PROJECT NO.: SM 230581-E

SEPTEMBER 3, 2024

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
127 PLAINS ROAD WEST
BURLINGTON, ONTARIO

PREPARED FOR:

LOSANI HOMES

Soil-Mat

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
401 GRAYS ROAD
HAMILTON, ONTARIO
L8E 2Z3

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PROJECT NO.: SM 230581-E September 3, 2024

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

Attention: Daniel Borrelli
Planner and Project Coordinator

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
127 PLAINS ROAD WEST
BURLINGTON, ONTARIO

Dear Mr. Borrelli,

1.0 EXECUTIVE SUMMARY

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by LOSANI HOMES to undertake Phase Two Environmental Site Assessment [ESA] activities on the above captioned property. Of note, our Phase Two activities were conducted in accordance with Ontario Regulation 153/04 [as amended] to support the eventual filing of a Record of Site Condition [RSC] for the subject property.

Our Phase Two activities included the advancement of boreholes and the installation of groundwater monitoring wells, on the Phase Two Property, to assess the impact, if any, to the soil and groundwater medium as a result of on-site and nearby off-site potentially contaminating activities [PCAs].

Of note, our Phase Two activities were completed in conjunction with a geotechnical investigation and hydrogeological study of the subject lands by this Office. As such, only six [6] of the eight [8] monitoring wells advanced on the Site were advanced for the purpose of our Phase Two activities.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS is pleased to offer the following:

- The Phase Two activities carried out by SOIL-MAT ENGINEERS revealed the following exceedances for select metal parameters in the soil medium:
    - Elevated levels of Electrical Conductivity [EC] and Sodium Adsorption Ratio [SAR] were found to exceed the Table 3 Residential/Parkland/Institutional [RPI] Site Condition Standards [SCSs] across the majority of the Site. However, Section 49.1 of Regulation 153/04 [as amended], provides the following exemption: "If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act:
        1. The qualified person has determined, based on a phase one environmental site assessment or a phase two environmental site

assessment, that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both."

Given the historical use of de-icing salts on the Site as a commercial parking lot and use on the adjacent municipal roadways, it is the opinion of the Soil-Mat Engineers that the elevated levels of the noted parameters are a direct result of a substance applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. As such, EC and SAR are not considered contaminants on the Site. In addition, the soil samples with reported elevated levels of EC and/or SAR above the Table 3 RPI SCSs are not considered to exceed the Standards.

- The laboratory analytical test results for the remaining soil samples are all below the applicable Ontario Regulation 153/04 [as amended] Table 3 RPI SCSs for the select tested Contaminants of Potential Concern [COPC] groupings;

- The Phase Two activities carried out by SOIL-MAT ENGINEERS revealed the following exceedances for select volatile organic compound [VOC] parameters in the groundwater medium:
    - The groundwater sample secured from monitoring well 'MW3' reportedly exceeds for a select VOC parameter [specifically Chloroform], and;
    - The groundwater sample secured from monitoring well 'MW5B' reportedly exceeds for select VOC parameters [specifically Chloroform and Vinyl Chloride].

- The laboratory analytical test results for the remaining groundwater samples are all below the applicable Table 3 RPI SCSs for the select tested COPC groupings.

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.

NEXT STEPS

As all of the secured soil samples, in the specific areas of potential environmental concern on the Site, reportedly meet the applicable Table 3 RPI SCSs no further intrusive soil sample is required at this time.

As the groundwater samples secured from monitoring wells 'MW3' and 'MW5B' reportedly exceed the applicable Table 3 RPI SCSs for select VOC parameters additional intrusive groundwater sampling is recommended to further delineate the lateral and vertical extent of these specific contaminants of concern [COCs] and/or demonstrate that the noted exceedances are anomalous in nature and not representative of the actual groundwater conditions at this location. It is noted that 'nested' groundwater monitoring wells will be required to assess the vertical extent of the specific COCs in the groundwater medium.

Further to the above, it is noted that given the laboratory analytical data currently available to this office an RSC is not able to be submitted at this time. Furthermore, pending the results of recommended supplemental assessment activities, some form of groundwater

remediation or potentially a combination of remediation and Risk Assessment [RA] activities may be required to support an RSC filing.

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 on the above captioned property. It is noted that the Phase Two activities were conducted in accordance with Ontario Regulation 153/04 [as amended] to support the filing of an RSC; pending favourable laboratory analytical test results.

A Phase One Environmental Site Assessment was previously prepared by SOIL-MAT ENGINEERS, and was utilised in determining the rationale for these Phase Two ESA activities [refer to SOIL-MAT ENGINEERS' Report No.: SM 230581-E dated May 2, 2024].

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 Phase Two Property and/or the *Site*.

2.0 (i) SITE DESCRIPTION

At the time of this Report, the Phase Two Property was comprised of an irregular shaped parcel of land located on the northwest corner of Plains Road West and Howard Road in the City of Burlington, Ontario. Specifically, the Phase Two Property was occupied by a two-storey building, with no basement level, which was located on the northwestern portion of the Phase Two Property. The remainder of the Phase Two Property was comprised primarily of an asphaltic-concrete covered parking lot with some landscaped areas.

The Site was bounded to the north by industrial lands, to the south by Plains Road West, to the east by Howard Road, and to the west by commercial lands.

