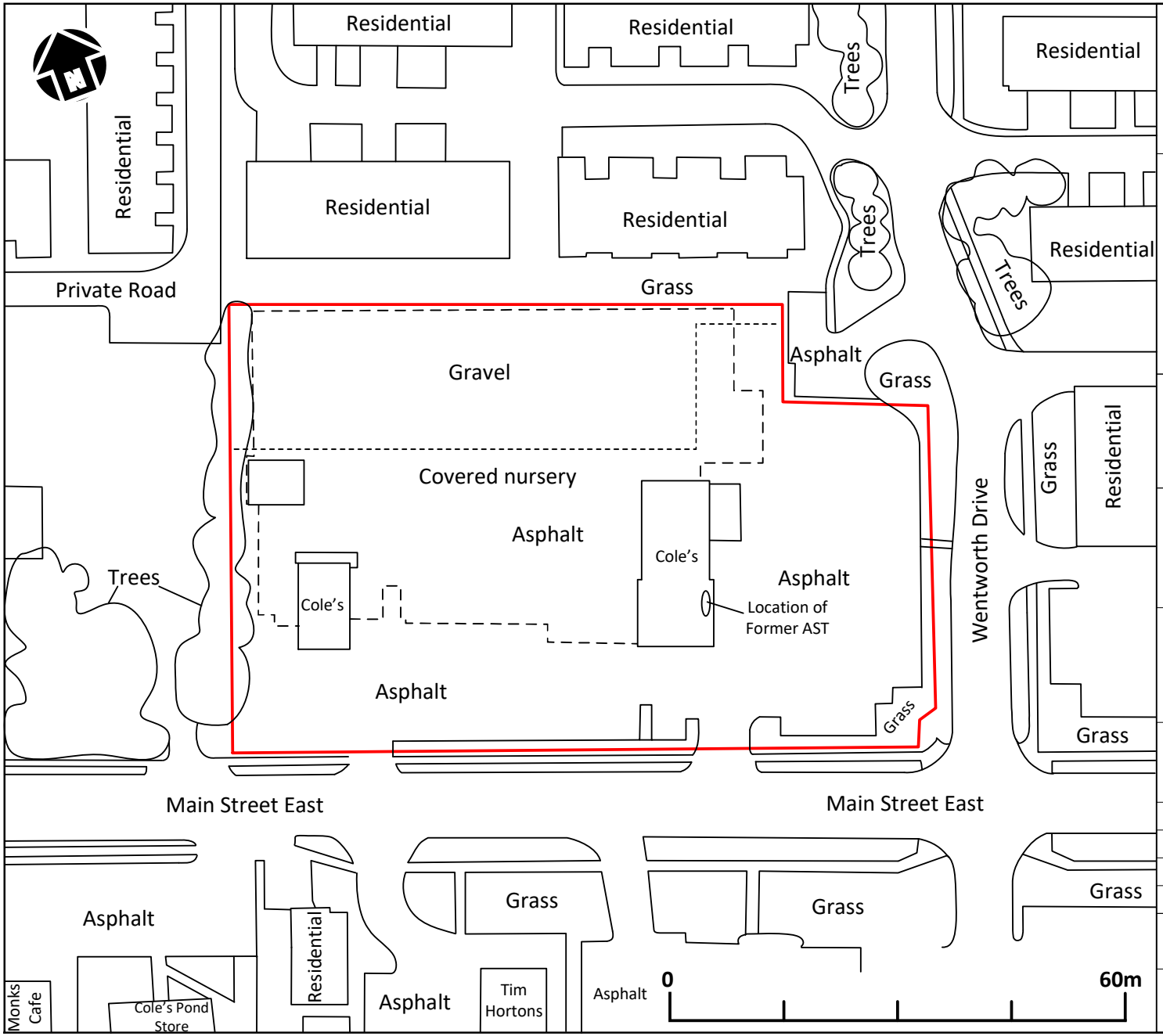
Distribution: LOSANI HOMES [2]

Enclosures:

Appendix 'A'	Site Plan Drawings and Borehole Logs
Appendix 'B'	AGAT Soil Analytical Data;
Appendix 'C'	AGAT Ground Water Analytical Data
Appendix 'D'	Qualifications of Assessors;
Appendix 'E'	Statement of Limitations

Appendix 'A'

1. Drawing No.: 1: Site Plan;
2. Drawing No.: 1A: APECs;
3. Drawing No.: 2: Borehole Location Plan;
4. Drawing No.: 3: Monitoring Well Location Plan and Groundwater Flow
5. Drawing No.: 3A: Analytical Data Summary [Soil] Metals;
6. Drawing No.: 3B: Analytical Data Summary [Soil] EC & SAR;
7. Drawing No.: 3C: Analytical Data Summary [Soil] PHCs;
8. Drawing No.: 3D: Analytical Data Summary [Soil] BTEX;
9. Drawing No.: 3E: Analytical Data Summary [Soil] VOCs;
10. Drawing No.: 3F: Analytical Data Summary [Soil] OCs;
11. Drawing No.: 4A: Analytical Data Summary [Water] Metals;
12. Drawing No.: 4B: Analytical Data Summary [Water] PHCs;
13. Drawing No.: 4C: Analytical Data Summary [Water] BTEX;
14. Drawing No.: 4D: Analytical Data Summary [Water] VOCs;
15. Borehole Logs



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

LOSANI HOMES

PROJECT TITLE

Phase Two Environmental Site Assessment
141-149 Main Street East
Grimsby, Ontario

DRAWING TITLE

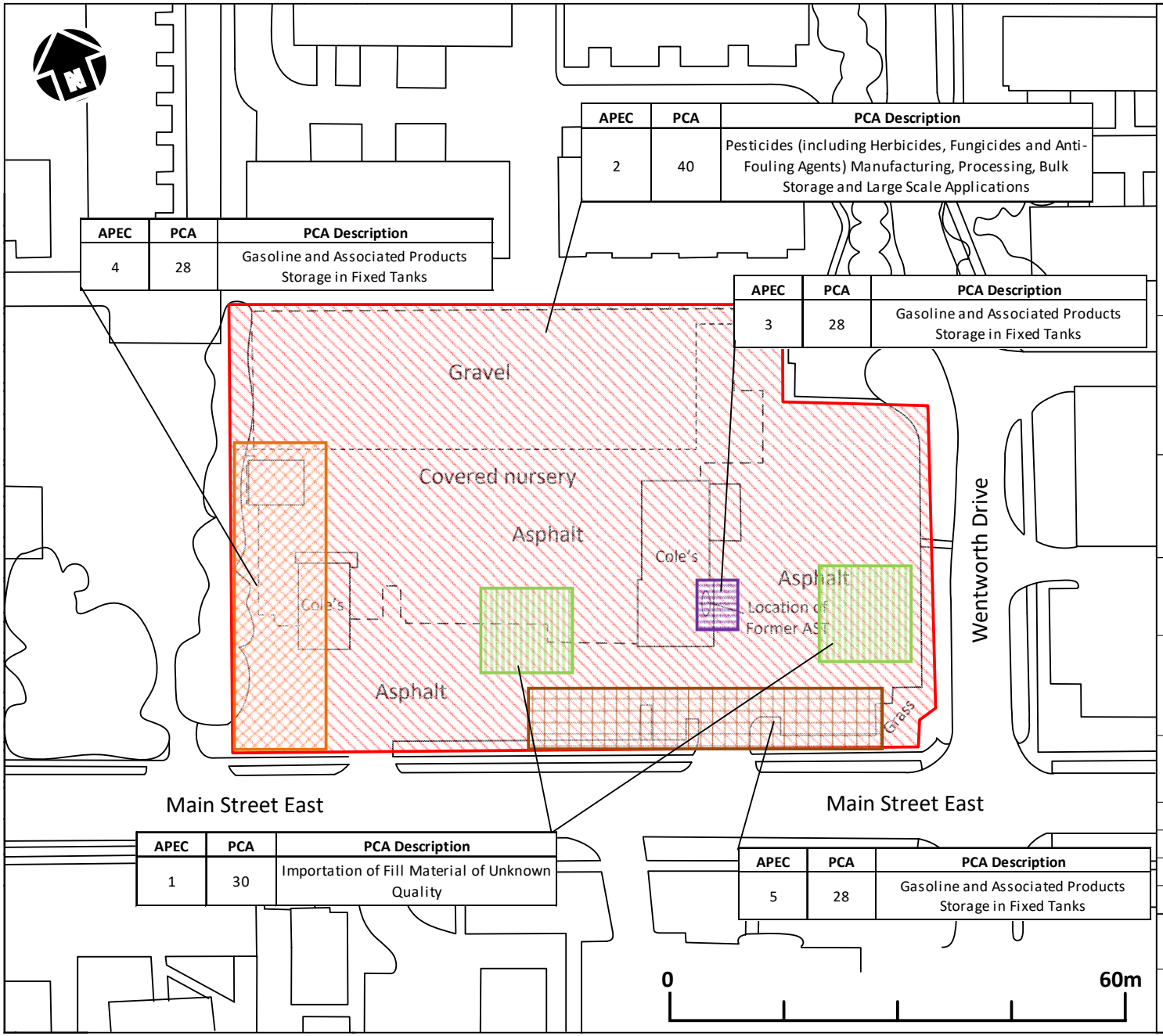
Study Area View

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME

200154 Site Plan.vsd

DRAWING No. 1



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
LOSANI HOMES

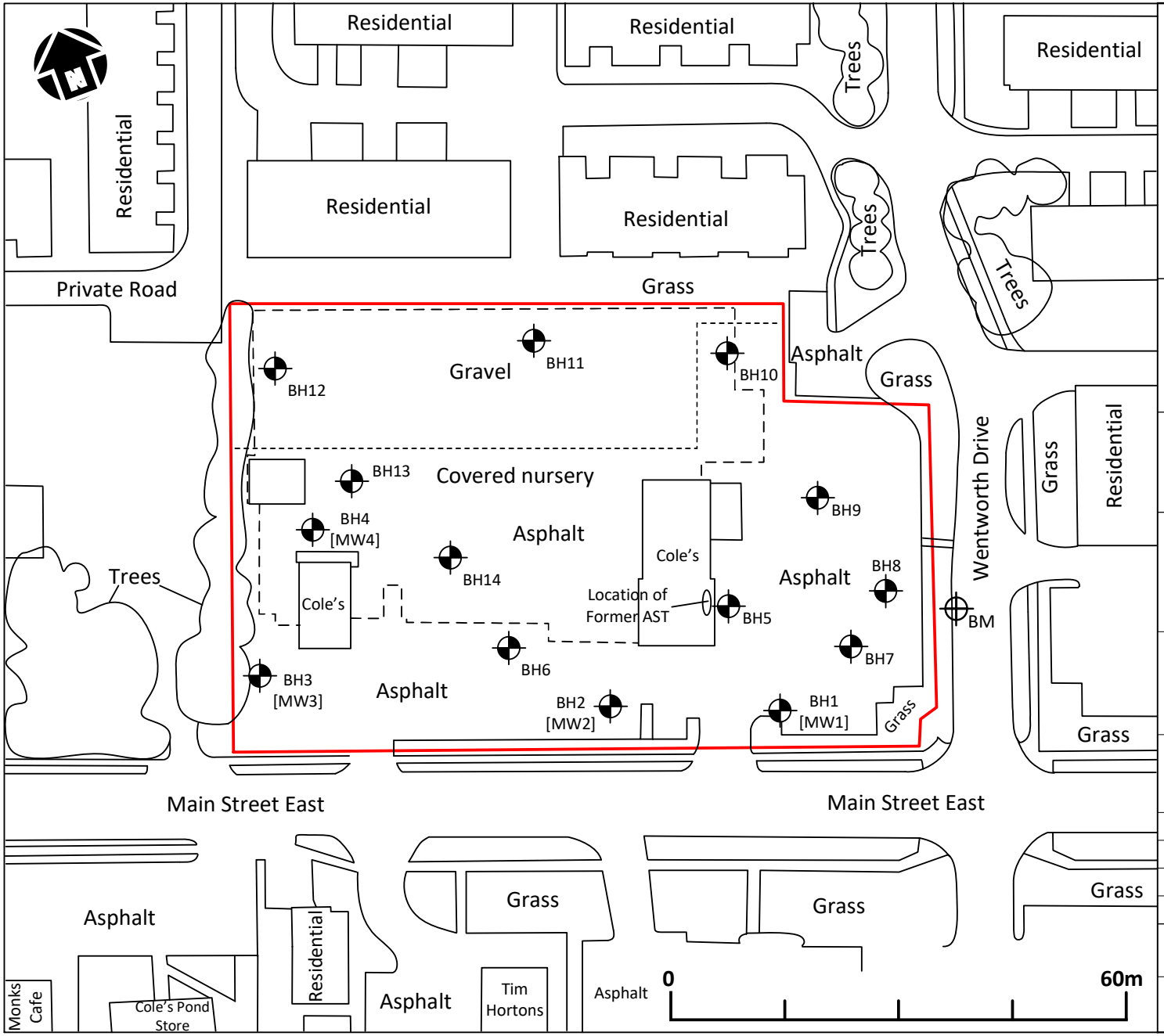
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
APECs

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 1A - APECs

DRAWING No. 1A



LEGEND

= Site Boundary

BH# = Borehole Location

BM = Benchmark
(Top of catch basin, west side of Wentworth Drive, geodetic elevation of 93.52m)

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

Losani Homes

PROJECT TITLE

Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

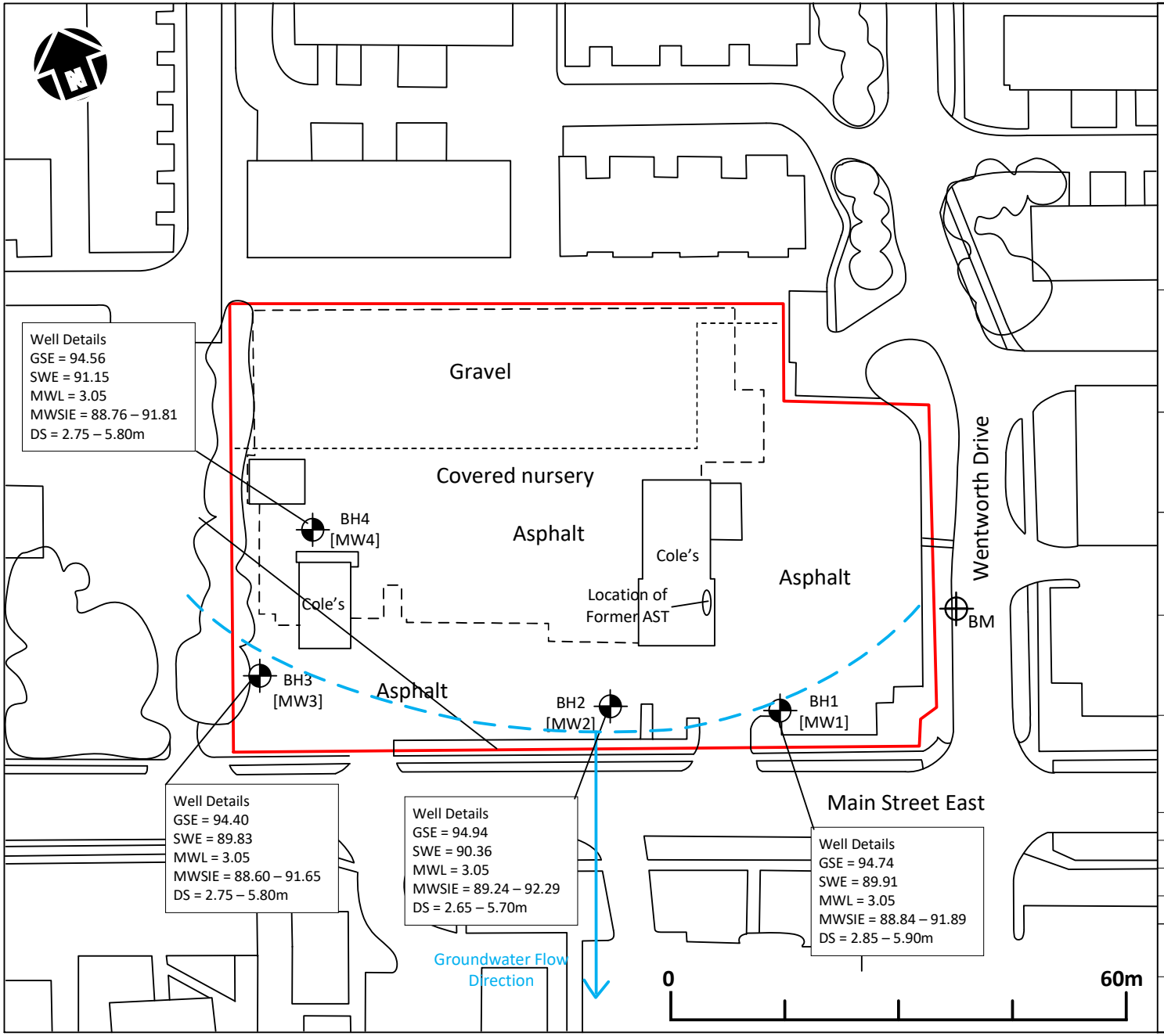
DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Borehole Location Plan.vsd

DRAWING No. 2



LEGEND

= Site Boundary

BH# = Borehole Location

BM = Benchmark
(Top of catch basin, west side of Wentworth Drive, geodetic elevation of 93.52m)