For descriptive purposes, Plains Road West has been designated as having an east-west alignment.

The Phase Two Property is comprised of the following parcel of land:

1. 127 Plains Road West, Burlington, Ontario. The property identification number [PIN] is '07124-0144'. The registered owner of the Site is '1520866 Ontario Limited'.

The geographic coordinates of the Site, recorded using a hand held global positioning unit, are [NAD 83] 17T 592667E/ 4795170N.

The area of the Site is 0.262 hectares.

2.0 (ii) PROPERTY OWNERSHIP

At the time of this report, the Site was owned by 1520866 ONTARIO LIMITED. However, as noted in the preamble of this Report, SOIL-MAT ENGINEERS were retained by LOSANI

HOMES to undertake the Phase Two ESA activities on the Site in support of the redevelopment of the Site.

The contact information for the client is provided below:

1. Contact Name: Mr. Daniel Borrelli
2. Mailing Address: 430 McNeilly Road, Suite 203, Stoney Creek, Ontario L8E 5E3
3. Contact e-mail: dborelli@losanihomes.com
4. Contact Phone: 905 594 0513

2.0 (iii) CURRENT AND PROPOSED FUTURE USE

Current Use: Commercial Use
Proposed Use: Residential Use

Based on the current use and the proposed use of the Site, the proposed development is subject to a mandatory filing of an RSC in support of a residential redevelopment.

2.0 (iv) APPLICABLE SITE CONDITION STANDARDS

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

- Current land use: Commercial Use;
- Intended land use: Residential Use;
- Drinking Water Supply: Potable Ground Water;
- On-site Soil Texture: Coarse Grained Soils;
- Depth to Bedrock: Greater than 30.0 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 3 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 3 RPI SCSs’.

3.0 BACKGROUND INFORMATION

3.0 (i) PHYSICAL SETTING

The Site is located in an area of mixed residential, commercial and industrial use lands.

There are no water bodies in whole or in part on the Phase Two Property. In addition, surface water bodies were not 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 Site is relatively flat and level with surface water being directed primarily towards existing catch basins in the parking lot area on the Site.

Regional groundwater flow is expected to the southeast towards Lake Ontario.

3.0 (ii) PAST INVESTIGATIONS

SOIL-MAT ENGINEERS had access to the following environmental report, which was utilized as a supporting document during the completion of this Report.

1. Phase One Environmental Site Assessment, 127 Plains Road West, Burlington, Ontario, dated May 2, 2024: prepared by SOIL-MAT ENGINEERS for Losani Homes [Mr. Borrelli].

The May 2, 2024 Phase One research revealed three [3] PCAs on the Phase One Property, including the following:

- Information contained in the Vernon City Directory Series, title search of the Phase One Property, and available aerial photographs revealed a retail fuel outlet [RFO] formerly operated on the Phase One Property;
- Information contained in available aerial photographs revealed a building was demolished on the northeastern portion of the Phase One Property, and;
- Our reconnaissance of the Phase One Property revealed an electrical transformer box, mounted on a concrete pad, on the northeastern portion of the Phase One Property.

The neighboring and nearby lands are comprised of a mixture of residential, commercial, forested lands and industrial use properties. The current and historical operations on the adjoining and nearby properties revealed nine [9] PCAs on lands in the Phase One Study Area that are considered likely to cause an area of potential environmental concern [APEC] on the Phase One Property, including the following:

- Information contained in a 1971 Fire Insurance Plan and the Vernon City Directory series revealed an automotive repair facility formerly operated at 1032 Howard Road, which is located immediately north [up-gradient] of the Phase One Property, and at 107 Plains Road West, which is located approximately 20 metres northeast [trans-gradient] of the Phase One Property;

- Information contained in the Vernon City Directory Series, as well as our reconnaissance of the Phase One Study Area, revealed a trucking facility operates at 1032 Howard Road, which is located immediately north [up-gradient] of the Phase One Property. In addition, a trucking facility formerly operated at 1035 Howard Road, which is located approximately 55 metres north-northwest [up-gradient / trans-gradient] of the Phase One Property, and at 1060 Howard Road, which is located approximately 135 metres northwest [up-gradient] of the Phase One Property;
- Information contained in a 1971 Fire Insurance Plan and in Technical Standards and Safety Authority [T.S.S.A.] search revealed two [2] underground storage tanks [USTs], seven [7] aboveground storage tanks [ASTs], liquid fuel tanks and a private RFO associated with properties located between immediately adjacent and up to 95 metres north [up-gradient], north-northwest [up-gradient / trans-gradient] and northeast [trans-gradient] of the Phase One Property;
- Information contained in a 1971 Fire Insurance Plan revealed a truck repair facility formerly operated at 1093 Howard Road, which is located approximately 95 metres north-northwest [up-gradient / trans-gradient] of the Phase One Property;
- A ready-mix concrete manufacturing plant was observed at 1093 Howard Road, which is located approximately 95 metres north-northwest [up-gradient / trans-gradient] of the Phase One Property;
- Information contained in the Vernon City Directory Series revealed a metal fabrication facility formerly operated at 1032 Howard Road, which is located immediately north [up-gradient] of the Phase One Property;
- Information contained in an EcoLog ERIS database search report revealed record of the Scott's Manufacturing Directory for wood kitchen cabinet manufacturing at 1032 Howard Road, which is located immediately north [up-gradient] of the Phase One Property;
- Information contained in the Vernon City Directory Series revealed a dry-cleaning facility formerly operated at 141 Plains Road West, which is located immediately west [trans-gradient] of the Phase One Property, and;
- Information contained in a 1971 Fire Insurance Plan revealed a painting room at an automotive repair facility which formerly operated at 107 Plains Road West, which is located approximately 20 metres northeast [trans-gradient] of the Phase One Property.

The specific PCAs numbers, associated with the active and historical PCAs, include 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	The parking lot of the Phase One Property.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA A]	On-Site	Metals, PHCs, BTEX, and PAHs.	Soil and Groundwater
APEC #2	The vicinity of the former building on the northeastern portion of the	30. Importation of Fill Material of Unknown Quality [PCA B]	On-Site	Metals, PHCs, and BTEX.	Soil

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)
	Phase One Property.				
APEC #3	The vicinity of the transformer box on the eastern portion of the Phase One Property.	55. Transformer Manufacturing, Processing and Use [PCA C]	On-Site	PCBs and PHCs	Soil
APEC #4	The northern and eastern limits of the Phase One Property.	10. Commercial Autobody Shops [PCA D]	Off-Site	Metals, PHCs, VOCs, PAHs, and PCBs.	Soil and Groundwater
		11. Commercial Trucking and Container Terminals [PCA E]	Off-Site	Metals, PHCs, VOCs, PAHs, and PCBs.	Soil and Groundwater
		28. Gasoline and Associated Products Storage in Fixed Tanks [PCA F]	Off-Site	Metals, PHCs, BTEX, and PAHs.	Soil and Groundwater
		52. Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems [PCA G]	Off-Site	Metals, PHCs, VOCs, PAHs, and PCBs.	Soil and Groundwater
APEC #5	The northern limit of the Phase One Property.	12. Concrete, Cement and Lime Manufacturing [PCA H]	Off-Site	Metals, PHCs, and VOCs.	Soil and Groundwater
		34. Metal Fabrication [PCA I]	Off-Site	Metals, PHCs, and VOCs.	Soil and Groundwater
		59. Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products [PCA J]	Off-Site	Metals, PHCs, BTEX, and PAHs.	Soil and Groundwater
APEC #6	The western limit of the Phase One Property.	37. Operation of Dry-Cleaning Equipment (where chemicals are used) [PCA K]	Off-Site	VOCs.	Soil and Groundwater
APEC #7	The eastern limit of the Phase	39. Paints	Off-Site	Metals and VOCs.	Soil and Groundwater

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)
	One Property.	Manufacturing, Processing and Bulk Storage [PCA L]			
Notes: PHCs = Petroleum Hydrocarbons, VOCs = Volatile Organic Compounds, BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes, PCBs = Polychlorinated Biphenyls, PAHs = Polycyclic Aromatic Hydrocarbons					

Of note, the above noted report was supervised by a Qualified Person [QP] of SOIL-MAT ENGINEERS.

4.0 SCOPE OF THE INVESTIGATION

4.0 (i) OVERVIEW OF SITE INVESTIGATION

Our Phase Two activities included the advancement of eight [8] boreholes on the Site and the installation of a groundwater monitoring well at each borehole location, upon completion of drilling activities. However, it is noted that the Phase Two activities were completed in conjunction with a geotechnical investigation of the Site, by this Office, and as such not all of the boreholes and groundwater monitoring wells were utilised as part of the Phase Two activities. In total, six [6] borehole/groundwater monitoring wells were advanced in specific areas of potential environmental concern on the Site.

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, in this case being Petroleum Hydrocarbons [PHCs], Benzene, Toluene, Ethylbenzene, and Xylene mixture [BTEX], Volatile Organic Compounds [VOCs], Metals, Arsenic [As], Antimony [Sb], Selenium [Se], BHWS, Cyanide [CN-], Electrical Conductivity [EC], Chromium [Cr (VI)], Mercury [Hg] and Sodium Adsorption Ratio [SAR], Polycyclic Aromatic Hydrocarbons [PAHs], and Polychlorinated Biphenyls [PCBs]. For reporting purposes, the COPCs listed above [with the exception of PHCs, BTEX, PAHs, PCBs, and VOCs] are hereinafter referred to as "Metals".

4.0 (ii) MEDIA INVESTIGATED

The purpose of the Phase Two activities was to assess the soil and groundwater quality within the limits of the Phase Two Property, as related to the environmental concerns identified in our May 2, 2023 Phase One ESA report.

4.0 (iii) PHASE ONE CONCEPTUAL SITE MODEL

The Site is comprised of an irregularly shaped parcel of land located on the northwest corner of Plains Road West and Howard Road, and is commonly recognized with the municipal address of '127 Plains Road West' in the City of Burlington, Ontario.

SOIL-MAT ENGINEERS completed a Phase One ESA for the Site in May of 2024. The information gathered during the completion of this Phase One ESA report revealed that the Site was first developed Site was circa 1909 to 1936 as residential use lands. The first readily available visual aid for the Site is a topographic map from 1909 which illustrates the Site as vacant agricultural use lands. Other visual aids, including aerial photographs from 1934, 1954, 1960, 1978, 1988, 1998, 2004, 2009, 2016 and 2023, and topographic maps from 1938, 1961, and 1999 confirm the development timeline above.