GSE = Monitoring Well Ground SurfacE Elevation
SWE = Static Water Elevation
MWL = Monitoring Well Length
MWSIE = Monitoring Well Screen Interval Elevation
DS = Depth of Screen

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

Losani Homes

PROJECT TITLE

Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE

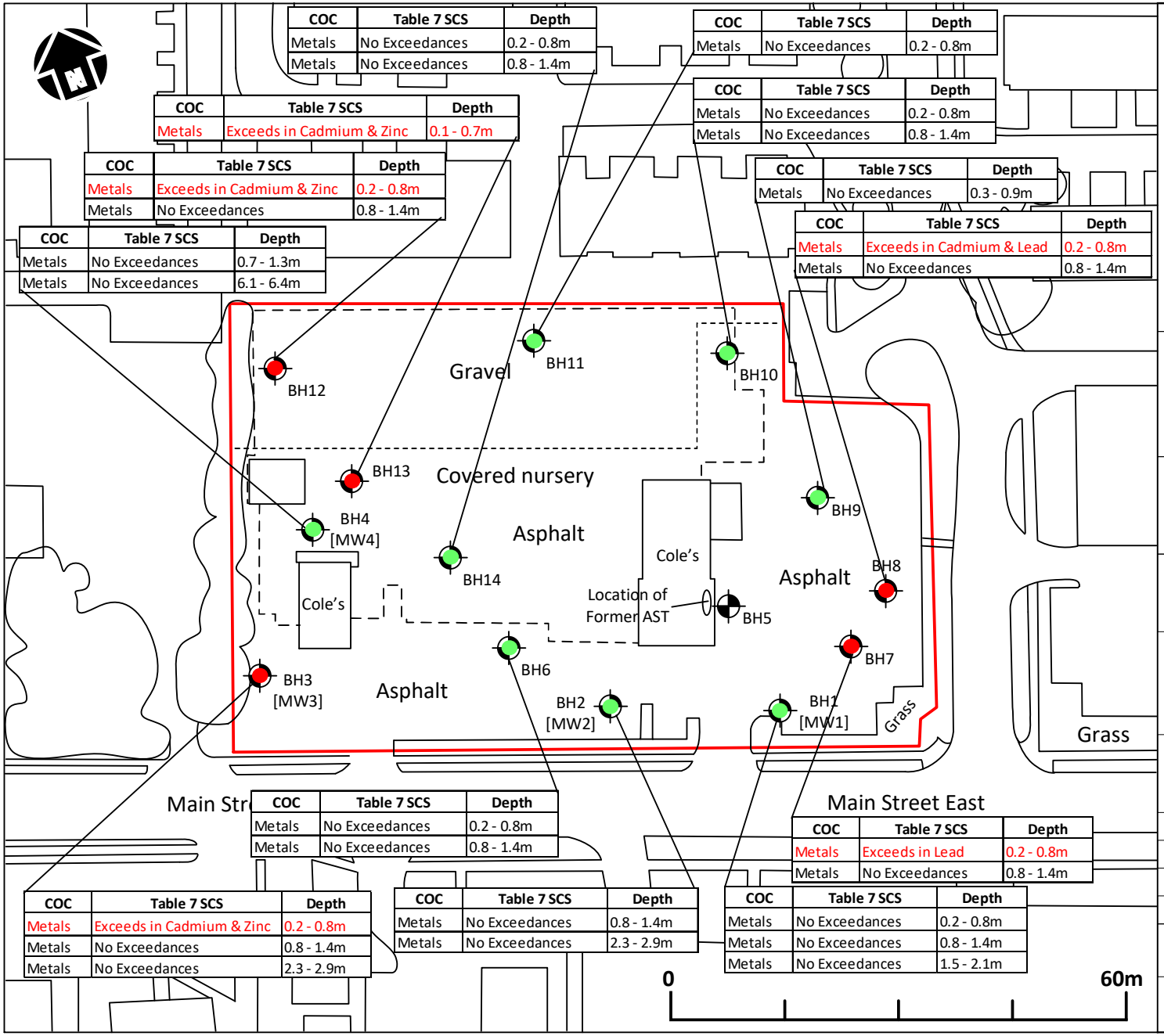
Monitoring Well Locations and Groundwater Flow

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME

200154 Drawing 3 – MWs and GW Flow.vsd

DRAWING No. 3



COC	Table 7 SCS	Depth
Metals	No Exceedances	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	Exceeds in Cadmium & Zinc	0.1 - 0.7m

COC	Table 7 SCS	Depth
Metals	Exceeds in Cadmium & Zinc	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.7 - 1.3m
Metals	No Exceedances	6.1 - 6.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.3 - 0.9m

COC	Table 7 SCS	Depth
Metals	Exceeds in Cadmium & Lead	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	Exceeds in Lead	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	Exceeds in Cadmium & Zinc	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.2 - 0.8m
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

The Metals grouping listed on the drawing includes: Metals, As, Sb, Se, BHWS, CN, Cr(VI), and Hg

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

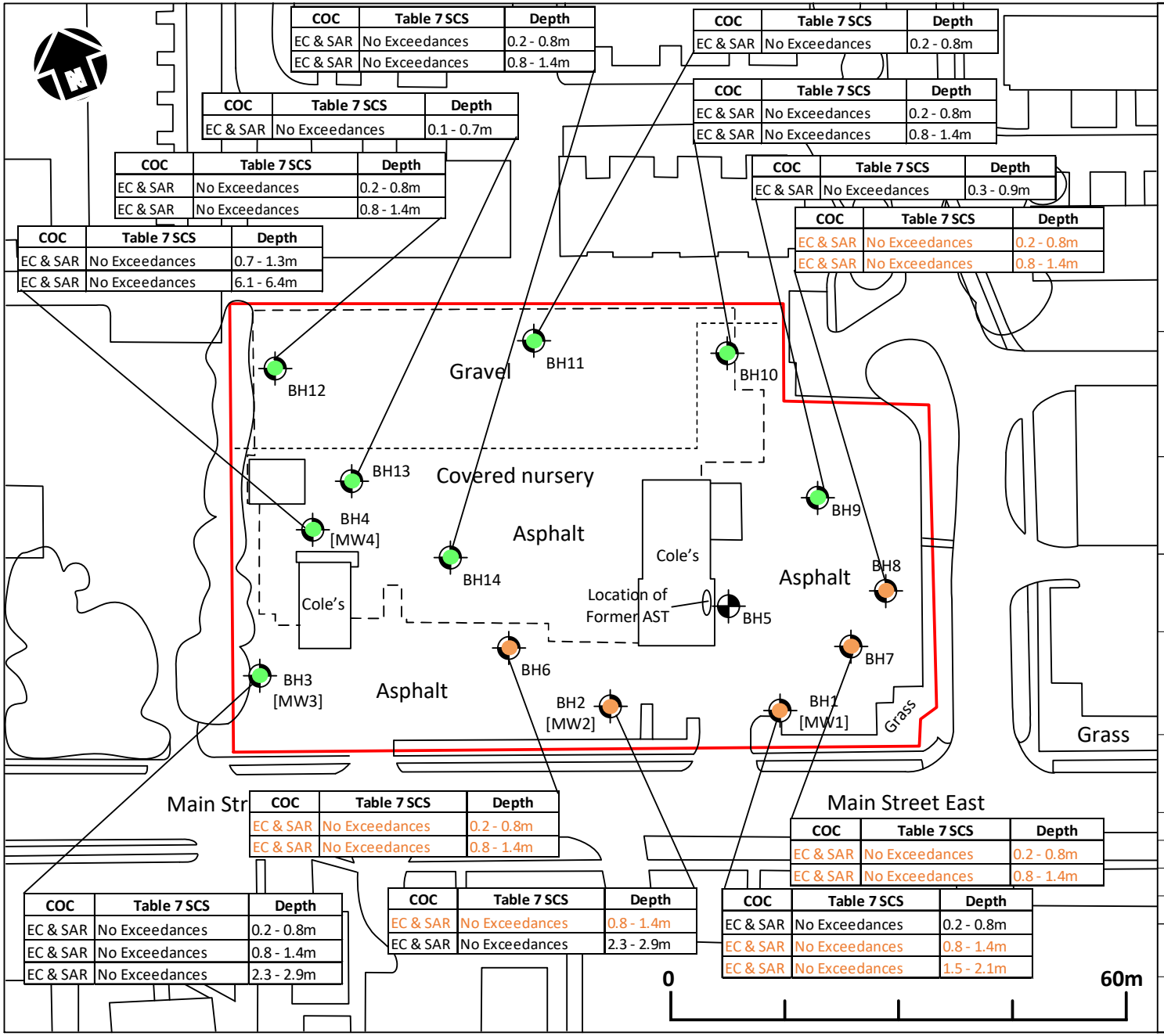
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – Metals and Hydride Forming Metals

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 3A – Soil – Metals.vsd

DRAWING No. 3A



COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.1 - 0.7m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.7 - 1.3m
EC & SAR	No Exceedances	6.1 - 6.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.3 - 0.9m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m
EC & SAR	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.8 - 1.4m
EC & SAR	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m
EC & SAR	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.8m
EC & SAR	No Exceedances	0.8 - 1.4m

LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed the Applicable Table 7 SCSs, however are exempt as per Ontario Regulation 153/04

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

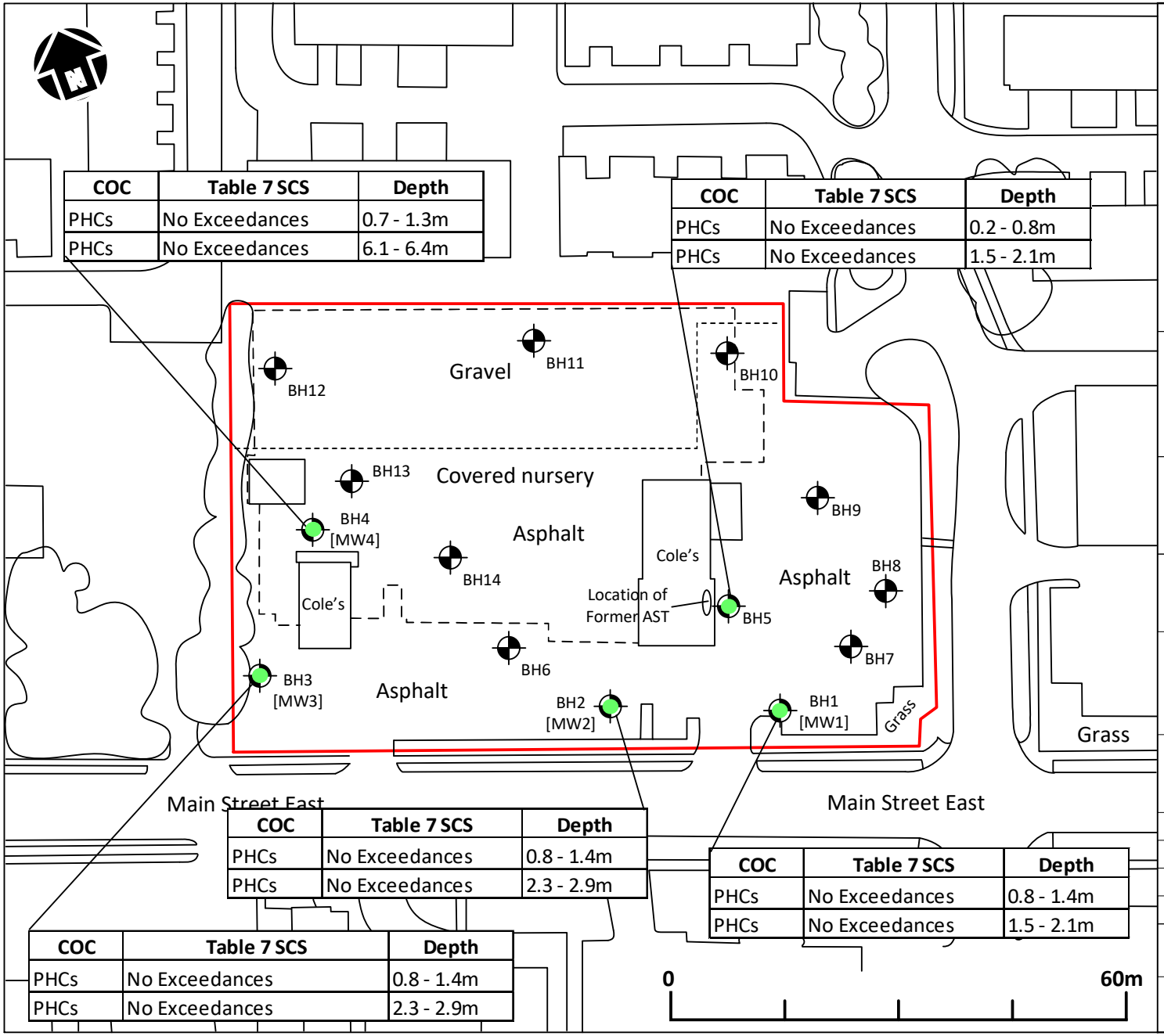
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – EC & SAR

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 3B – Soil – EC & SAR.vsd

DRAWING No. 3B



COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.7 - 1.3m
PHCs	No Exceedances	6.1 - 6.4m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.2 - 0.8m
PHCs	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.8 - 1.4m
PHCs	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.8 - 1.4m
PHCs	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.8 - 1.4m
PHCs	No Exceedances	2.3 - 2.9m

LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

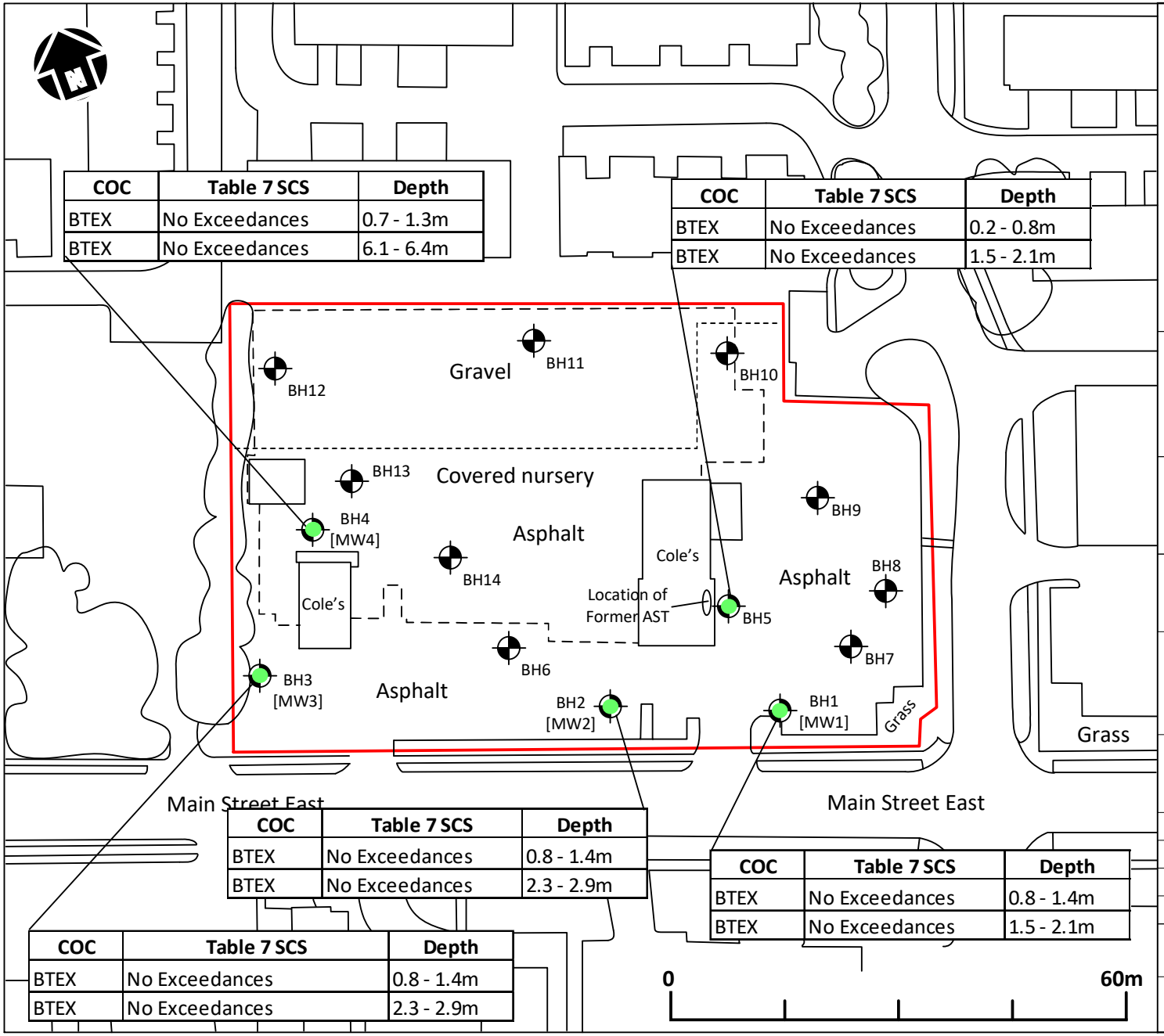
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 3C – Soil – PHCs.vsd

DRAWING No. 3C



COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.7 - 1.3m
BTEX	No Exceedances	6.1 - 6.4m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.2 - 0.8m
BTEX	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.8 - 1.4m
BTEX	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.8 - 1.4m
BTEX	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.8 - 1.4m
BTEX	No Exceedances	1.5 - 2.1m

LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

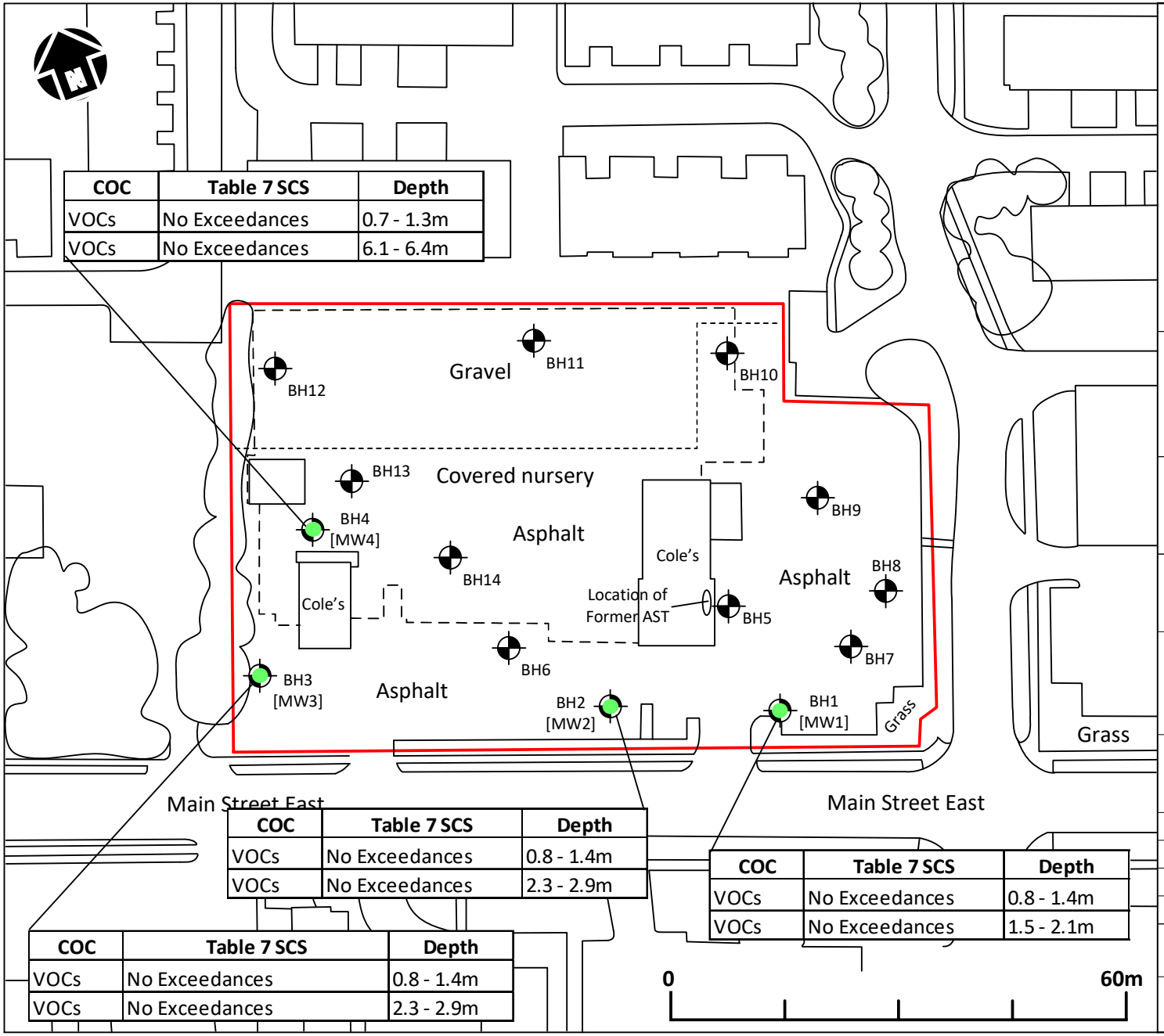
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – BTEX

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 3D – Soil – BTEX.vsd

DRAWING No. 3D



COC	Table 7 SCS	Depth
VOCs	No Exceedances	0.7 - 1.3m
VOCs	No Exceedances	6.1 - 6.4m

COC	Table 7 SCS	Depth
VOCs	No Exceedances	0.8 - 1.4m
VOCs	No Exceedances	2.3 - 2.9m

COC	Table 7 SCS	Depth
VOCs	No Exceedances	0.8 - 1.4m
VOCs	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
VOCs	No Exceedances	0.8 - 1.4m
VOCs	No Exceedances	2.3 - 2.9m

LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

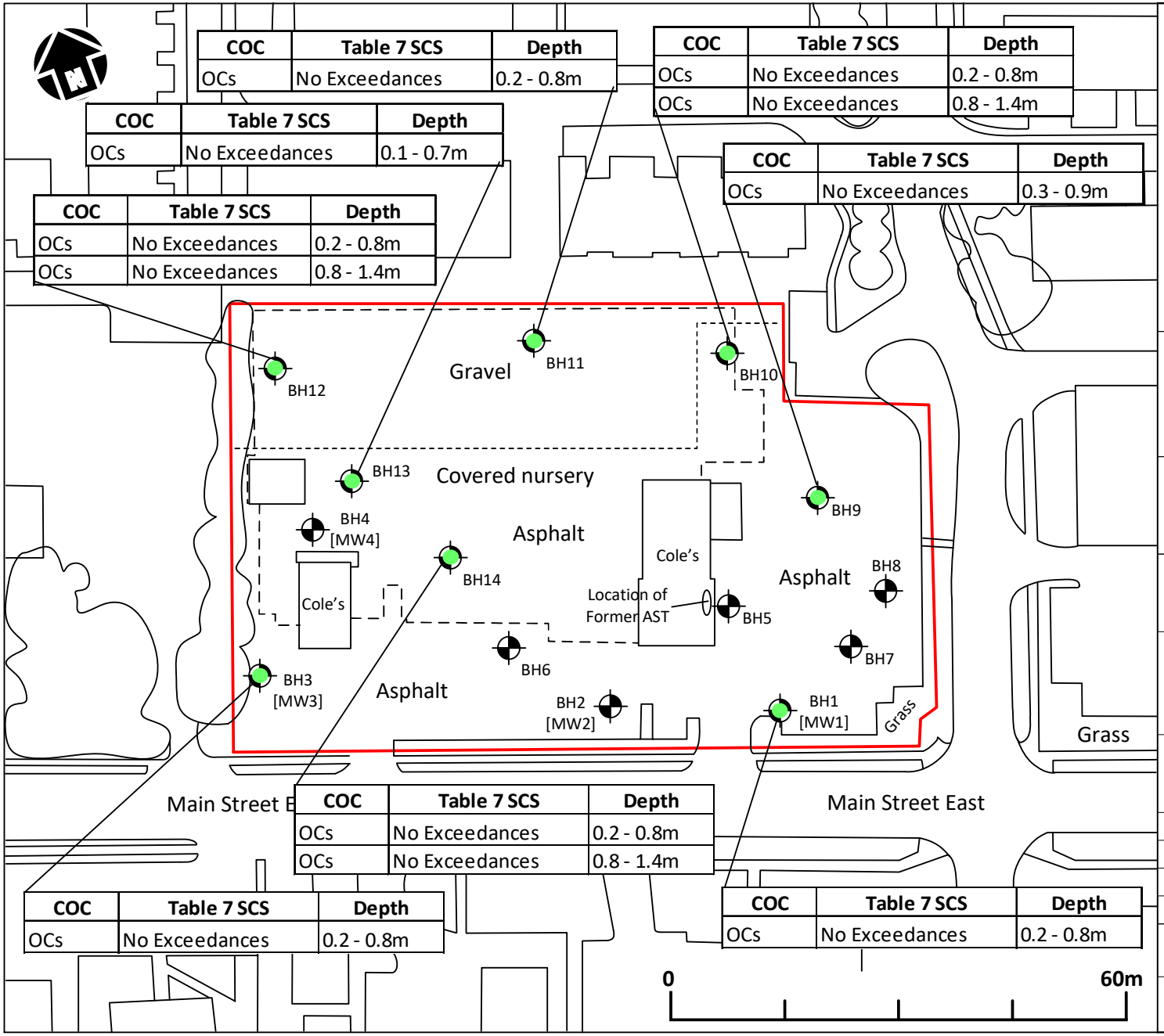
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – Volatile Organic Compounds [VOCs]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 3E – Soil – VOCs.vsd

DRAWING No. 3E



LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

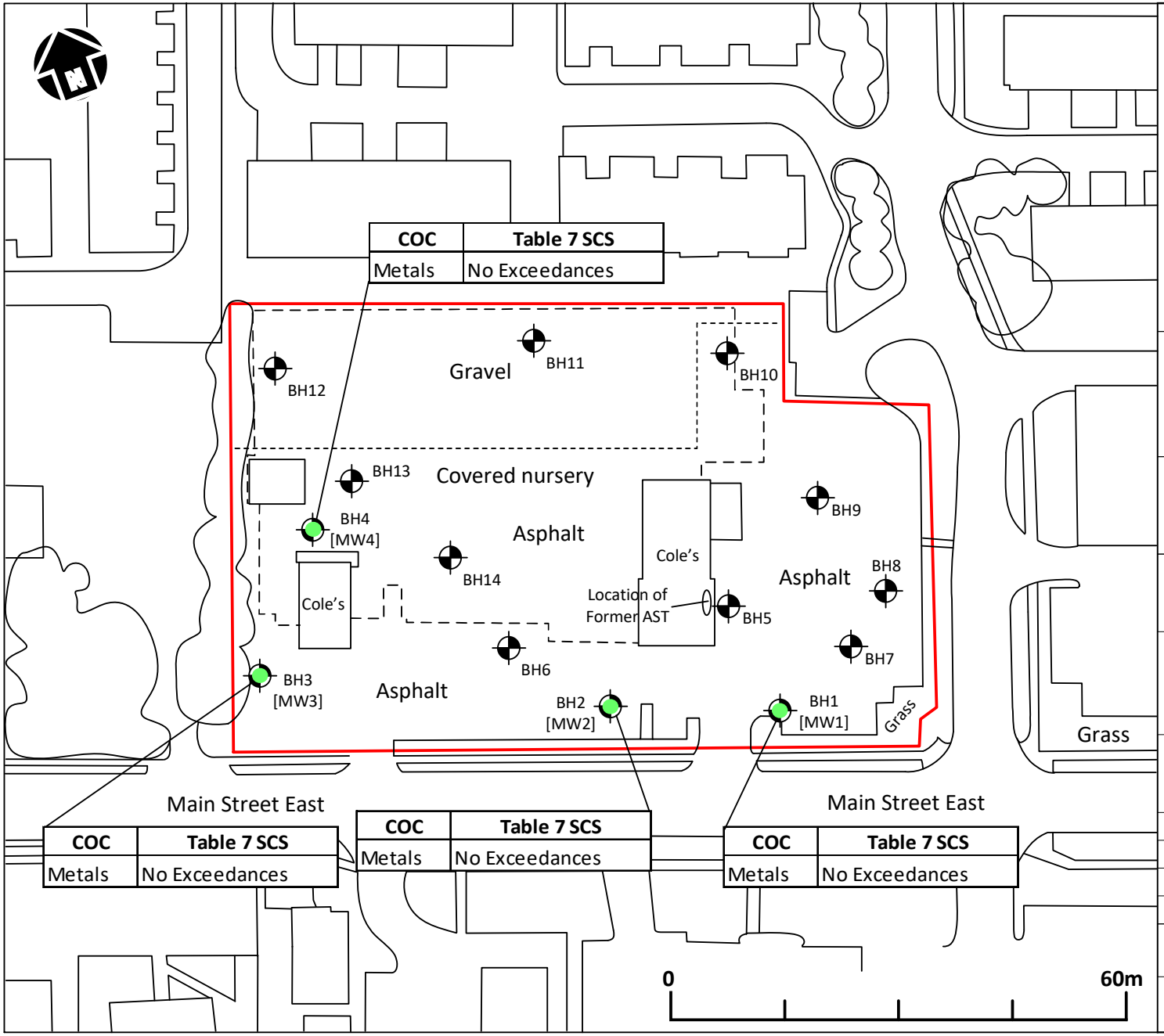
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – Organochlorine Pesticides [OCs]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 3F – Soil – OCs.vsd

DRAWING No. 3F



LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

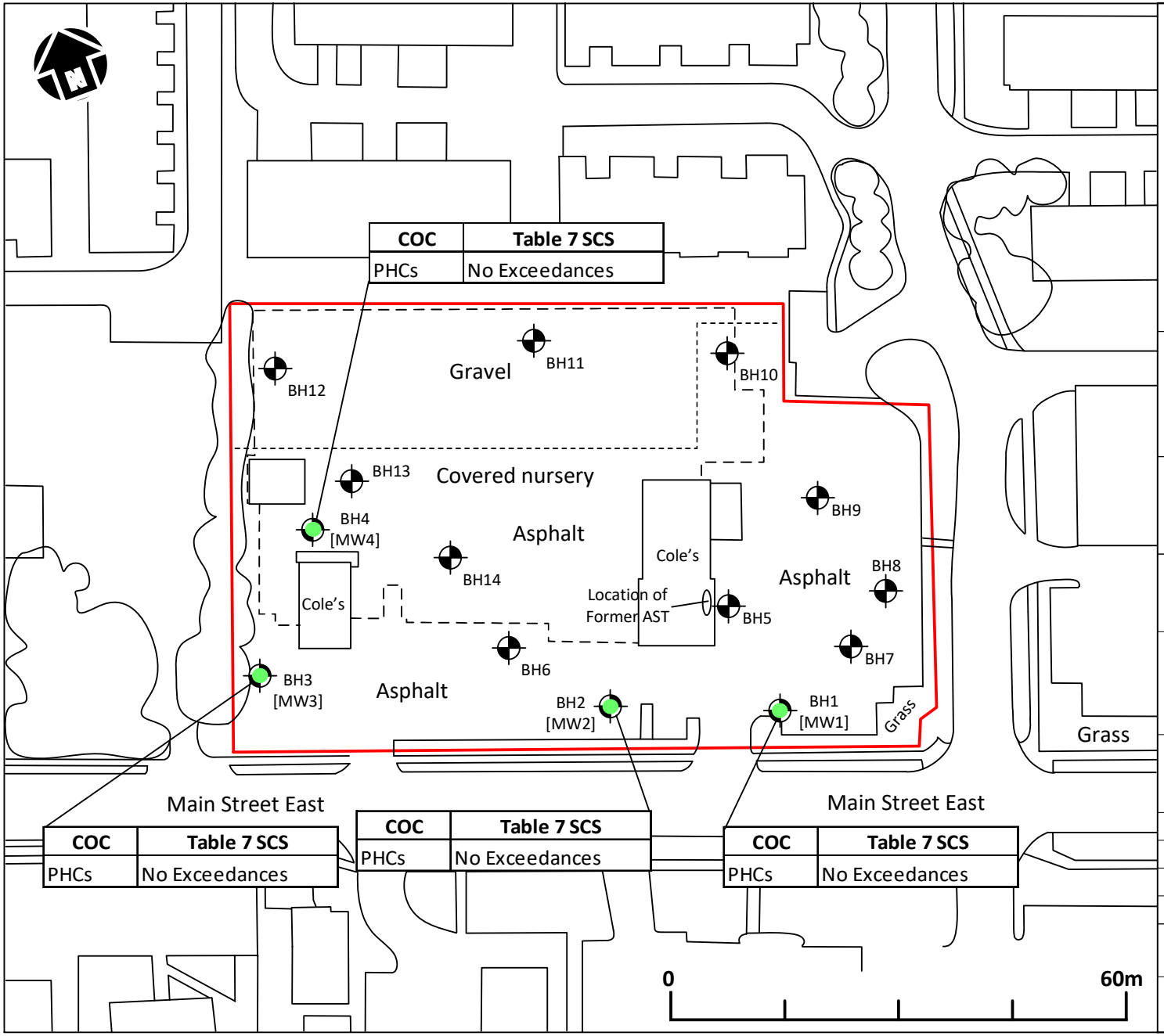
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary
Metals [Water]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 4A – Water – Metals.vsd