The neighbouring and nearby lands to the Site are comprised of a mixture of residential, commercial, forested lands and industrial use properties. Information gathered, for the adjoining and nearby properties, during the Phase One ESA revealed nine [9] PCAs on lands in the Phase One Study Area that are considered likely to cause an APEC on the Site.

As a result of our Phase One ESA finding, the following PCAs and associated APECs 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	The parking lot of the Phase One Property.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA A]	On-Site	Metals, PHCs, BTEX, and PAHs.	Soil and Groundwater
APEC #2	The vicinity of the former building on the northeastern portion of the Phase One Property.	30. Importation of Fill Material of Unknown Quality [PCA B]	On-Site	Metals, PHCs, and BTEX.	Soil
APEC #3	The vicinity of the transformer box on the eastern portion of the Phase One Property.	55. Transformer Manufacturing, Processing and Use [PCA C]	On-Site	PCBs and PHCs	Soil
APEC #4	The northern and eastern limits of the Phase One Property.	10. Commercial Autobody Shops [PCA D]	Off-Site	Metals, PHCs, VOCs, PAHs, and PCBs.	Soil and Groundwater
		11. Commercial Trucking and Container Terminals [PCA E]	Off-Site	Metals, PHCs, VOCs, PAHs, and PCBs.	Soil and Groundwater
		28. Gasoline and Associated Products Storage in Fixed Tanks [PCA F]	Off-Site	Metals, PHCs, BTEX, and PAHs.	Soil and Groundwater
		52. Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems [PCA G]	Off-Site	Metals, PHCs, VOCs, PAHs, and PCBs.	Soil and Groundwater
APEC #5	The northern limit of the Phase One Property.	12. Concrete, Cement and Lime Manufacturing [PCA H]	Off-Site	Metals, PHCs, and VOCs.	Soil and Groundwater
		34. Metal Fabrication [PCA I]	Off-Site	Metals, PHCs, and VOCs.	Soil and Groundwater
		59. Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products [PCA J]	Off-Site	Metals, PHCs, BTEX, and PAHs.	Soil and Groundwater

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 #6	The western limit of the Phase One Property.	37. Operation of Dry-Cleaning Equipment (where chemicals are used) [PCA K]	Off-Site	VOCs.	Soil and Groundwater
APEC #7	The eastern limit of the Phase One Property.	39. Paints Manufacturing, Processing and Bulk Storage [PCA L]	Off-Site	Metals and VOCs.	Soil and Groundwater
Notes: PHCs = Petroleum Hydrocarbons, VOCs = Volatile Organic Compounds, BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes, PCBs = Polychlorinated Biphenyls, PAHs = Polycyclic Aromatic Hydrocarbons					

No other PCAs were identified on the Phase Two Property or on the neighbouring lands or lands located within the Phase One Study Area.

SOIL-MAT ENGINEERS' Phase One CSM is included in Appendix 'A' of this Report for reference.

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 the completion of our Phase Two ESA activities.

4.0 (v) IMPEDIMENTS

There were no impediments to SOIL-MAT ENGINEERS' planned Phase Two activities.

5.0 INVESTIGATION METHODS

5.0 (i) GENERAL

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

5.0 (ii) DRILLING AND EXCAVATING

All boreholes were advanced, over a six day period, using hollow stem continuous flight auger equipment between April 29, 2024 and May 7, 2024 under the supervision of a representative of SOIL-MAT ENGINEERS.

The physical advancement of the boreholes and installation of the groundwater monitoring wells was performed by Davis Drilling Ltd., via a track mounted drill rig under the supervision of a representative of SOIL-MAT ENGINEERS.

Soil samples were generally collected in 0.76m 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.

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 [2] 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 delivered to 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 and delivered to AGAT's depot location in Stoney Creek, Ontario in coolers equipped with ice packs to help maintain a temperature range between the applicable 0^{o}C to 10^{o}C. As reported on the chain of custody for the soil samples, the samples were delivered to AGAT with an average temperature of 4.8^{o}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.

In addition, an RKI Eagle gas detector was utilised during the collection of the soil samples. All samples subjected to field screening had a reading of 0 ppm.

5.0 (v) GROUND WATER: MONITORING WELL INSTALLATION

A 50 millimetre groundwater monitoring well was installed at Borehole Nos. 1B, 2, 3, 4, 5B and 6 upon the completion of drilling activities. The monitoring wells were installed to depths of approximately 14.0 to 15.9 metres below ground surface, with a screened interval in the lower 3.05 metres. The groundwater monitoring wells 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 the groundwater monitoring well is maintained in an appropriate, safe and secure condition as per the Regulation and to arrange for the monitoring well 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]
MW1A	32.1	71.00	3.00	29.0 – 32.0	28.7 – 32.0	0 – 28.7	103.07
MW1B	15.2	87.80	3.00	12.2 – 15.2	11.9 – 15.2	0 – 11.9	103.08
MW2	14.3	82.80	3.00	12.0 – 15.0	11.7 – 15.0	0 – 11.7	103.12
MW3	15.9	87.30	3.10	12.3 – 15.4	12.0 – 15.4	0 – 12.4	103.15
MW4	15.8	87.40	3.00	11.8 – 14.8	11.5 – 14.8	0 – 11.5	103.26
MW5A	30.6	72.60	3.00	27.6 – 30.6	27.2 – 30.6	0 – 27.2	103.19
MW5B	14.0	89.20	3.00	11.0 – 14.0	10.6 – 14.0	0 – 10.6	103.23
MW6	14.3	89.00	3.70	11.5 – 15.2	11.9 – 15.2	0 – 11.9	103.31

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

An Oil / Water interface probe was utilized during the monitoring and collection of the groundwater samples. Of note, a light non-aqueous phase liquid [LNAPL] layer was not identified in any of the monitoring wells utilized as part of these Phase Two activities.