DRAWING No. 4A



LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

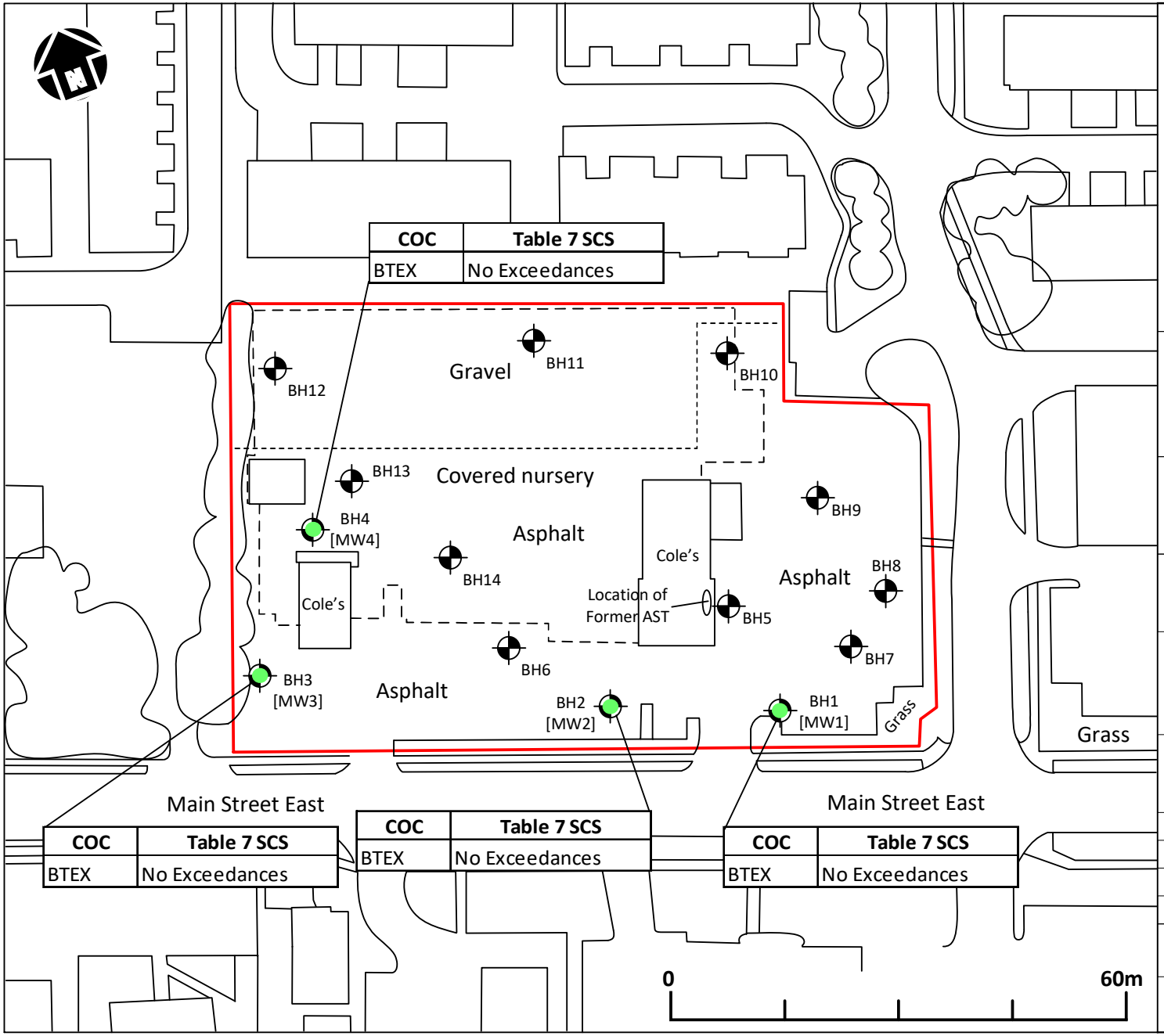
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary
Petroleum Hydrocarbons [Water]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 4B – Water – PHCs.vsd

DRAWING No. 4B



LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

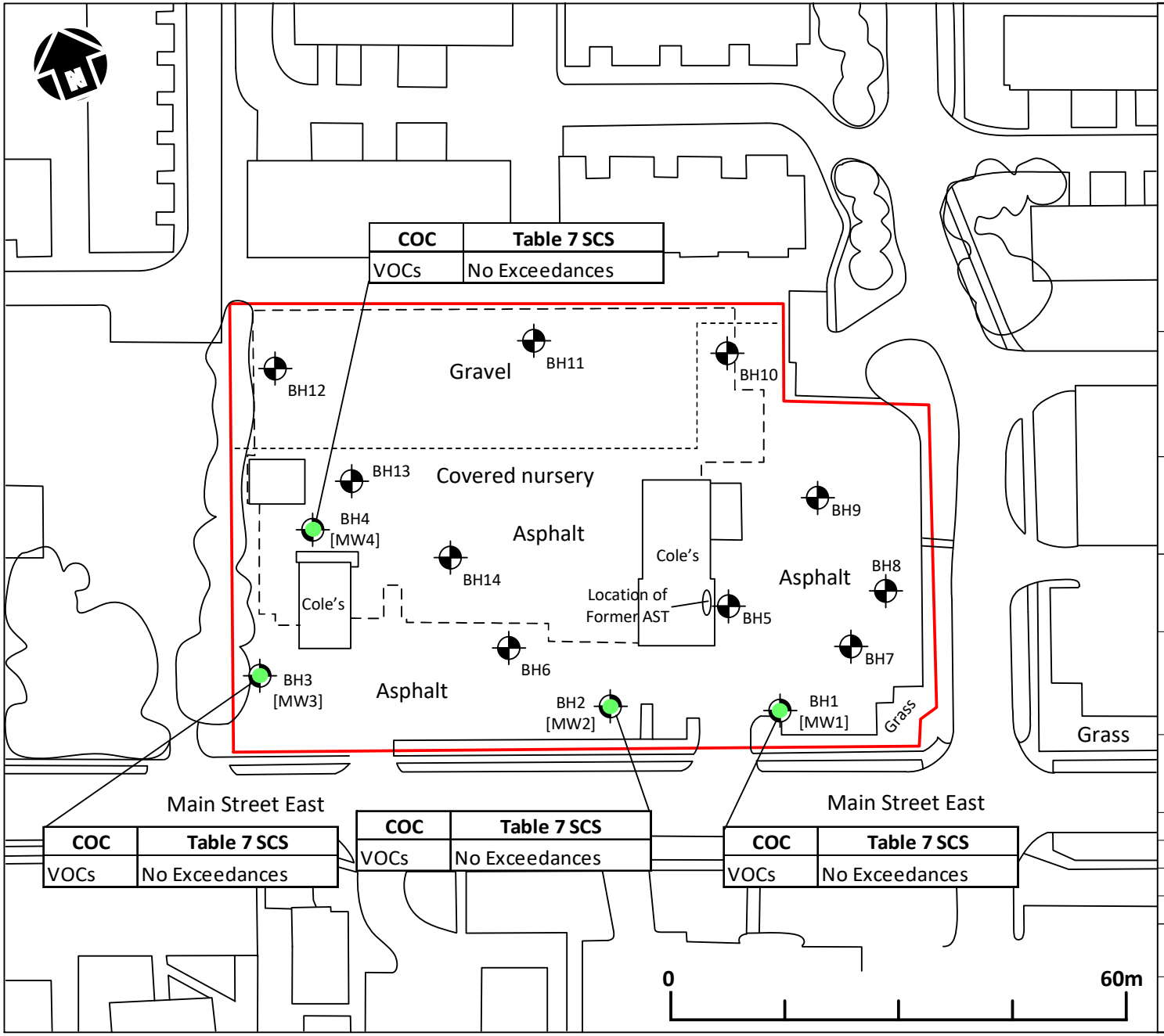
PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary
BTEX [Water]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 4C – Water – BTEX.vsd

DRAWING No. 4C



LEGEND

= Site Boundary

BH# = Borehole Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200154-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

PROJECT TITLE
Phase Two Environmental Site Assessment
141 – 149 Main Street East
Grimsby, Ontario

DRAWING TITLE
Analytical Data Summary
Volatile Organic Compounds [Water]

PROJECT No.	SM 200154-E
DATE	June 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200154 Drawing 4D – Water – VOCs.vsd

DRAWING No. 4D

Log of Borehole No. 1

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782780
E: 618186

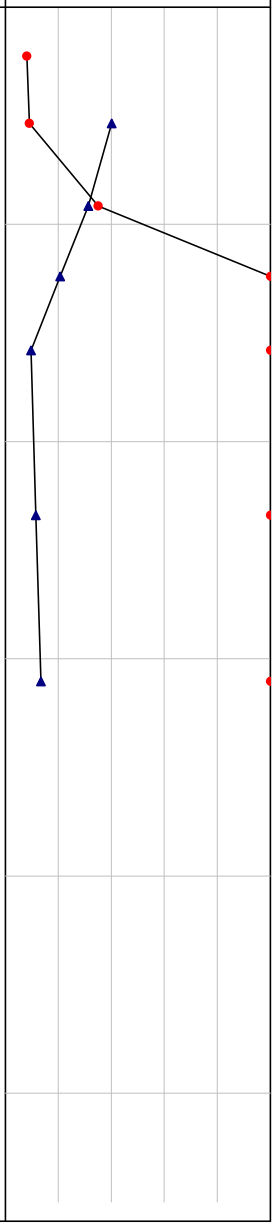
Depth (ft)	Depth (m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		94.74	Ground Surface							
0	0	94.36	**Pavement Structure** Approximately 100 millimetres of asphaltic concrete over 275 millimetres of compact granular base.							
1			**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose.	SS	1	8,5,3,4	8			
2	1	93.30		SS	2	3,4,5,12	9			
3				SS	3	7,15,20,22	35			
4				SS	4	17,17,50/3"	100			
5	2			SS	5	50/2"	100			
6			**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.							
7	3									
8										
9										
10										
11	4									
12										
13										
14										
15				SS	6	50/4"	100			
16	5									
17										
18										
19										
20	6	88.50		SS	7	50/4"	100			
21			End of Borehole							
22			NOTES:							
23	7		1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 6.2 metres.							
24										
25										
26	8		2. Borehole was recorded as caved to 5.9 metres depth and 'dry' upon completion and backfilled as per Ontario Regulation 903.							
27										
28										
29										
30	9		3. Soil samples will be discarded after 3 months unless otherwise directed by our client.							
31										
32										
33	10		4. A monitoring well was installed. The following free groundwater level readings have been measured: April 9, 2020: dry April 23, 2020: 5.16 metres depth							
34										
35										
36	11									

Well Data

SAMPLE

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 2

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782790
E: 618157

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	94.94	Ground Surface							
0 / 0	94.66	**Pavement Structure** Approximately 75 millimetres of asphaltic concrete over 200 millimetres of compact granular base.							
		Sandy Silt/Silty Sand Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose.	SS	1	6,3,2,2	5			
			SS	2	3,3,3,4	6			
6 / 2	93.10		SS	3	3,5,14,40	19			
		Queenston Shale Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	4	45,42,50/5"	100			
10 / 3			SS	5	50/3"	100			
15 / 5			SS	6	50/2"	100			
20 / 6	88.80		SS	7	50/2"	100			
		End of Borehole							

NOTES:

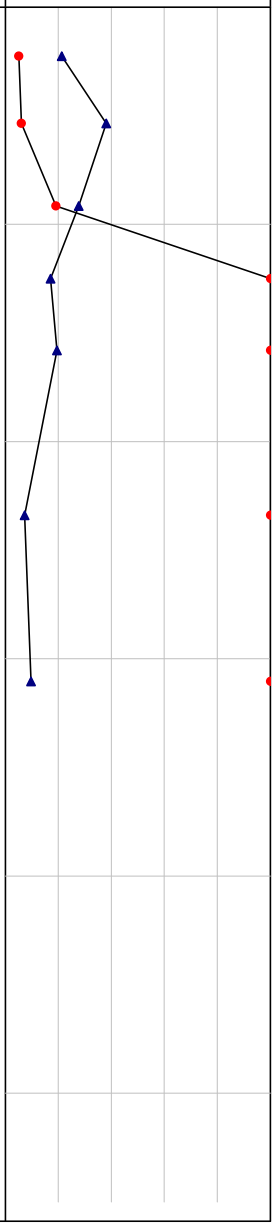
1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 6.2 metres.

2. Borehole was recorded as caved to 5.6 metres depth and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
April 9, 2020: dry
April 23, 2020: 5.19 metres depth

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 3

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782810
E: 618098

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	94.40	Ground Surface							
0 / 0	94.10	**Pavement Structure** Approximately 75 millimetres of asphaltic concrete over 225 millimetres of compact granular base.							
		Sandy Silt/Silty Sand Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose.	SS	1	10,5,5,6	10			
			SS	2	4,4,5,8	9			
1 /	92.60		SS	3	4,6,9,11	15			
2 /		**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	4	15,25, 40,50/2"	65			
3 /			SS	5	50/2"	100			
4 /			SS	6	35,50/4"	100			
5 /									
6 / 6	88.20	End of Borehole	SS	7	50/3"	100			
7 /									
8 /									
9 /									
10 /									
11 /									

NOTES:

1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 6.2 metres.

2. Borehole was recorded as caved to 5.8 metres depth and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
April 9, 2020: dry
April 23, 2020: 4.90 metres depth

Moisture Content w%: 10 20 30 40
Standard Penetration Test blows/300mm: 20 40 60 80

Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 4

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782832
E: 618110

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	94.56	Ground Surface							
0 / 0	94.16	**Pavement Structure** Approximately 100 millimetres of asphaltic concrete over 300 millimetres of compact granular base.							
5 / 1	92.80	**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose to compact.	SS	1	5,5,3,3	8			
			SS	2	3,3,5,4	6			
			SS	3	5,9,13,32	22			
10 / 3		**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	4	16,31,50/3"	100			
			SS	5	15, 50/6"	100			
15 / 5			SS	6	50/4"	100			
20 / 6	88.20		SS	7	40,50/6"	100			
23 / 7		End of Borehole							

NOTES:

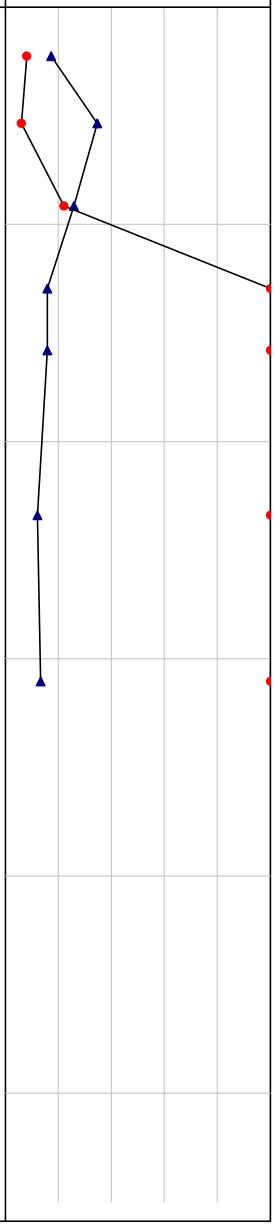
1. Borehole was advanced using hollow stem auger equipment on April 8, 2020 to termination at a depth of 6.4 metres.

2. Borehole was recorded as open and 'wet' at a depth of 5.4 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
April 9, 2020: dry
April 23, 2020: 3.43 metres depth

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: Hollow Stem Augers
Drill Date: April 8, 2020
Hole Size: 200 millimetres
Drilling Contractor: Ponthil Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 5

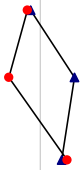
Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782797
E: 618185

Depth (ft)	Depth (m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		94.75	Ground Surface								
0	0	94.40	**Pavement Structure** Approximately 100 millimetres of asphaltic concrete over 250 millimetres of compact granular base.								
1			**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose.		SS	1	12,10,5,3	15			
2					SS	2	4,4,4,4	8			
3	1	92.90									
4		92.60	**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	3	2,10,20,25	30			
5			End of Borehole								
6	2										
7											
8											
9	3										
10											
11											
12											
13	4										
14											
15											
16											
17	5										
18											
19											
20	6										
21											
22											
23	7										
24											
25											
26	8										
27											
28											
29	9										
30											
31											
32											
33	10										
34											
35											
36	11										

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80



NOTES:

1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 2.1 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 6

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782802
E: 618145

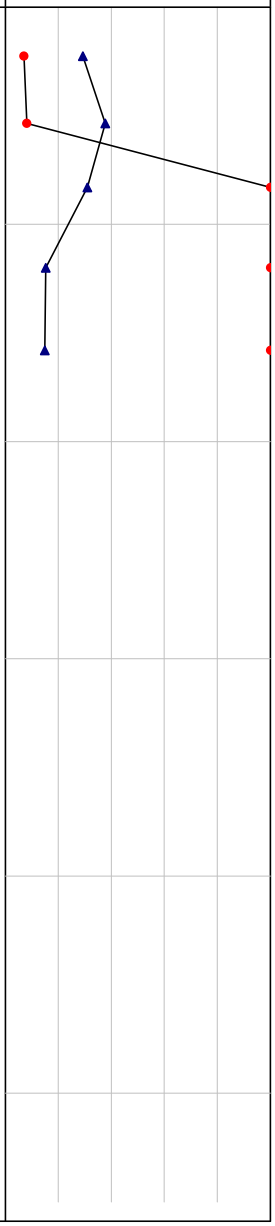
Depth (ft)	Depth (m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		94.61	Ground Surface							
0	0	94.41	**Pavement Structure** Approximately 50 millimetres of asphaltic concrete over 150 millimetres of compact granular base.							
1				SS	1	3,3,4,6	7			
2										
3	1		**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose.	SS	2	3,4,4,5	8			
4										
5		92.80		SS	3	7,50/5"	100			
6	2		**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.							
7										
8				SS	4	50/5"	100			
9										
10	3	91.50		SS	5	50/2"	100			
11			End of Borehole							
12										
13	4									
14										
15										
16										
17	5									
18										
19										
20	6									
21										
22										
23	7									
24										
25										
26	8									
27										
28										
29										
30	9									
31										
32										
33	10									
34										
35										
36	11									

Well Data

SAMPLE

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 3.1 metres.