The groundwater samples were picked up at our office by AGAT on ice to begin cooling the samples between the applicable 0°C to 10°C [average temperature of 6.0 °C].

5.0 (vii) GROUND WATER: SAMPLING

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

The monitoring wells installed on the Site were equipped with dedicated sampling equipment, including a 25 millimetre water bailer for sample collection for the PHC and BTEX parameters, as well as tubing fitted with foot valves for the metal parameters, utilising field filtering equipment where applicable.

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.

5.0 (viii) SEDIMENT SAMPLING

Sediment sampling was not conducted as part of the Phase Two ESA activities as the mediums of concern were 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 in steel 45-gallon drums until the results of the laboratory analytical testing demonstrated that the subject soil material met the applicable SCSs. The drums were collected and transported off-site by Davis Drilling Ltd., at the time of drilling.

Purged groundwater was stored on-site in plastic 5-gallon pails until the results of the laboratory analytical testing. As elevated levels of select VOC parameters was reported in the groundwater the groundwater will be need to be disposed of as waste at a licensed waste receiver.

5.0 (xi) ELEVATION SURVEYING

All boreholes and groundwater monitoring wells were surveyed by a staff member of SOIL-MAT ENGINEERS to facilitate geodetic survey information. A manhole cover, located by the tenant parking spaces in the immediate vicinity of the Site, was utilized as a benchmark with a geodetic elevation of 102.89 metres on the survey provided to our office (A.T. McLaren Ltd. Drawing No. 30012-T, dated April 10, 2024).

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 the boreholes were advanced through the existing pavement structure, which was found to consist of approximately 125 millimetres of asphaltic concrete overlying approximately 300 to 450 millimetres of granular base material. The pavement structure encountered at the borehole locations has been summarized as follows:

Table A – Pavement Structure

Borehole No.	Asphaltic Concrete (mm)	Granular Base (mm)
1A / 1B	125	450
2	125	450
3	125	450
4	125	300
5A / 5B	125	450
6	125	450

- SAND AND GRAVEL FILL: Sand and gravel fill material was encountered below the pavement structure at Borehole Nos. 2, 3, 4, and 6. The granular fill material was brown in colour, typically containing trace to some silt, occasional to moderate cobbles, occasionally exhibited clayey seams in the lower levels, and was generally found to be in a very loose to dense state. The granular fill encountered was proven to depths of between approximately 2.3 to 4.7 metres below the existing ground surface. Given the granular nature of the fill, the transition from fill materials to native sand and gravel was somewhat indistinct. As such, material identified as sand and gravel fill material may in fact be native sand and gravel.
- SAND FILL: Sand fill was encountered below the pavement structure and in Borehole Nos. 1A/1B & 5A/5B. The granular fill material was brown in colour, contained traces of, to some, silt and gravel, and was noted to be in a very loose to compact state. The granular fill encountered was proven to depths of between approximately 2.1 to 2.2 metres below the existing ground surface.
- SAND AND GRAVEL: Native sand and gravel material was encountered immediately beneath the fill material at all borehole locations. The granular material was brown in colour, with varying gravel content throughout, typically containing traces of silt and clay, occasional to frequent cobbles, contained a seam of reddish-brown silty clay/clayey silt in Borehole Nos. 1A/1B, and was generally found to be in a compact to very dense state. The native material was proven to depths of between approximately 4.1 to 10.3 metres below the existing ground surface. As noted above, given the granular nature of the fill overburden, the transition from fill materials to native sand and gravel was somewhat indistinct. As such, material identified as native sand and gravel may in fact be fill material.