2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

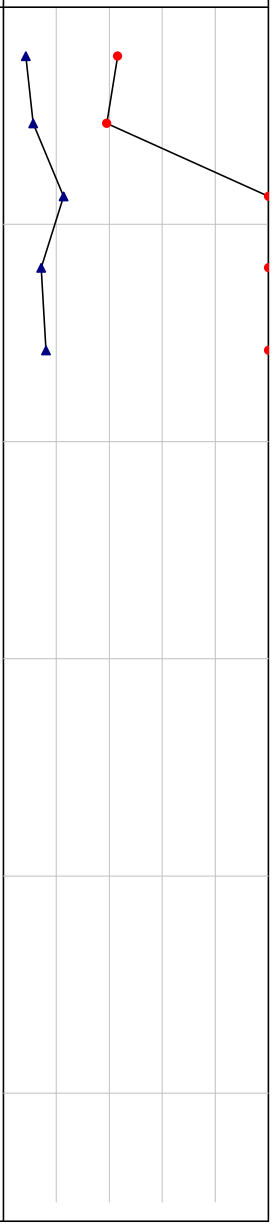
Log of Borehole No. 7

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782788
E: 618202

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	94.43	Ground Surface								
0 / 0	94.20	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete over 100 millimetres of compact granular base.								
		Sand and Gravel Fill Brown, trace silt, occasional organics and debris, dense.		SS	1	14,18,25,30	43			
1 /				SS	2	8,20,19,35	39			
	92.60			SS	3	12,23,50/5"	100			
2 /		**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	30,50/3"	100			
3 /	91.10			SS	5	40,50/5"	100			
		End of Borehole								

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 3.3 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

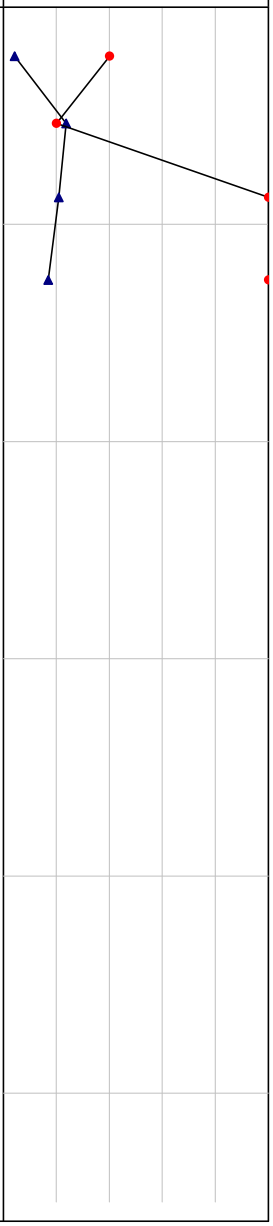
Log of Borehole No. 8

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782814
E: 618206

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	94.05	Ground Surface								
0 / 0	93.77	**Pavement Structure** Approximately 100 millimetres of asphaltic concrete over 175 millimetres of compact granular base.								
3 / 1	93.30	**Sand and Gravel Fill** Brown, trace silt, occasional organics and debris, compact to dense.		SS	1	11,25,15,5	40			
6 / 2				SS	2	7,7,13,24	20			
9 / 3	91.30	**Queenston Shale** Red with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	3	35,35,50/5"	100			
		End of Borehole		SS	4	10,11,50/5"	100			

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 2.7 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 9

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782814
E: 618206

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
		94.02		Ground Surface									
0	0	93.74		**Pavement Structure** Approximately 100 millimetres of asphaltic concrete over 175 millimetres of compact granular base.									
3	1	93.10		**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose.		SS	1	3,3,4,3	7				● ▲
				End of Borehole									
36	11			NOTES: 1. Borehole was advanced using solid stem auger equipment on April 3, 2020 to termination at a depth of 0.9 metres. 2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903. 3. Soil samples will be discarded after 3 months unless otherwise directed by our client.									

Drill Method: Solid Stem Augers
Drill Date: April 1, 2020
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: ZRV
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 10

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782840
E: 618198

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		94.93		Ground Surface								
0	0	94.68		**Pavement Structure** Approximately 50 millimetres of asphaltic concrete over 200 millimetres of compact granular base.								
1						SS	1	10,7,9,5	16			
2												
3	1											
4						SS	2	3,4,3,4	7			
5		93.40		**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose to compact.								
6	2			End of Borehole								
7												
8												
9												
10	3											
11												
12												
13	4											
14												
15												
16	5											
17												
18												
19												
20	6											
21												
22												
23	7											
24												
25												
26	8											
27												
28												
29	9											
30												
31												
32												
33	10											
34												
35												
36	11											

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80

NOTES:

1. Borehole was advanced using solid stem auger equipment on April 8, 2020 to termination at a depth of 1.4 metres.

2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: April 8, 2020
Hole Size: 150 millimetres
Drilling Contractor: Ponthil Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 11

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782853
E: 618165

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
0 / 0	94.75		Ground Surface									
0 / 0	94.55		**Pavement Structure** Approximately 200 millimetres of compact gravel base.									
1 /	94.00		**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, compact.		SS	1	4,7,6,4	13				● ▲
2 /			End of Borehole									
3 / 1												
4 /												
5 /												
6 / 2												
7 /												
8 /												
9 /												
10 / 3												
11 /												
12 /												
13 / 4												
14 /												
15 /												
16 / 5												
17 /												
18 /												
19 /												
20 / 6												
21 /												
22 /												
23 / 7												
24 /												
25 /												
26 / 8												
27 /												
28 /												
29 /												
30 / 9												
31 /												
32 /												
33 / 10												
34 /												
35 /												
36 / 11												

NOTES:

1. Borehole was advanced using solid stem auger equipment on April 8, 2020 to termination at a depth of 0.8 metres.

2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: April 8, 2020
Hole Size: 150 millimetres
Drilling Contractor: Ponthil Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 12

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782864
E: 618122

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
		94.33		Ground Surface									
0	0	94.08		**Pavement Structure** Approximately 250 millimetres of compact gravel base.									
1						SS	1	5,6,6,7	12				
2				**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, compact.									
3	1	92.80				SS	2	3,5,5,8	10				
4				End of Borehole									
5													
6	2												
7													
8													
9													
10	3												
11													
12													
13	4												
14													
15													
16	5												
17													
18													
19													
20	6			NOTES:									
21				1. Borehole was advanced using solid stem auger equipment on April 8, 2020 to termination at a depth of 1.5 metres.									
22													
23	7			2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903.									
24													
25													
26	8			3. Soil samples will be discarded after 3 months unless otherwise directed by our client.									
27													
28													
29	9												
30													
31													
32	10												
33													
34													
35													
36	11												

Drill Method: Solid Stem Augers
Drill Date: April 8, 2020
Hole Size: 150 millimetres
Drilling Contractor: Ponthil Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 13

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782842
E: 618128

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
		94.74		Ground Surface									
0	0			**Pavement Structure** Approximately 100 millimetres of compact gravel base.									
1		94.00		**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, compact.		SS	1	4,8,6,5	14				●
2	1			End of Borehole									
3													
4													
5	2												
6													
7													
8	3												
9													
10													
11													
12	4												
13													
14													
15	5												
16													
17													
18													
19	6												
20				NOTES:									
21				1. Borehole was advanced using solid stem auger equipment on April 8, 2020 to termination at a depth of 0.7 metres.									
22													
23	7			2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903.									
24													
25													
26	8			3. Soil samples will be discarded after 3 months unless otherwise directed by our client.									
27													
28													
29	9												
30													
31													
32	10												
33													
34													
35													
36	11												

Drill Method: Solid Stem Augers
Drill Date: April 8, 2020
Hole Size: 150 millimetres
Drilling Contractor: Ponthil Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 14

Project No: SM 200096-G
Project: Proposed Six-Storey Condo Building
Location: 141 Main Street East, Grimsby
Client: Losani Homes

Project Manager: Kyle Richardson, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4782824
E: 618138

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		95.47		Ground Surface								
0	0			**Pavement Structure** Approximately 150 millimetres of compact gravel base.		SS	1	4,7,5,5	12			
3	1	94.00		**Sandy Silt/Silty Sand** Brown, trace to some clay, trace gravel, occasional organics, reworked appearance with possible fill, loose to compact.		SS	2	3,3,4,5	7			
6	2			End of Borehole								
9	3											
12	4											
15	5											
20	6			NOTES: 1. Borehole was advanced using solid stem auger equipment on April 8, 2020 to termination at a depth of 1.4 metres. 2. Borehole was recorded open and 'dry' upon completion and backfilled as per Ontario Regulation 903. 3. Soil samples will be discarded after 3 months unless otherwise directed by our client.								
23	7											
26	8											
29	9											
33	10											
36	11											

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80

Drill Method: Solid Stem Augers
Drill Date: April 8, 2020
Hole Size: 150 millimetres
Drilling Contractor: Ponthil Drilling

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Appendix 'B'

1. AGAT Certificate of Analysis – Soil

AGAT Laboratories

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 200096

AGAT WORK ORDER: 20T590864

SOIL ANALYSIS REVIEWED BY: Yris Verastegui, Report Reviewer

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Apr 15, 2020

PAGES (INCLUDING COVER): 20

VERSION*: 1

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

*Notes

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-04-06 **DATE REPORTED: 2020-04-15**

		SAMPLE DESCRIPTION:		BH8 SS1	BH8 SS2	BH7 SS1	BH7 SS2	BH6 SS1	BH6 SS2	BH3 SS2	BH3 SS4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01
Parameter	**Unit**	**G / S**	**RDL**	**1069128**	**1069129**	**1069130**	**1069131**	**1069132**	**1069133**	**1069137**	**1069138**
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	11	4	5	5	4	4	18	5
Barium	µg/g	220	2	88	201	64	34	18	25	96	94
Beryllium	µg/g	2.5	0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.5	0.8
Boron	µg/g	36	5	15	24	15	9	<5	<5	9	24
Boron (Hot Water Extractable)	µg/g	NA	0.10	1.26	0.48	1.00	0.45	0.14	<0.10	0.56	0.70
Cadmium	µg/g	1.2	0.5	**2.9**	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	5	9	25	16	10	10	8	15	23
Cobalt	µg/g	21	0.5	2.9	13.5	4.2	3.6	6.4	4.6	6.0	12.9
Copper	µg/g	92	1	13	7	14	12	12	19	20	6
Lead	µg/g	120	1	**172**	7	**168**	27	6	5	80	6
Molybdenum	µg/g	2	0.5	<0.5	0.8	1.0	<0.5	<0.5	<0.5	0.6	0.9
Nickel	µg/g	82	1	7	34	11	7	10	10	13	31
Selenium	µg/g	1.5	0.4	<0.4	<0.4	0.7	<0.4	<0.4	<0.4	0.5	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	0.5	0.8	<0.5	<0.5	<0.5	0.9	0.7
Vanadium	µg/g	86	1	12	28	20	14	25	18	24	28
Zinc	µg/g	290	5	**330**	66	267	83	25	31	67	62
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	**2.58**	0.439	**0.875**	**1.10**	0.543	**1.27**	0.409	0.213
Sodium Adsorption Ratio	NA	2.4	NA	**19.7**	**8.58**	**11.3**	**3.61**	**14.0**	**36.8**	0.856	1.44
pH, 2:1 CaCl2 Extraction	pH Units		NA	8.54	7.67	8.52	8.40	7.42	7.78	7.56	7.94

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-04-06

DATE REPORTED: 2020-04-15

		SAMPLE DESCRIPTION:		BH2 SS2	BH2 SS4	BH1 SS2	BH1 SS3	Dup1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01
Parameter	Unit	G / S	RDL	1069139	1069140	1069142	1069143	1069145
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	7	5	4	6
Barium	µg/g	220	2	32	169	77	84	116
Beryllium	µg/g	2.5	0.5	<0.5	0.7	<0.5	0.6	0.7
Boron	µg/g	36	5	<5	19	7	12	18
Boron (Hot Water Extractable)	µg/g	NA	0.10	0.11	0.52	<0.10	0.17	0.53
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	5	13	22	16	18	23
Cobalt	µg/g	21	0.5	6.2	12.9	7.7	10.1	12.6
Copper	µg/g	92	1	18	6	22	15	9
Lead	µg/g	120	1	6	8	6	5	14
Molybdenum	µg/g	2	0.5	<0.5	0.8	<0.5	<0.5	0.9
Nickel	µg/g	82	1	13	30	16	24	30
Selenium	µg/g	1.5	0.4	<0.4	<0.4	0.5	<0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	0.7	0.5	0.5	0.7
Vanadium	µg/g	86	1	23	25	26	24	27
Zinc	µg/g	290	5	90	62	42	51	69
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	**2.72**	0.246	0.259	0.244	0.365
Sodium Adsorption Ratio	NA	2.4	NA	**9.45**	2.06	**5.65**	**5.58**	1.17
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.52	7.89	7.47	7.00	7.77

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-04-06 **DATE REPORTED: 2020-04-15**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1069128-1069145 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2020-04-06

DATE REPORTED: 2020-04-15

		SAMPLE DESCRIPTION:		BH3 SS1	BH1 SS1	BHA SS1
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01
Parameter	Unit	G / S	RDL	1069136	1069141	1069144
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	7	4
Barium	µg/g	220	2	36	82	32
Beryllium	µg/g	2.5	0.5	<0.5	<0.5	<0.5
Boron	µg/g	36	5	5	9	5
Cadmium	µg/g	1.2	0.5	**1.7**	<0.5	<0.5
Chromium	µg/g	70	5	9	14	13
Cobalt	µg/g	21	0.5	3.9	7.0	7.1
Copper	µg/g	92	1	8	11	15
Lead	µg/g	120	1	103	28	10
Molybdenum	µg/g	2	0.5	<0.5	1.1	<0.5
Nickel	µg/g	82	1	8	15	13
Selenium	µg/g	1.5	0.4	<0.4	0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	1.0	0.5
Vanadium	µg/g	86	1	18	21	22
Zinc	µg/g	290	5	**639**	89	43

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2020-04-06

DATE REPORTED: 2020-04-15

		SAMPLE DESCRIPTION:		BH3 SS1	BH1 SS1	BHA SS1
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01
Parameter	**Unit**	**G / S**	**RDL**	**1069136**	**1069141**	**1069144**
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	**0.086**	<0.007	<0.007
DDD	µg/g	0.05	0.007	0.023	<0.007	<0.007
DDT	µg/g	1.4	0.007	0.039	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.01	0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	<0.01
Moisture Content	%		0.1	12.4	8.6	18.0
Surrogate	**Unit**	**Acceptable Limits**				
TCMX	%	50-140		70	80	76
Decachlorobiphenyl	%	50-140		76	81	76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1069136-1069144 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2020-04-06 **DATE REPORTED: 2020-04-15**

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS4	BH2 SS2	BH2 SS4	BH1 SS2	BH1 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01
Parameter	**Unit**	**G / S**	**RDL**	**1069137**	**1069138**	**1069139**	**1069140**	**1069142**	**1069143**
F1 (C6 to C10)	µg/g	25	5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	17.8	9.6	15.2	6.2	13.9	15.4
Surrogate	**Unit**	**Acceptable Limits**							
Terphenyl	%	60-140		87	78	95	81	111	96

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1069137-1069143 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2020-04-06 **DATE REPORTED: 2020-04-15**

		SAMPLE DESCRIPTION:		BH5 SS1	BH5 SS3	Dup2
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01
Parameter	**Unit**	**G / S**	**RDL**	**1069134**	**1069135**	**1069146**
Benzene	µg/g	0.02	0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.2	0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	0.05	0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	0.05	0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	25	5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA
Moisture Content	%		0.1	13.6	10.2	6.9
Surrogate	**Unit**	**Acceptable Limits**				
Terphenyl	%	60-140		89	66	86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1069134-1069146 Results are based on sample dry weight.
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2020-04-06 **DATE REPORTED: 2020-04-15**

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS4	BH2 SS2	BH2 SS4	BH1 SS2	BH1 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01
Parameter	Unit	G / S	RDL	1069137	1069138	1069139	1069140	1069142	1069143
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Certified By:

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T590864

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2020-04-06 **DATE REPORTED: 2020-04-15**

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS4	BH2 SS2	BH2 SS4	BH1 SS2	BH1 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01	2020-04-01
Parameter	**Unit**	**G / S**	**RDL**	**1069137**	**1069138**	**1069139**	**1069140**	**1069142**	**1069143**
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Surrogate	**Unit**	**Acceptable Limits**							
Toluene-d8	% Recovery	50-140		96	94	95	94	98	101
4-Bromofluorobenzene	% Recovery	50-140		86	86	87	86	83	83

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1069137-1069143 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

Guideline Violation

AGAT WORK ORDER: 20T590864

PROJECT: 200096

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
1069128	BH8 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cadmium	µg/g	1.2	2.9
1069128	BH8 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	2.58
1069128	BH8 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Lead	µg/g	120	172
1069128	BH8 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	19.7
1069128	BH8 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Zinc	µg/g	290	330
1069129	BH8 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	8.58
1069130	BH7 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	0.875
1069130	BH7 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Lead	µg/g	120	168
1069130	BH7 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	11.3
1069131	BH7 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	1.10
1069131	BH7 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	3.61
1069132	BH6 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	14.0
1069133	BH6 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	1.27
1069133	BH6 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	36.8
1069136	BH3 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Cadmium	µg/g	1.2	1.7
1069136	BH3 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Zinc	µg/g	290	639
1069136	BH3 SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - OC Pesticides (Soil)	DDE	µg/g	0.05	0.086
1069139	BH2 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	2.72
1069139	BH2 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	9.45
1069142	BH1 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	5.65
1069143	BH1 SS3	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	5.58