- SAND: Native sand material was encountered immediately beneath the native silty clay/clayey silt in Borehole No. 4, and beneath the native sand and gravel at all remaining Borehole locations. The granular material was brown in colour, typically containing trace to some silt and gravel, occasionally exhibiting silty layers in the lower levels, and was generally found to be in a compact to very dense state. The native material was proven to depths of between approximately 14.0 to 17.9 metres below the existing ground surface.
- SILTY CLAY/CLAYEY SILT: Native silty clay/clayey silt soil was beneath the native sand and gravel in Borehole No. 6, and beneath the native sand in Borehole Nos. 1A and 5A. The silty clay/clayey silt was reddish-brown in colour in Borehole No. 6, and grey in Borehole No. 1A and 5A, contained traces of, to some, sand, trace gravel in the upper levels, and was generally in a very soft state in Borehole No. 6, while exhibiting a stiff to very stiff state in Borehole Nos. 1A and 5A. The fine-grained native soil was proven to depths of between approximately 7.1 to 22.4 metres below the existing ground surface.
- SANDY AND SILTY GRAVEL: Native sandy and silty gravel material was encountered beneath the silty clay/clayey silt in Borehole Nos. 1A and 5A. The native material was red to reddish grey in colour, with a high gravel content in the upper levels, containing traces of clay increasing with depth, and was generally in a very dense state. The cohesive material was proven to depths of between approximately 25.6 to 27.5 metres below the existing ground surface.
- QUEENSTON SHALE: Queenston Shale was encountered beneath the native sandy and silty gravel at Borehole Nos. 1A and 5A. The shale was red, severely weathered in the upper levels, becoming sounder with depth, and containing occasional more resistant grey layers. The degree of weathering in the upper levels of the Queenston Shale is such that it tends to exhibit the properties of a hard cohesive soil, or weak rock, as evidenced by the ability to penetrate the bedrock with the solid stem augers of the drill. As such, the transition between hard soil and weak rock is somewhat indistinct.
- GROUNDWATER: Based on our observations during drilling, the available data, and our experience in the area, the static groundwater level is estimated at an elevation of approximately 88 to 91 metres. The groundwater elevation was observed at a depth of approximately 13 metres below the exiting grade, with some deeper aquifers encountered from the bedrock wells installed. It is noted that the groundwater level would be subject to seasonal variation due to prevailing weather conditions.

6.0 (ii) GROUND WATER: ELEVATIONS AND FLOW DIRECTIONS

All boreholes were recorded as ‘dry’ upon completion of drilling activities at depths of 14.0 to 15.9 metres below the existing ground surface. 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 all boreholes for future monitoring of the static groundwater level and to facilitate the collection of groundwater samples. The monitoring installation details are summarized in the table below.

TABLE A - SUMMARY OF GROUNDWATER LEVELS

Borehole No.	Surface Elevation (m)	May 30, 2024		June 6, 2024	
		Depth [m]	Elev. [m]	Depth [m]	Elev. [m]
MW1A	103.07	15.15	87.92	15.15	87.92
MW1B	103.08	13.15	89.93	13.18	89.9
MW2	103.12	13.07	90.05	13.07	90.05
MW3	103.15	12.9	90.25	12.83	90.32
MW4	103.26	12.95	90.31	12.96	90.30
MW5A	103.19	15.16	88.03	15.2	87.99
MW5B	103.23	13.19	90.04	12.82	90.41
MW6	103.31	13.07	90.24	13.06	90.25

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 12.83 to 15.16 metres below the existing ground surface, although seasonal fluctuations must be expected.

Based on the groundwater contours, extrapolated from the recorded static groundwater levels on the Site, the groundwater flow direction through the Site is to the southeast.

The monitoring well locations, groundwater contours, and inferred groundwater 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 activities. Based on these recordings, the distance between the groundwater monitoring wells and the depth of well installation the horizontal hydraulic gradient was calculated as -0.001, as follows:

Horizontal hydraulic gradient = $\Delta h / \Delta L$
= (MW 1A groundwater elevation in metres – MW 2 groundwater elevation in metres)/ (Distance between MW 1A and MW 2 in metres)
= (103.07 metres – 103.12 metres)/ 50 metres
= -0.05 metres/ 50 metres
=-0.001

6.0 (iv) COARSE SOIL TEXTURE

SOIL-MAT ENGINEERS' conducted hydrometer testing on six [6] samples. The results of the hydrometers indicate that the surface and subsurface soil consists primarily of a brown to reddish-brown sand with a trace of silt and clay as the predominant soil type. Given the above, the soil has less than 50% finer than the 75 um sieve, and so is classified as coarse textured.

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, eighteen [18] soil samples and 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 [APEC / PCA]	Depth [m bgs]	Laboratory Analysis	Soil Description
BH1A SS2 [APEC#1, 6 / PCA#28 and 37]	1.52-1.83	Metals, PHCs, BTEX, VOCs, PAHs	Sand Fill
BH1A SS5 [APEC#1, 6 / PCA#28 and 37]	3.81-4.11	Metals, PHCs, BTEX, VOCs, PAHs	Sand/ Gravel
BH1A SS13 [APEC#1, 6 / PCA#28 and 37]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs	Sand
BH2 SS5 [APEC#1 / PCA#28]	3.81-4.11	Metals, PHCs, BTEX, VOCs, PAHs	Sand/ Gravel Fill
BH2 SS11 [APEC#1 / PCA#28]	10.67-10.97	Metals, PHCs, BTEX, VOCs, PAHs	Sand
BH2 SS13 [APEC#1 / PCA#28]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs	Sand
BH3 SS2 [APEC#1, 7 / PCA#28 and 39]	1.52-1.83	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel Fill
BH3 SS8 [APEC#1, 7 / PCA#28 and 39]	7.62-7.92	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel
BH3 SS12 [APEC#1, 7 / PCA#28 and 39]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand
BH4 SS2 [APEC#1, 2, 7 / PCA#28, 30 and 39]	0.91-1.06	Metals, PHCs, BTEX, VOCs, PAHs	Sand/ Gravel Fill
BH4 SS9 [APEC#1, 2, 7 / PCA#28, 30 and 39]	7.62-7.92	Metals, PHCs, BTEX, VOCs, PAHs	Silty Clay/ Clayey Silt
BH4 SS13 [APEC#1, 2, 7 / PCA#28, 30 and 39]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs	Sand
BH5A SS1 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	0.76-1.07	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand Fill
BH5A SS10 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	10.67-10.97	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel
BH5A SS12 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand

Sample ID [APEC / PCA]	Depth [m bgs]	Laboratory Analysis	Soil Description
BH6 SS2 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	1.52-1.83	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel Fill
BH6 SS6 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	4.57-4.88	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel Fill
BH6 SS13 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand
Dup1 [BH5A] [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	0.76-1.07	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand Fill
Dup2 [BH2] [APEC#1 / PCA#28]	10.67-10.97	Metals, PHCs, BTEX, VOCs, PAHs	Sand
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, PAHs= Polycyclic Aromatic Hydrocarbons, PCBs = Polychlorinated Biphenyls			

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 3 RPI Exceedances
BH1A SS2 [APEC#1, 6 / PCA#28 and 37]	1.52-1.83	Metals, PHCs, BTEX, VOCs, PAHs	Sand Fill	No exceedances reported
BH1A SS5 [APEC#1, 6 / PCA#28 and 37]	3.81-4.11	Metals, PHCs, BTEX, VOCs, PAHs	Sand/ Gravel	No exceedances reported
BH1A SS13 [APEC#1, 6 / PCA#28 and 37]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs	Sand	No exceedances reported
BH2 SS5 [APEC#1 / PCA#28]	3.81-4.11	Metals, PHCs, BTEX, VOCs, PAHs	Sand/ Gravel Fill	No exceedances reported
BH2 SS11 [APEC#1 / PCA#28]	10.67-10.97	Metals, PHCs, BTEX, VOCs, PAHs	Sand	No exceedances reported
BH2 SS13 [APEC#1 / PCA#28]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs	Sand	No exceedances reported
BH3 SS2 [APEC#1, 7 / PCA#28 and 39]	1.52-1.83	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel Fill	Exceeds the Table 3 RPI SCS for Electrical Conductivity: 0.923 µg/g reported vs 0.7 µg/g standard and Sodium Adsorption Ratio: 6.6 µg/g reported vs 5 µg/g standard
BH3 SS8 [APEC#1, 7 / PCA#28 and 39]	7.62-7.92	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel	No exceedances reported
BH3 SS12 [APEC#1, 7 / PCA#28 and 39]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand	No exceedances reported
BH4 SS2 [APEC#1, 2, 7 /	0.91-1.06	Metals, PHCs, BTEX, VOCs,	Sand/ Gravel Fill	Exceeds the Table 3 RPI SCS for Sodium Adsorption Ratio: 5.62

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 3 RPI Exceedances
PCA#28, 30 and 39]		PAHs		µg/g reported vs 5 µg/g standard
BH4 SS9 [APEC#1, 2, 7 / PCA#28, 30 and 39]	7.62-7.92	Metals, PHCs, BTEX, VOCs, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH4 SS13 [APEC#1, 2, 7 / PCA#28, 30 and 39]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs	Sand	No exceedances reported
BH5A SS1 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	0.76-1.07	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand Fill	Exceeds the Table 3 RPI SCS for Sodium Adsorption Ratio: 5.51 µg/g reported vs 5 µg/g standard
BH5A SS10 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	10.67-10.97	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel	No exceedances reported
BH5A SS12 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand	No exceedances reported
BH6 SS2 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	1.52-1.83	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel Fill	Exceeds the Table 3 RPI SCS for Electrical Conductivity: 1.08 µg/g reported vs 0.7 µg/g standard and Sodium Adsorption Ratio: 8.02 µg/g reported vs 5 µg/g standard
BH6 SS6 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	4.57-4.88	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand/ Gravel Fill	No exceedances reported
BH6 SS13 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	13.72-14.02	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand	No exceedances reported
Dup1 [BH5A] [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	0.76-1.07	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Sand Fill	No exceedances reported
Dup2 [BH2] [APEC#1 / PCA#28]	10.67-10.97	Metals, PHCs, BTEX, VOCs, PAHs	Sand	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, PAHs= Polycyclic Aromatic Hydrocarbons, PCBs = Polychlorinated Biphenyls

The Phase Two activities carried out by SOIL-MAT ENGINEERS revealed the following exceedances for select metal parameters in the soil medium:

- Elevated levels of Electrical Conductivity [EC] and Sodium Adsorption Ratio [SAR] were found to exceed the Table 3 RPI SCSs across the majority of the Site. However, Section 49.1 of Regulation 153/04 [as amended], provides the following exemption: “If an applicable site condition standard is exceeded at a property solely because of one

of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act:

- The qualified person has determined, based on a phase one environmental site assessment or a phase two environmental site assessment, that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both."

  Given the historical use of de-icing salts on the Site as a commercial parking lot and use on the adjacent municipal roadways, it is the opinion of the Soil-Mat Engineers that the elevated levels of the noted parameters are a direct result of a substance applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. As such, EC and SAR are not considered contaminants on the Site. In addition, the soil samples with reported elevated levels of EC and/or SAR above the Table 3 RPI SCSs are not considered to exceed the Standards.