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

Soil Analysis

RPT Date: Apr 15, 2020			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
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	1069128	1069128	<0.8	<0.8	NA	< 0.8	127%	70%	130%	99%	80%	120%	86%	70%	130%
Arsenic	1069128	1069128	11	11	0.0%	< 1	112%	70%	130%	102%	80%	120%	105%	70%	130%
Barium	1069128	1069128	88	87	1.1%	< 2	103%	70%	130%	98%	80%	120%	100%	70%	130%
Beryllium	1069128	1069128	<0.5	<0.5	NA	< 0.5	94%	70%	130%	117%	80%	120%	93%	70%	130%
Boron	1069128	1069128	15	14	NA	< 5	80%	70%	130%	111%	80%	120%	85%	70%	130%
Boron (Hot Water Extractable)	1069128	1069128	1.26	1.28	1.6%	< 0.10	117%	60%	140%	98%	70%	130%	100%	60%	140%
Cadmium	1069128	1069128	2.9	3.2	9.8%	< 0.5	107%	70%	130%	98%	80%	120%	100%	70%	130%
Chromium	1069128	1069128	9	9	NA	< 5	96%	70%	130%	91%	80%	120%	91%	70%	130%
Cobalt	1069128	1069128	2.9	2.9	0.0%	< 0.5	85%	70%	130%	87%	80%	120%	85%	70%	130%
Copper	1069128	1069128	13	13	0.0%	< 1	96%	70%	130%	96%	80%	120%	84%	70%	130%
Lead	1069128	1069128	172	168	2.4%	< 1	106%	70%	130%	91%	80%	120%	80%	70%	130%
Molybdenum	1069128	1069128	<0.5	<0.5	NA	< 0.5	88%	70%	130%	94%	80%	120%	100%	70%	130%
Nickel	1069128	1069128	7	6	15.4%	< 1	90%	70%	130%	97%	80%	120%	89%	70%	130%
Selenium	1069128	1069128	<0.4	<0.4	NA	< 0.4	124%	70%	130%	97%	80%	120%	101%	70%	130%
Silver	1069128	1069128	<0.2	<0.2	NA	< 0.2	98%	70%	130%	98%	80%	120%	92%	70%	130%
Thallium	1069128	1069128	<0.4	<0.4	NA	< 0.4	93%	70%	130%	99%	80%	120%	94%	70%	130%
Uranium	1069128	1069128	<0.5	<0.5	NA	< 0.5	95%	70%	130%	100%	80%	120%	101%	70%	130%
Vanadium	1069128	1069128	12	12	0.0%	< 1	88%	70%	130%	84%	80%	120%	90%	70%	130%
Zinc	1069128	1069128	330	337	2.1%	< 5	110%	70%	130%	100%	80%	120%	130%	70%	130%
Chromium, Hexavalent	1068723		<0.2	<0.2	NA	< 0.2	90%	70%	130%	93%	80%	120%	81%	70%	130%
Cyanide, Free	1069145	1069145	<0.040	<0.040	NA	< 0.040	100%	70%	130%	98%	80%	120%	96%	70%	130%
Mercury	1069128	1069128	<0.10	<0.10	NA	< 0.10	116%	70%	130%	102%	80%	120%	105%	70%	130%
Electrical Conductivity (2:1)	1069128	1069128	2.58	2.25	13.7%	< 0.005	112%	80%	120%	NA			NA		
Sodium Adsorption Ratio	1069128	1069128	19.7	19.9	1.0%	NA	NA			NA			NA		
pH, 2:1 CaCl2 Extraction	1069145	1069145	7.77	7.86	1.2%	NA	101%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

O. Reg. 153(511) - Metals & Inorganics (Soil)															
Cyanide, Free	1072340		<0.040	<0.040	NA	< 0.040	98%	70%	130%	100%	80%	120%	90%	70%	130%

Comments: NA signifies Not Applicable.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Certified By: Iris Verástegui

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

Trace Organics Analysis

RPT Date: Apr 15, 2020

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (Soil)															
Benzene	1067180		< 0.02	< 0.02	NA	< 0.02	103%	50%	140%	95%	60%	130%	85%	50%	140%
Toluene	1067180		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	96%	60%	130%	88%	50%	140%
Ethylbenzene	1067180		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	92%	60%	130%	86%	50%	140%
Xylenes (Total)	1067180		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	99%	60%	130%	89%	50%	140%
F1 (C6 to C10)	1067180		< 5	< 5	NA	< 5	91%	60%	140%	93%	60%	140%	87%	60%	140%
F2 (C10 to C16)	1065689		< 10	< 10	NA	< 10	113%	60%	140%	89%	60%	140%	85%	60%	140%
F3 (C16 to C34)	1065689		< 50	< 50	NA	< 50	109%	60%	140%	86%	60%	140%	98%	60%	140%
F4 (C34 to C50)	1065689		< 50	< 50	NA	< 50	96%	60%	140%	89%	60%	140%	111%	60%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	1069136	1069136	< 0.01	< 0.01	NA	< 0.01	95%	50%	140%	103%	50%	140%	103%	50%	140%
Gamma-Hexachlorocyclohexane	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	108%	50%	140%	90%	50%	140%
Heptachlor	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	102%	50%	140%	93%	50%	140%	99%	50%	140%
Aldrin	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	106%	50%	140%	100%	50%	140%	97%	50%	140%
Heptachlor Epoxide	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	104%	50%	140%	108%	50%	140%
Endosulfan	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	101%	50%	140%	106%	50%	140%	103%	50%	140%
Chlordane	1069136	1069136	< 0.007	< 0.007	NA	< 0.007	99%	50%	140%	107%	50%	140%	106%	50%	140%
DDE	1069136	1069136	0.086	0.10	15.1%	< 0.007	98%	50%	140%	104%	50%	140%	108%	50%	140%
DDD	1069136	1069136	0.023	0.032	NA	< 0.007	101%	50%	140%	105%	50%	140%	105%	50%	140%
DDT	1069136	1069136	0.039	0.036	8.0%	< 0.007	106%	50%	140%	104%	50%	140%	90%	50%	140%
Dieldrin	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	104%	50%	140%	106%	50%	140%	106%	50%	140%
Endrin	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	104%	50%	140%	100%	50%	140%	100%	50%	140%
Methoxychlor	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	103%	50%	140%	99%	50%	140%	104%	50%	140%
Hexachlorobenzene	1069136	1069136	< 0.005	< 0.005	NA	< 0.005	108%	50%	140%	106%	50%	140%	104%	50%	140%
Hexachlorobutadiene	1069136	1069136	< 0.01	< 0.01	NA	< 0.01	100%	50%	140%	108%	50%	140%	107%	50%	140%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	1062884		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	97%	50%	140%	95%	50%	140%
Vinyl Chloride	1062884		< 0.02	< 0.02	NA	< 0.02	105%	50%	140%	81%	50%	140%	90%	50%	140%
Bromomethane	1062884		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	91%	50%	140%	100%	50%	140%
Trichlorofluoromethane	1062884		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	87%	50%	140%	101%	50%	140%
Acetone	1062884		< 0.50	< 0.50	NA	< 0.50	103%	50%	140%	101%	50%	140%	84%	50%	140%
1,1-Dichloroethylene	1062884		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	82%	60%	130%	103%	50%	140%
Methylene Chloride	1062884		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	82%	60%	130%	106%	50%	140%
Trans- 1,2-Dichloroethylene	1062884		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	75%	60%	130%	107%	50%	140%
Methyl tert-butyl Ether	1062884		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	89%	60%	130%	91%	50%	140%
1,1-Dichloroethane	1062884		< 0.02	< 0.02	NA	< 0.02	108%	50%	140%	99%	60%	130%	105%	50%	140%
Methyl Ethyl Ketone	1062884		< 0.50	< 0.50	NA	< 0.50	103%	50%	140%	101%	50%	140%	101%	50%	140%
Cis- 1,2-Dichloroethylene	1062884		< 0.02	< 0.02	NA	< 0.02	89%	50%	140%	93%	60%	130%	104%	50%	140%
Chloroform	1062884		< 0.04	< 0.04	NA	< 0.04	85%	50%	140%	93%	60%	130%	106%	50%	140%
1,2-Dichloroethane	1062884		< 0.03	< 0.03	NA	< 0.03	109%	50%	140%	83%	60%	130%	102%	50%	140%

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

Trace Organics Analysis (Continued)

RPT Date: Apr 15, 2020			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
1,1,1-Trichloroethane	1062884		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	103%	60%	130%	99%	50%	140%
Carbon Tetrachloride	1062884		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	82%	60%	130%	87%	50%	140%
Benzene	1062884		< 0.02	< 0.02	NA	< 0.02	111%	50%	140%	77%	60%	130%	112%	50%	140%
1,2-Dichloropropane	1062884		< 0.03	< 0.03	NA	< 0.03	89%	50%	140%	84%	60%	130%	104%	50%	140%
Trichloroethylene	1062884		< 0.03	< 0.03	NA	< 0.03	103%	50%	140%	76%	60%	130%	109%	50%	140%
Bromodichloromethane	1062884		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	87%	60%	130%	95%	50%	140%
Methyl Isobutyl Ketone	1062884		< 0.50	< 0.50	NA	< 0.50	82%	50%	140%	80%	50%	140%	104%	50%	140%
1,1,2-Trichloroethane	1062884		< 0.04	< 0.04	NA	< 0.04	96%	50%	140%	92%	60%	130%	121%	50%	140%
Toluene	1062884		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	86%	60%	130%	99%	50%	140%
Dibromochloromethane	1062884		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	102%	60%	130%	98%	50%	140%
Ethylene Dibromide	1062884		< 0.04	< 0.04	NA	< 0.04	92%	50%	140%	91%	60%	130%	113%	50%	140%
Tetrachloroethylene	1062884		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	91%	60%	130%	93%	50%	140%
1,1,1,2-Tetrachloroethane	1062884		< 0.04	< 0.04	NA	< 0.04	93%	50%	140%	93%	60%	130%	112%	50%	140%
Chlorobenzene	1062884		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	85%	60%	130%	111%	50%	140%
Ethylbenzene	1062884		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	78%	60%	130%	115%	50%	140%
m & p-Xylene	1062884		< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	83%	60%	130%	124%	50%	140%
Bromoform	1062884		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	111%	60%	130%	92%	50%	140%
Styrene	1062884		< 0.05	< 0.05	NA	< 0.05	77%	50%	140%	89%	60%	130%	117%	50%	140%
1,1,2,2-Tetrachloroethane	1062884		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	94%	60%	130%	89%	50%	140%
o-Xylene	1062884		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	84%	60%	130%	110%	50%	140%
1,3-Dichlorobenzene	1062884		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	81%	60%	130%	101%	50%	140%
1,4-Dichlorobenzene	1062884		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	85%	60%	130%	90%	50%	140%
1,2-Dichlorobenzene	1062884		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	81%	60%	130%	110%	50%	140%
1,3-Dichloropropene (Cis + Trans)	1062884		< 0.04	< 0.04	NA	< 0.04	94%	50%	140%	92%	60%	130%	96%	50%	140%
n-Hexane	1062884		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	103%	60%	130%	96%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Extractable)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, Free	INOR-93-6052	modified from ON MOECC E3015 and SM 4500-CN- I	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6036	modified from MSA PART 3, CH 14 and SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Benzene	VOL-91-5009	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	P&T GC/MS
Ethylbenzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	P&T GC/MS
Xylenes (Total)	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T590864

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141 Main St. E., Grimsby

SAMPLED BY:Zachary

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Chlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS

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 #: 20T590864
Cooler Quantity:
Arrival Temperatures: 4.6 | 4.4 | 4.6
4 | 4 | 4.2
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes: ice

Report Information:
Company: Soil Mat
Contact: Peter Markesic
Address: 130 Bancing Dr.
Phone: Fax:
Reports to be sent to:
1. Email: Pmarkesic@soilmat.ca
2. Email: zvangalen@soilmat.ca

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)
☑ Regulation 153/04 — Table 1 (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): 4 Day
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: 200096
Site Location: 141 Main St. E. Grimsby
Sampled By: Zachary
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)	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 + BTEX	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use
BH8 SS1	Apr.1	2:15	1	Soil				✓													
BH8 SS2		2:20	1					✓													
BH7 SS1		1:25	1					✓													
BH7 SS2		1:35	1					✓													
BH6 SS1		9:15	1					✓													
BH6 SS2		9:20	1					✓													
BH5 SS1		3:00	2													✓					
BH5 SS3		3:10	2													✓					
BH3 SS1		8:05	2						✓										✓		
BH3 SS2		8:05	3					✓							✓	✓					
BH3 SS4		8:15	3					✓							✓	✓					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Steph Heczko	April 6/20	11:45AM	John Chypyha	Apr 6	12:08
			John Chypyha	Apr 6	4:10

Page 1 of 2
N°: T087045

Document ID: Drv-78-1511-015
Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT
Date Issued: March 16, 2018

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: Soil Mat
Contact: Peter Manteric
Address: 130 Lancing Dr.

Phone: Fax:
Reports to be sent to:
1. Email: pmanteric@soilmat.ca
2. Email: zvangalen@soilmat.ca

Project Information:

Project: 20004b
Site Location: 14 Main St. E. Grimsby
Sampled By: Zachary
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 1 *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: 4.6 | 4.4 | 4.6
4 | 4 | 4.2
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): 4 Days
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)	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+ BTEX	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use
BH2 SS2	Apr 1	10:10	3	Soil			✓							✓	✓						
BH2 SS4		10:20	3				✓							✓	✓				✓		
BH1 SS1		12:00	2					✓													
BH1 SS2		12:10	3				✓							✓	✓						
BH1 SS3		12:20	3				✓							✓	✓						
BHA SS1		2:50	2					✓											✓		
Dup 1		—	1				✓														
Dup 2		—	2												✓						

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Steph Heczko Steph Heczko	April 6/20	11:45 AM			
			John Chyppyha	Apr 6	12:00
			John Chyppyha	Apr 6	4:10

Page 2 of 2
N°: T 087044

Document ID: DIV 78 1511 015

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

Date Issued: March 16, 2018

AGAT Laboratories

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 200096

AGAT WORK ORDER: 20T592404

SOIL ANALYSIS REVIEWED BY: Yris Verastegui, Report Reviewer

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Apr 17, 2020

PAGES (INCLUDING COVER): 19

VERSION*: 1

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

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This report shall not be reproduced or distributed, in whole or in part, without the prior written consent of AGAT Laboratories.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the information contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		BH 4 SS2	BH 4 SS7
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2020-04-08	2020-04-08
Parameter	Unit	G / S	RDL	1075878	1075879
Antimony	µg/g	1.3	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	5
Barium	µg/g	220	2	74	226
Beryllium	µg/g	2.5	0.5	0.5	0.9
Boron	µg/g	36	5	<5	28
Boron (Hot Water Extractable)	µg/g	NA	0.10	0.31	1.25
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	70	5	13	22
Cobalt	µg/g	21	0.5	4.9	13.1
Copper	µg/g	92	1	11	6
Lead	µg/g	120	1	19	7
Molybdenum	µg/g	2	0.5	0.8	1.3
Nickel	µg/g	82	1	9	30
Selenium	µg/g	1.5	0.4	0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	0.5	0.7
Vanadium	µg/g	86	1	27	25
Zinc	µg/g	290	5	35	57
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	0.141	0.204
Sodium Adsorption Ratio	NA	2.4	NA	0.299	1.05
pH, 2:1 CaCl2 Extraction	pH Units		NA	6.83	7.70

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1075878-1075879 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		BH B SS1	BH B SS2	BH C SS1	BH D SS1	BH D SS2	BH E SS1	BH F SS1	BH F SS2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08
Parameter	Unit	G / S	RDL	1075880	1075881	1075882	1075883	1075884	1075885	1075886	1075887
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	4	4	7	5	7	6	4
Barium	µg/g	220	2	31	52	30	90	140	102	34	39
Beryllium	µg/g	2.5	0.5	<0.5	0.5	<0.5	0.5	1.0	<0.5	<0.5	<0.5
Boron	µg/g	36	5	<5	<5	<5	15	17	12	<5	<5
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	1.3	<0.5	1.8	<0.5	<0.5
Chromium	µg/g	70	5	11	12	10	17	22	11	10	11
Cobalt	µg/g	21	0.5	5.1	6.3	5.2	6.9	13.0	3.2	4.4	5.8
Copper	µg/g	92	1	12	17	16	11	8	15	13	19
Lead	µg/g	120	1	39	7	27	88	14	89	51	7
Molybdenum	µg/g	2	0.5	0.5	<0.5	<0.5	0.8	0.6	1.0	1.0	<0.5
Nickel	µg/g	82	1	8	12	10	15	29	8	8	11
Selenium	µg/g	1.5	0.4	0.4	<0.4	<0.4	0.4	0.6	<0.4	<0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5	<0.5	<0.5	0.5	0.7	<0.5	<0.5	<0.5
Vanadium	µg/g	86	1	23	21	21	21	30	14	19	24
Zinc	µg/g	290	5	54	31	138	353	68	607	120	30

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		BH B SS1	BH B SS2	BH C SS1	BH D SS1	BH D SS2	BH E SS1	BH F SS1	BH F SS2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08	2020-04-08
Parameter	Unit	G / S	RDL	1075880	1075881	1075882	1075883	1075884	1075885	1075886	1075887
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	0.035	0.030	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.01	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Moisture Content	%		0.1	10.1	17.0	17.0	17.8	16.5	8.1	11.0	15.8
Surrogate	Unit	Acceptable Limits									
TCMX	%	50-140		66	64	82	68	64	73	70	72
Decachlorobiphenyl	%	50-140		74	73	88	74	75	74	75	80

Certified By:

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		DUP3
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2020-04-08
Parameter	Unit	G / S	RDL	1075888
Hexachloroethane	µg/g	0.01	0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005
Hexachlorobenzene	µg/g	0.01	0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01
Moisture Content	%		0.1	16.8
Surrogate	Unit	Acceptable Limits		
TCMX	%	50-140		65
Decachlorobiphenyl	%	50-140		77

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1075880-1075888 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowich

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		BH 4 SS2	BH 4 SS7
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2020-04-08	2020-04-08
Parameter	Unit	G / S	RDL	1075878	1075879
F1 (C6 to C10)	µg/g	25	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	16.3	6.6
Surrogate	Unit	Acceptable Limits			
Terphenyl	%	60-140		71	78

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1075878-1075879 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		BH 4 SS2	BH 4 SS7
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2020-04-08	2020-04-08
Parameter	Unit	G / S	RDL	1075878	1075879
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

Certified By: NPopowkolof

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20T592404

PROJECT: 200096

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2020-04-13

DATE REPORTED: 2020-04-17

		SAMPLE DESCRIPTION:		BH 4 SS2	BH 4 SS7
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2020-04-08	2020-04-08
Parameter	Unit	G / S	RDL	1075878	1075879
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylenes (Total)	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.04	<0.04	<0.04
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140		99	99
4-Bromofluorobenzene	% Recovery	50-140		82	84

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1075878-1075879 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

AGAT Laboratories

Guideline Violation

AGAT WORK ORDER: 20T592404

PROJECT: 200096

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
1075879	BH 4 SS7	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Barium	µg/g	220	226
1075883	BH D SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Cadmium	µg/g	1.2	1.3
1075883	BH D SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Zinc	µg/g	290	353
1075885	BH E SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Cadmium	µg/g	1.2	1.8
1075885	BH E SS1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Zinc	µg/g	290	607

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: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20T592404
PROJECT: 200096
ATTENTION TO: Peter Markesic
SAMPLING SITE:141-145 Main St. E., Grimsby
SAMPLED BY:Billy Olds

Soil Analysis

RPT Date: Apr 17, 2020			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
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	1075878	1075878	<0.8	<0.8	NA	< 0.8	137%	70%	130%	97%	80%	120%	72%	70%	130%
Arsenic	1075878	1075878	4	4	NA	< 1	109%	70%	130%	107%	80%	120%	101%	70%	130%
Barium	1075878	1075878	74	73	1.4%	< 2	108%	70%	130%	99%	80%	120%	101%	70%	130%
Beryllium	1075878	1075878	0.5	0.5	NA	< 0.5	108%	70%	130%	108%	80%	120%	118%	70%	130%
Boron	1075878	1075878	<5	<5	NA	< 5	97%	70%	130%	118%	80%	120%	109%	70%	130%
Boron (Hot Water Extractable)	1075878	1075878	0.31	0.29	NA	< 0.10	107%	60%	140%	96%	70%	130%	94%	60%	140%
Cadmium	1075878	1075878	<0.5	<0.5	NA	< 0.5	106%	70%	130%	100%	80%	120%	98%	70%	130%
Chromium	1075878	1075878	13	13	NA	< 5	103%	70%	130%	95%	80%	120%	88%	70%	130%
Cobalt	1075878	1075878	4.9	4.8	2.1%	< 0.5	85%	70%	130%	97%	80%	120%	89%	70%	130%
Copper	1075878	1075878	11	11	0.0%	< 1	93%	70%	130%	102%	80%	120%	91%	70%	130%
Lead	1075878	1075878	19	18	5.4%	< 1	101%	70%	130%	95%	80%	120%	94%	70%	130%
Molybdenum	1075878	1075878	0.8	0.7	NA	< 0.5	99%	70%	130%	105%	80%	120%	99%	70%	130%
Nickel	1075878	1075878	9	9	0.0%	< 1	89%	70%	130%	102%	80%	120%	92%	70%	130%
Selenium	1075878	1075878	0.4	<0.4	NA	< 0.4	123%	70%	130%	104%	80%	120%	98%	70%	130%
Silver	1075878	1075878	<0.2	<0.2	NA	< 0.2	103%	70%	130%	102%	80%	120%	96%	70%	130%
Thallium	1075878	1075878	<0.4	<0.4	NA	< 0.4	88%	70%	130%	102%	80%	120%	95%	70%	130%
Uranium	1075878	1075878	0.5	0.5	NA	< 0.5	92%	70%	130%	104%	80%	120%	98%	70%	130%
Vanadium	1075878	1075878	27	26	3.8%	< 1	87%	70%	130%	93%	80%	120%	84%	70%	130%
Zinc	1075878	1075878	35	35	0.0%	< 5	100%	70%	130%	98%	80%	120%	91%	70%	130%
Chromium, Hexavalent	1074737		<0.2	<0.2	NA	< 0.2	88%	70%	130%	89%	80%	120%	109%	70%	130%
Cyanide, Free	1063250		<0.040	<0.040	NA	< 0.040	100%	70%	130%	100%	80%	120%	94%	70%	130%
Mercury	1075878	1075878	<0.10	<0.10	NA	< 0.10	110%	70%	130%	102%	80%	120%	99%	70%	130%
Electrical Conductivity (2:1)	1075878	1075878	0.141	0.152	7.5%	< 0.005	117%	80%	120%	NA			NA		
Sodium Adsorption Ratio	1075878	1075878	0.299	0.302	1.0%	NA	NA			NA			9%		
pH, 2:1 CaCl2 Extraction	1072837		10.4	10.5	1.0%	NA	101%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.
Matrix spike: Spike level < native concentration. Matrix spike acceptance limits do not apply.

Certified By: Iris Verástegui

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: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20T592404
PROJECT: 200096
ATTENTION TO: Peter Markesic
SAMPLING SITE:141-145 Main St. E., Grimsby
SAMPLED BY:Billy Olds

Trace Organics Analysis

RPT Date: Apr 17, 2020			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
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	1074748		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	94%	50%	140%	96%	50%	140%
Vinyl Chloride	1074748		< 0.02	< 0.02	NA	< 0.02	106%	50%	140%	95%	50%	140%	94%	50%	140%
Bromomethane	1074748		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	83%	50%	140%	104%	50%	140%
Trichlorofluoromethane	1074748		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	112%	50%	140%	93%	50%	140%
Acetone	1074748		< 0.50	< 0.50	NA	< 0.50	103%	50%	140%	109%	50%	140%	118%	50%	140%
1,1-Dichloroethylene	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	95%	60%	130%	103%	50%	140%
Methylene Chloride	1074748		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	90%	60%	130%	90%	50%	140%
Trans- 1,2-Dichloroethylene	1074748		< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	116%	60%	130%	110%	50%	140%
Methyl tert-butyl Ether	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	83%	60%	130%	103%	50%	140%
1,1-Dichloroethane	1074748		< 0.02	< 0.02	NA	< 0.02	95%	50%	140%	123%	60%	130%	90%	50%	140%
Methyl Ethyl Ketone	1074748		< 0.50	< 0.50	NA	< 0.50	110%	50%	140%	101%	50%	140%	100%	50%	140%
Cis- 1,2-Dichloroethylene	1074748		< 0.02	< 0.02	NA	< 0.02	97%	50%	140%	120%	60%	130%	90%	50%	140%
Chloroform	1074748		< 0.04	< 0.04	NA	< 0.04	103%	50%	140%	119%	60%	130%	108%	50%	140%
1,2-Dichloroethane	1074748		< 0.03	< 0.03	NA	< 0.03	103%	50%	140%	115%	60%	130%	110%	50%	140%
1,1,1-Trichloroethane	1074748		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	84%	60%	130%	84%	50%	140%
Carbon Tetrachloride	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	102%	60%	130%	107%	50%	140%
Benzene	1074748		< 0.02	< 0.02	NA	< 0.02	99%	50%	140%	112%	60%	130%	111%	50%	140%
1,2-Dichloropropane	1074748		< 0.03	< 0.03	NA	< 0.03	109%	50%	140%	93%	60%	130%	80%	50%	140%
Trichloroethylene	1074748		< 0.03	< 0.03	NA	< 0.03	90%	50%	140%	108%	60%	130%	111%	50%	140%
Bromodichloromethane	1074748		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	82%	60%	130%	81%	50%	140%
Methyl Isobutyl Ketone	1074748		< 0.50	< 0.50	NA	< 0.50	104%	50%	140%	101%	50%	140%	92%	50%	140%
1,1,2-Trichloroethane	1074748		< 0.04	< 0.04	NA	< 0.04	86%	50%	140%	86%	60%	130%	102%	50%	140%
Toluene	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	81%	60%	130%	86%	50%	140%
Dibromochloromethane	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	110%	60%	130%	82%	50%	140%
Ethylene Dibromide	1074748		< 0.04	< 0.04	NA	< 0.04	108%	50%	140%	80%	60%	130%	96%	50%	140%
Tetrachloroethylene	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	80%	60%	130%	93%	50%	140%
1,1,1,2-Tetrachloroethane	1074748		< 0.04	< 0.04	NA	< 0.04	111%	50%	140%	108%	60%	130%	88%	50%	140%
Chlorobenzene	1074748		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	82%	60%	130%	92%	50%	140%
Ethylbenzene	1074748		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	98%	60%	130%	80%	50%	140%
m & p-Xylene	1074748		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	105%	60%	130%	105%	50%	140%
Bromoform	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	108%	60%	130%	90%	50%	140%
Styrene	1074748		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	90%	60%	130%	108%	50%	140%
1,1,2,2-Tetrachloroethane	1074748		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	108%	60%	130%	95%	50%	140%
o-Xylene	1074748		< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	102%	60%	130%	92%	50%	140%
1,3-Dichlorobenzene	1074748		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	98%	60%	130%	87%	50%	140%
1,4-Dichlorobenzene	1074748		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	109%	60%	130%	85%	50%	140%
1,2-Dichlorobenzene	1074748		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	91%	60%	130%	79%	50%	140%
1,3-Dichloropropene (Cis + Trans)	1074748		< 0.04	< 0.04	NA	< 0.04	88%	50%	140%	106%	60%	130%	104%	50%	140%
n-Hexane	1074748		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	111%	60%	130%	102%	50%	140%

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T592404

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

Trace Organics Analysis (Continued)

RPT Date: Apr 17, 2020			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
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	1072868		< 5	< 5	NA	< 5	99%	60%	140%	107%	60%	140%	109%	60%	140%
F2 (C10 to C16)	1072433		< 10	< 10	NA	< 10	97%	60%	140%	97%	60%	140%	106%	60%	140%
F3 (C16 to C34)	1072433		< 50	< 50	NA	< 50	96%	60%	140%	105%	60%	140%	102%	60%	140%
F4 (C34 to C50)	1072433		< 50	< 50	NA	< 50	95%	60%	140%	112%	60%	140%	95%	60%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	1075885	1075885	< 0.01	< 0.01	NA	< 0.01	93%	50%	140%	104%	50%	140%	98%	50%	140%
Gamma-Hexachlorocyclohexane	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	92%	50%	140%	98%	50%	140%	91%	50%	140%
Heptachlor	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	104%	50%	140%	105%	50%	140%	101%	50%	140%
Aldrin	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	108%	50%	140%	104%	50%	140%
Heptachlor Epoxide	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	98%	50%	140%	101%	50%	140%	98%	50%	140%
Endosulfan	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	105%	50%	140%	104%	50%	140%
Chlordane	1075885	1075885	< 0.007	< 0.007	NA	< 0.007	99%	50%	140%	104%	50%	140%	102%	50%	140%
DDE	1075885	1075885	0.035	0.025	NA	< 0.007	98%	50%	140%	107%	50%	140%	103%	50%	140%
DDD	1075885	1075885	< 0.007	< 0.007	NA	< 0.007	107%	50%	140%	102%	50%	140%	103%	50%	140%
DDT	1075885	1075885	< 0.007	< 0.007	NA	< 0.007	104%	50%	140%	98%	50%	140%	97%	50%	140%
Dieldrin	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	99%	50%	140%	108%	50%	140%	105%	50%	140%
Endrin	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	109%	50%	140%	100%	50%	140%	102%	50%	140%
Methoxychlor	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	106%	50%	140%	96%	50%	140%	96%	50%	140%
Hexachlorobenzene	1075885	1075885	< 0.005	< 0.005	NA	< 0.005	92%	50%	140%	104%	50%	140%	90%	50%	140%
Hexachlorobutadiene	1075885	1075885	< 0.01	< 0.01	NA	< 0.01	92%	50%	140%	103%	50%	140%	98%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

AGAT Laboratories

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

QA Violation

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T592404

PROJECT: 200096

ATTENTION TO: Peter Markesic

RPT Date: Apr 17, 2020

PARAMETER	Sample Id	Sample Description	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
				Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)											
Antimony	1075878	BH 4 SS2	137%	70%	130%	97%	80%	120%	72%	70%	130%

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.
Matrix spike: Spike level < native concentration. Matrix spike acceptance limits do not apply.

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T592404

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Extractable)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, Free	INOR-93-6052	modified from ON MOECC E3015 and SM 4500-CN- I	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6036	modified from MSA PART 3, CH 14 and SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T592404

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method, SW846 5035	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method, SW846 5035	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T592404

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Acetone	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T592404

PROJECT: 200096

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-145 Main St. E., Grimsby

SAMPLED BY:Billy Olds

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS

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 #: 20T592404

Cooler Quantity:

Arrival Temperatures: 6.5 | 6.6 | 6.5
6.0 | 6.2 | 6.3

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ice

Report Information:

Company: SOIL MAT
Contact: Peter Markesic
Address: 130 Lancing Dr, Hamilton ON

Phone: 905-318-7440 Fax:

Reports to be sent to:
1. Email: pmarkesic@soilmat.ca
2. Email: bolds@soilmat.ca

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☑ Regulation 153/04
Table (C) *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: 200096
Site Location: 141-149 MAIN St E. Grimsby
Sampled By: Billy Bolds
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	Hydride Metals	153 Metals (Incl. Hydrides)	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
BH 4 SS2	Apr 8	PM	3	Soil			✓																					✓			✓					✓							
BH 4 SS7			3				✓																					✓			✓					✓							
BH B SS1			2					✓																												✓							
BH B SS2			2					✓																												✓							
BH C SS1			2					✓																												✓							
BH D SS1			2					✓																												✓							
BH D SS2			2					✓																												✓							
BH E SS1			2					✓																												✓							
BH F SS1			2					✓																												✓							
BH F SS2	↓	↓	2	↓				✓																												✓							

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): John Chyayha	Date Apr 13	Time 11:35
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign): John Chyayha	Date Apr 13	Time 4:05

Page 1 of 1

Nº: T 087038

Document ID: DIV 78 1511 015

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

Appendix 'C'

1. AGAT Certificate of Analysis – Water

AGAT Laboratories

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 200154

AGAT WORK ORDER: 20H599349

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Lab Manager

DATE REPORTED: May 14, 2020

PAGES (INCLUDING COVER): 14

VERSION*: 1

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

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20H599349

PROJECT: 200154

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Water)

DATE RECEIVED: 2020-05-07

DATE REPORTED: 2020-05-14

		SAMPLE DESCRIPTION:		MW1-S1	MW2-S2	MW3-S3	MW4-S4	DUP1
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2020-05-07	2020-05-07	2020-05-07	2020-05-07	2020-05-07
Parameter	Unit	G / S	RDL	1112973	1112974	1112975	1112976	1112977
F1 (C6 - C10)	µg/L	420	25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA	NA	NA
Surrogate	Unit	Acceptable Limits						
Terphenyl	%	60-140		99	116	105	84	80

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses
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.

1112973-1112977 The C6-C10 fraction is calculated using Toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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

Certificate of Analysis

AGAT WORK ORDER: 20H599349
PROJECT: 200154

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
SAMPLING SITE:141-149 Main St. E, Grimsby

ATTENTION TO: Peter Markesic
SAMPLED BY:Lianne

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2020-05-07 DATE REPORTED: 2020-05-14

		SAMPLE DESCRIPTION:		MW1-S1	MW2-S2	MW3-S3	MW4-S4	DUP1
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2020-05-07	2020-05-07	2020-05-07	2020-05-07	2020-05-07
Parameter	Unit	G / S	RDL	1112973	1112974	1112975	1112976	1112977
Dichlorodifluoromethane	µg/L	590	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	8.1	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	400	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	0.8	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20

Certified By: NPopowich

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20H599349
PROJECT: 200154

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2020-05-07

DATE REPORTED: 2020-05-14

		SAMPLE DESCRIPTION:		MW1-S1	MW2-S2	MW3-S3	MW4-S4	DUP1
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2020-05-07	2020-05-07	2020-05-07	2020-05-07	2020-05-07
Parameter	Unit	G / S	RDL	1112973	1112974	1112975	1112976	1112977
Bromoform	µg/L	5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	72	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits						
Toluene-d8	% Recovery	50-140		102	107	106	106	103
4-Bromofluorobenzene	% Recovery	50-140		97	98	101	92	93

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses
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.

1112973-1112977 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowich

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20H599349
PROJECT: 200154

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
SAMPLING SITE:141-149 Main St. E, Grimsby

ATTENTION TO: Peter Markesic
SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2020-05-07

DATE REPORTED: 2020-05-14

		SAMPLE DESCRIPTION:		MW1-S1	MW2-S2	MW3-S3		MW4-S4	DUP1
		SAMPLE TYPE:		Water	Water	Water		Water	Water
		DATE SAMPLED:		2020-05-07	2020-05-07	2020-05-07		2020-05-07	2020-05-07
Parameter	Unit	G / S	RDL	1112973	1112974	1112975	RDL	1112976	1112977
Dissolved Antimony	µg/L	1.5	1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	13	1.0	2.6	4.3	6.5	1.0	1.4	<1.0
Dissolved Barium	µg/L	610	2.0	38.5	26.4	44.1	2.0	36.1	33.3
Dissolved Beryllium	µg/L	0.5	0.50	<0.50	<0.50	<0.50	0.50	<0.50	<0.50
Dissolved Boron	µg/L	1700	10.0	717	2040	276	10.0	177	252
Dissolved Cadmium	µg/L	0.5	0.20	<0.20	<0.20	0.24	0.20	<0.20	<0.20
Dissolved Chromium	µg/L	11	2.0	5.2	<2.0	3.6	2.0	3.4	4.5
Dissolved Cobalt	µg/L	3.8	0.50	0.79	0.96	0.68	0.50	<0.50	<0.50
Dissolved Copper	µg/L	5	1.0	2.4	2.9	3.1	1.0	1.3	1.2
Dissolved Lead	µg/L	1.9	0.50	<0.50	0.57	<0.50	0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	23	0.50	67.7	130	231	0.50	3.01	4.04
Dissolved Nickel	µg/L	14	3.0	<3.0	<3.0	<3.0	3.0	<3.0	<3.0
Dissolved Selenium	µg/L	5	1.0	3.5	4.8	1.9	1.0	2.7	3.4
Dissolved Silver	µg/L	0.3	0.20	<0.20	<0.20	<0.20	0.20	<0.20	<0.20
Dissolved Thallium	µg/L	0.5	0.30	<0.30	<0.30	<0.30	0.30	<0.30	<0.30
Dissolved Uranium	µg/L	8.9	0.50	11.9	13.9	<0.50	0.50	2.91	6.61
Dissolved Vanadium	µg/L	3.9	0.40	1.20	1.21	16.6	0.40	1.59	1.93
Dissolved Zinc	µg/L	160	5.0	<5.0	<5.0	<5.0	5.0	<5.0	<5.0
Mercury	µg/L	0.1	0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
Chromium VI	µg/L	25	5	<5	<5	<5	5	<5	<5
Cyanide, Free	µg/L	5	2	<2	<2	<2	2	<2	<2
Dissolved Sodium	µg/L	490000	250	123000	210000	125000	250	150000	145000
Chloride	µg/L	790000	2000	265000	463000	324000	1000	302000	306000
Electrical Conductivity	uS/cm	NA	2	2630	4650	2490	2	2010	2040
pH	pH Units		NA	7.33	7.40	7.66	NA	7.44	7.48

Certified By:

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 20H599349

PROJECT: 200154

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2020-05-07

DATE REPORTED: 2020-05-14

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses
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.

1112973-1112977 Metals analysis completed on a filtered sample.
Elevated RDLs indicate the degree of sample dilutions prior to the analysis to keep analytes within the calibration range or reduce matrix interference.
Metals values were confirmed by re-analysis.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

AGAT Laboratories

Guideline Violation

AGAT WORK ORDER: 20H599349

PROJECT: 200154

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
1112973	MW1-S1	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Molybdenum	µg/L	23	67.7
1112973	MW1-S1	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Uranium	µg/L	8.9	11.9
1112974	MW2-S2	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Boron	µg/L	1700	2040
1112974	MW2-S2	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Molybdenum	µg/L	23	130
1112974	MW2-S2	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Uranium	µg/L	8.9	13.9
1112975	MW3-S3	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Molybdenum	µg/L	23	231
1112975	MW3-S3	ON T1 GW	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Vanadium	µg/L	3.9	16.6

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: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20H599349
PROJECT: 200154
ATTENTION TO: Peter Markesic
SAMPLING SITE:141-149 Main St. E, Grimsby
SAMPLED BY:Lianne

Trace Organics Analysis

RPT Date: May 14, 2020			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
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	1115175		< 0.20	< 0.20	NA	< 0.20	95%	50%	140%	113%	50%	140%	104%	50%	140%
Vinyl Chloride	1115175		< 0.17	< 0.17	NA	< 0.17	100%	50%	140%	95%	50%	140%	114%	50%	140%
Bromomethane	1115175		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	112%	50%	140%	93%	50%	140%
Trichlorofluoromethane	1115175		< 0.40	< 0.40	NA	< 0.40	104%	50%	140%	116%	50%	140%	106%	50%	140%
Acetone	1115175		< 1.0	< 1.0	NA	< 1.0	112%	50%	140%	104%	50%	140%	102%	50%	140%
1,1-Dichloroethylene	1115175		< 0.30	< 0.30	NA	< 0.30	82%	50%	140%	86%	60%	130%	83%	50%	140%
Methylene Chloride	1115175		< 0.30	< 0.30	NA	< 0.30	91%	50%	140%	92%	60%	130%	97%	50%	140%
trans- 1,2-Dichloroethylene	1115175		< 0.20	< 0.20	NA	< 0.20	112%	50%	140%	108%	60%	130%	85%	50%	140%
Methyl tert-butyl ether	1115175		< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	90%	60%	130%	110%	50%	140%
1,1-Dichloroethane	1115175		< 0.30	< 0.30	NA	< 0.30	110%	50%	140%	98%	60%	130%	103%	50%	140%
Methyl Ethyl Ketone	1115175		< 1.0	< 1.0	NA	< 1.0	112%	50%	140%	83%	50%	140%	93%	50%	140%
cis- 1,2-Dichloroethylene	1115175		< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	84%	60%	130%	86%	50%	140%
Chloroform	1115175		< 0.20	< 0.20	NA	< 0.20	110%	50%	140%	112%	60%	130%	93%	50%	140%
1,2-Dichloroethane	1115175		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	111%	60%	130%	92%	50%	140%
1,1,1-Trichloroethane	1115175		< 0.30	< 0.30	NA	< 0.30	112%	50%	140%	114%	60%	130%	108%	50%	140%
Carbon Tetrachloride	1115175		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	102%	60%	130%	82%	50%	140%
Benzene	1115175		< 0.20	< 0.20	NA	< 0.20	109%	50%	140%	110%	60%	130%	83%	50%	140%
1,2-Dichloropropane	1115175		< 0.20	< 0.20	NA	< 0.20	95%	50%	140%	93%	60%	130%	82%	50%	140%
Trichloroethylene	1115175		< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	83%	60%	140%	80%	50%	140%
Bromodichloromethane	1115175		< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	83%	60%	130%	85%	50%	140%
Methyl Isobutyl Ketone	1115175		< 1.0	< 1.0	NA	< 1.0	81%	50%	140%	90%	50%	140%	110%	50%	140%
1,1,2-Trichloroethane	1115175		< 0.20	< 0.20	NA	< 0.20	111%	50%	140%	103%	60%	130%	115%	50%	140%
Toluene	1115175		< 0.20	< 0.20	NA	< 0.20	110%	50%	140%	109%	60%	130%	99%	50%	140%
Dibromochloromethane	1115175		< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	90%	60%	130%	90%	50%	140%
Ethylene Dibromide	1115175		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	95%	60%	130%	105%	50%	140%
Tetrachloroethylene	1115175		< 0.20	< 0.20	NA	< 0.20	111%	50%	140%	110%	60%	130%	100%	50%	140%
1,1,1,2-Tetrachloroethane	1115175		< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	101%	60%	130%	97%	50%	140%
Chlorobenzene	1115175		< 0.10	< 0.10	NA	< 0.10	107%	50%	140%	105%	60%	130%	102%	50%	140%
Ethylbenzene	1115175		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	104%	60%	130%	96%	50%	140%
m & p-Xylene	1115175		< 0.20	< 0.20	NA	< 0.20	117%	50%	140%	110%	60%	130%	100%	50%	140%
Bromoform	1115175		< 0.10	< 0.10	NA	< 0.10	109%	50%	140%	86%	60%	130%	88%	50%	140%
Styrene	1115175		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	92%	60%	130%	92%	50%	140%
1,1,2,2-Tetrachloroethane	1115175		< 0.10	< 0.10	NA	< 0.10	108%	50%	140%	98%	60%	130%	110%	50%	140%
o-Xylene	1115175		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	108%	60%	130%	103%	50%	140%
1,3-Dichlorobenzene	1115175		< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	97%	60%	130%	103%	50%	140%
1,4-Dichlorobenzene	1115175		< 0.10	< 0.10	NA	< 0.10	100%	50%	140%	101%	60%	130%	109%	50%	140%
1,2-Dichlorobenzene	1115175		< 0.10	< 0.10	NA	< 0.10	97%	50%	140%	91%	60%	130%	107%	50%	140%
1,3-Dichloropropene	1115175		< 0.30	< 0.30	NA	< 0.30	105%	50%	140%	96%	60%	130%	99%	50%	140%
n-Hexane	1115175		< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	112%	60%	130%	103%	50%	140%

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: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20H599349
PROJECT: 200154
ATTENTION TO: Peter Markesic
SAMPLING SITE:141-149 Main St. E, Grimsby
SAMPLED BY:Lianne

Trace Organics Analysis (Continued)

RPT Date: May 14, 2020			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
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Water)															
F1 (C6 - C10)	1100111		< 25	< 25	NA	< 25	89%	60%	140%	102%	60%	140%	100%	60%	140%
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	115%	60%	140%	102%	60%	140%	84%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	109%	60%	140%	73%	60%	140%	111%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	103%	60%	140%	104%	60%	140%	89%	60%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.
When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H599349

PROJECT: 200154

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

Water Analysis

RPT Date: May 14, 2020			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
O. Reg. 153(511) - Metals & Inorganics (Water)															
Dissolved Antimony	1112973	1112973	<1.0	<1.0	NA	< 1.0	104%	70%	130%	102%	80%	120%	99%	70%	130%
Dissolved Arsenic	1112973	1112973	2.6	2.0	NA	< 1.0	103%	70%	130%	104%	80%	120%	106%	70%	130%
Dissolved Barium	1112973	1112973	38.5	38.5	0.0%	< 2.0	101%	70%	130%	102%	80%	120%	98%	70%	130%
Dissolved Beryllium	1112973	1112973	<0.50	<0.50	NA	< 0.50	90%	70%	130%	91%	80%	120%	80%	70%	130%
Dissolved Boron	1112973	1112973	717	735	2.5%	< 10.0	104%	70%	130%	106%	80%	120%	107%	70%	130%
Dissolved Cadmium	1112973	1112973	<0.20	<0.20	NA	< 0.20	101%	70%	130%	105%	80%	120%	111%	70%	130%
Dissolved Chromium	1112973	1112973	5.2	5.3	NA	< 2.0	100%	70%	130%	102%	80%	120%	100%	70%	130%
Dissolved Cobalt	1112973	1112973	0.79	0.78	NA	< 0.50	103%	70%	130%	104%	80%	120%	97%	70%	130%
Dissolved Copper	1112973	1112973	2.4	2.5	NA	< 1.0	107%	70%	130%	111%	80%	120%	92%	70%	130%
Dissolved Lead	1112973	1112973	<0.50	<0.50	NA	< 0.50	98%	70%	130%	102%	80%	120%	94%	70%	130%
Dissolved Molybdenum	1112973	1112973	67.7	68.1	0.6%	< 0.50	101%	70%	130%	102%	80%	120%	102%	70%	130%
Dissolved Nickel	1112973	1112973	<3.0	<3.0	NA	< 3.0	103%	70%	130%	105%	80%	120%	92%	70%	130%
Dissolved Selenium	1112973	1112973	3.5	2.9	NA	< 1.0	105%	70%	130%	107%	80%	120%	112%	70%	130%
Dissolved Silver	1112973	1112973	<0.20	<0.20	NA	< 0.20	104%	70%	130%	115%	80%	120%	78%	70%	130%
Dissolved Thallium	1112973	1112973	<0.30	<0.30	NA	< 0.30	101%	70%	130%	102%	80%	120%	96%	70%	130%
Dissolved Uranium	1112973	1112973	11.9	11.7	1.7%	< 0.50	97%	70%	130%	99%	80%	120%	99%	70%	130%
Dissolved Vanadium	1112973	1112973	1.20	1.21	NA	< 0.40	98%	70%	130%	101%	80%	120%	102%	70%	130%
Dissolved Zinc	1112973	1112973	<5.0	<5.0	NA	< 5.0	105%	70%	130%	108%	80%	120%	110%	70%	130%
Mercury	1112973	1112973	<0.02	<0.02	NA	< 0.02	103%	70%	130%	102%	80%	120%	106%	70%	130%
Chromium VI	1112973	1112973	<5	<5	NA	< 5	100%	70%	130%	101%	80%	120%	109%	70%	130%
Cyanide, Free	1112973	1112973	<2	<2	NA	< 2	98%	70%	130%	93%	80%	120%	101%	70%	130%
Dissolved Sodium	1109277		118000	117000	0.9%	< 50	NA	70%	130%	100%	80%	120%	97%	70%	130%
Chloride	1110845		36200	36500	0.8%	< 100	93%	70%	130%	101%	80%	120%	102%	70%	130%
Electrical Conductivity	1112973	1112973	2630	2640	0.4%	< 2	103%	90%	110%	NA			NA		
pH	1112973	1112973	7.33	7.48	2.0%		100%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Certified By:

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H599349

PROJECT: 200154

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
F1 (C6 - C10)	VOL-91- 5010	modified from MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC E3421	GC / FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC E3421	GC / FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC E3421	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC E3421	GC/FID
Dichlorodifluoromethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H599349

PROJECT: 200154

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Dibromochloromethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H599349

PROJECT: 200154

ATTENTION TO: Peter Markesic

SAMPLING SITE:141-149 Main St. E, Grimsby

SAMPLED BY:Lianne

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6034	modified from SM 3500-CR B	SPECTROPHOTOMETER
Cyanide, Free	INOR-93-6052	modified from ON MOECC E3015 and SM 4500-CN- I	TECHNICON AUTO ANALYZER
Dissolved Sodium	MET-93-6105	modified from EPA 6010D	ICP/OES
Chloride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE

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 #: 20H599349

Cooler Quantity: 1 large

Arrival Temperatures: 9.1 | 9.4 | 9.6 — 8.1 | 8.6 | 8

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: On 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: SOIL MAT

Contact:

Address: 130 Lancing Dr. Hamilton

Phone: Fax:

Reports to be sent to:

1. Email: Peter
2. Email: Lianne

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

☒ Regulation 153/04 — Table 1 (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: 200154

Site Location: 141-149 Main St. E, Grimsby

Sampled By: Lianne

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

Analysis columns: Field Filtered - Metals, Hg, CrVI (Y/N); Metals and Inorganics; O. Reg 153: ☐ 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 ☐NH3 ☐TKN ☐NO3 ☐NO2 ☐NO3+NO2; 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; Potentially Hazardous or High Concentration (Y/N)

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered (Y/N)	Metals and Inorganics	O. Reg 153 Metals	ORPs	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNs	PAHs	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
MW1-S1	20.05.07	am	12	GW			X						X	X							
MW2-S2							X						X	X							
MW3-S3							X						X	X							
MW4-S4							X						X	X							
DUP1																					

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Lianne Crawford	20.05.07	1:20	Chris Tabone	May 7/20	1:20pm
Chris Tabone	May 7/20	3:00pm	John Chypyha	May 7	3:45
			John Chypyha	May 7	4:15

Page 1 of 1

Nº: T 099110

Appendix 'D'

1. Qualifications of Assessors

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 130 Lancing Drive in Hamilton, Ontario.

REPORT AUTHORS

Peter Markesic, B.Sc.
Project Manager

Mr. Markesic has over ten years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Mr. Markesic has also been a key project member on a number of Phase III Environmental Site Assessment projects, including the decommissioning of underground fuel storage tanks and both in-situ and ex-situ remediation projects.

Stephen R. Sears, B. Eng. Mgmt., P. Eng.
[Director/ Senior Professional]

Mr. Sears has over twenty-two years of experience in the geotechnical and geo-environmental fields. Mr. Sears holds current Consulting Engineer designations with the Professional Engineers Ontario and the Association of Professional Engineers and Geoscientists of Saskatchewan and has supervised the geotechnical investigations for numerous industrial, commercial and residential development projects in Southern Ontario, slope stability assignments associated with Hamilton Conservation Authority, Conservation Halton and Niagara Peninsula Conservation Authority requirements, and several high rise developments throughout Ontario. Mr. Sears has also been involved in geotechnical and hydrogeological investigations for industrial park developments in the Greater Toronto Area and Niagara Peninsula. Some of Mr. Sears' projects have included the decommissioning and reconstruction of underground and above ground fuel oil storage tanks in Ontario and Saskatchewan, the study of the containment structures at a number of Petroleum Storage Facilities in Ontario and and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

Appendix ‘E’

1. Statement of Limitations

REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of the LOSANI HOMES. The material in it reflects SOIL-MAT ENGINEERS best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. SOIL-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.