- The laboratory analytical test results for the remaining soil samples are all below the applicable Ontario Regulation 153/04 [as amended] Table 3 RPI SCSs for the select tested Contaminants of Potential Concern groupings

The Phase Two Property, borehole locations and laboratory analytical test results are illustrated on Drawing Nos. 3, 3A-3G and 4A-4F 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, twelve [12] groundwater samples, and two [2] duplicate samples, 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 groundwater samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

Sample ID [APEC / PCA]	Laboratory Analysis
MW1-S1 [APEC#1, 6 / PCA#28 and 37]	Metals, PHCs, BTEX, VOCs, PAHs
MW1-S1A [APEC#1, 6 / PCA#28 and 37]	Metals, PHCs, BTEX, VOCs, PAHs
MW2-S1 [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs
MW2-S1A [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs
MW3-S1 [APEC#1, 7 / PCA#28 and 39]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs
MW3-S1A [APEC#1, 7 / PCA#28 and 39]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs
MW4-S1 [APEC#1, 2, 7 / PCA#28, 30 and 39]	Metals, PHCs, BTEX, VOCs, PAHs

Sample ID [APEC / PCA]	Laboratory Analysis
MW4-S1A [APEC#1, 2, 7 / PCA#28, 30 and 39]	Metals, PHCs, BTEX, VOCs, PAHs
MW5B-S1 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs
MW5B-S1A [APEC#1, 2, 4, 5 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs
MW6-S1 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs
MW6-S1A [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs
Dup 1 [MW2-S1] [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs
Dup 1A [MW2-S1A] [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs
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 PAHs = Polycyclic Aromatic Hydrocarbons PCBs = Polychlorinated Biphenyls	

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

SUMMARY OF ANALYTICAL TESTING – WATER [TABLE 3 PGW]

Sample ID	Laboratory Analysis	Table 3 PGW Exceedances
MW1-S1 [APEC#1, 6 / PCA#28 and 37]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
MW1-S1A [APEC#1, 6 / PCA#28 and 37]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
MW2-S1 [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
MW2-S1A [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
MW3-S1 [APEC#1, 7 / PCA#28 and 39]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	No exceedances reported
MW3-S1A [APEC#1, 7 / PCA#28 and 39]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Exceeds the Table 3 RPI SCS for Chloroform: 2.95 µg/g reported vs 2.4 µg/g standard
MW4-S1 [APEC#1, 2, 7 / PCA#28, 30 and 39]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
MW4-S1A [APEC#1, 2, 7 / PCA#28, 30 and 39]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
MW5B-S1 [APEC#1, 2, 4, 5, 7 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	No exceedances reported

Sample ID	Laboratory Analysis	Table 3 PGW Exceedances
MW5B-S1A [APEC#1, 2, 4, 5 / PCA#10, 11, 12, 28, 30, 34, 39, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	Exceeds the Table 3 RPI SCS for Chloroform: 3.54 µg/g reported vs 2.4 µg/g standard and Vinyl Chloride: 1.19 µg/g reported vs 0.5 µg/g standard
MW6-S1 [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	No exceedances reported
MW6-S1A [APEC#4, 5 / PCA#10, 11, 12, 28, 34, 52 and 59]	Metals, PHCs, BTEX, VOCs, PAHs, PCBs	No exceedances reported
Dup 1 [MW2-S1] [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs	No exceedances reported
Dup 1A [MW2-S1A] [APEC#1 / PCA#28]	Metals, PHCs, BTEX, VOCs, PAHs	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 PAHs = Polycyclic Aromatic Hydrocarbons PCBs = Polychlorinated Biphenyls		

The Phase Two activities carried out by SOIL-MAT ENGINEERS revealed the following exceedances for select volatile organic compound [VOC] parameters in the groundwater medium:

- The groundwater sample secured from monitoring well ‘MW3’ reportedly exceeds for a select VOC parameter [specifically Chloroform];
- The groundwater sample secured from monitoring well ‘MW5B’ reportedly exceeds for select VOC parameters [specifically Chloroform and Vinyl Chloride], and;
- The laboratory analytical test results for the remaining groundwater samples are all below the applicable Table 3 RPI SCSs for the select tested COPC groupings.

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 2 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.

7.0 CONCLUSIONS

As all of the secured soil samples, in the specific areas of potential environmental concern on the Site, reportedly meet the applicable Table 3 RPI SCSs no further intrusive soil sample is required at this time.

As the groundwater samples secured from monitoring wells 'MW3' and 'MW5B' reportedly exceed the applicable Table 3 RPI SCSs for select VOC parameters additional intrusive groundwater sampling is recommended to further delineate the lateral and vertical extent of these specific contaminants of concern [COCs] and/or demonstrate that the noted exceedances are anomalous in nature and not representative of the actual groundwater conditions at this location. It is noted that 'nested' groundwater monitoring wells will be required to assess the vertical extent of the specific COCs in the groundwater medium.

Further to the above, it is noted that given the laboratory analytical data currently available to this office an RSC is not able to be submitted at this time. Furthermore, pending the results of recommended supplemental assessment activities, some form of groundwater remediation or potentially a combination of remediation and Risk Assessment [RA] activities may be required to support an RSC filing.

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.

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

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.

Geena Gilmour, B.A.
Environmental Technician

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



Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP_{ESA}
Review Engineer

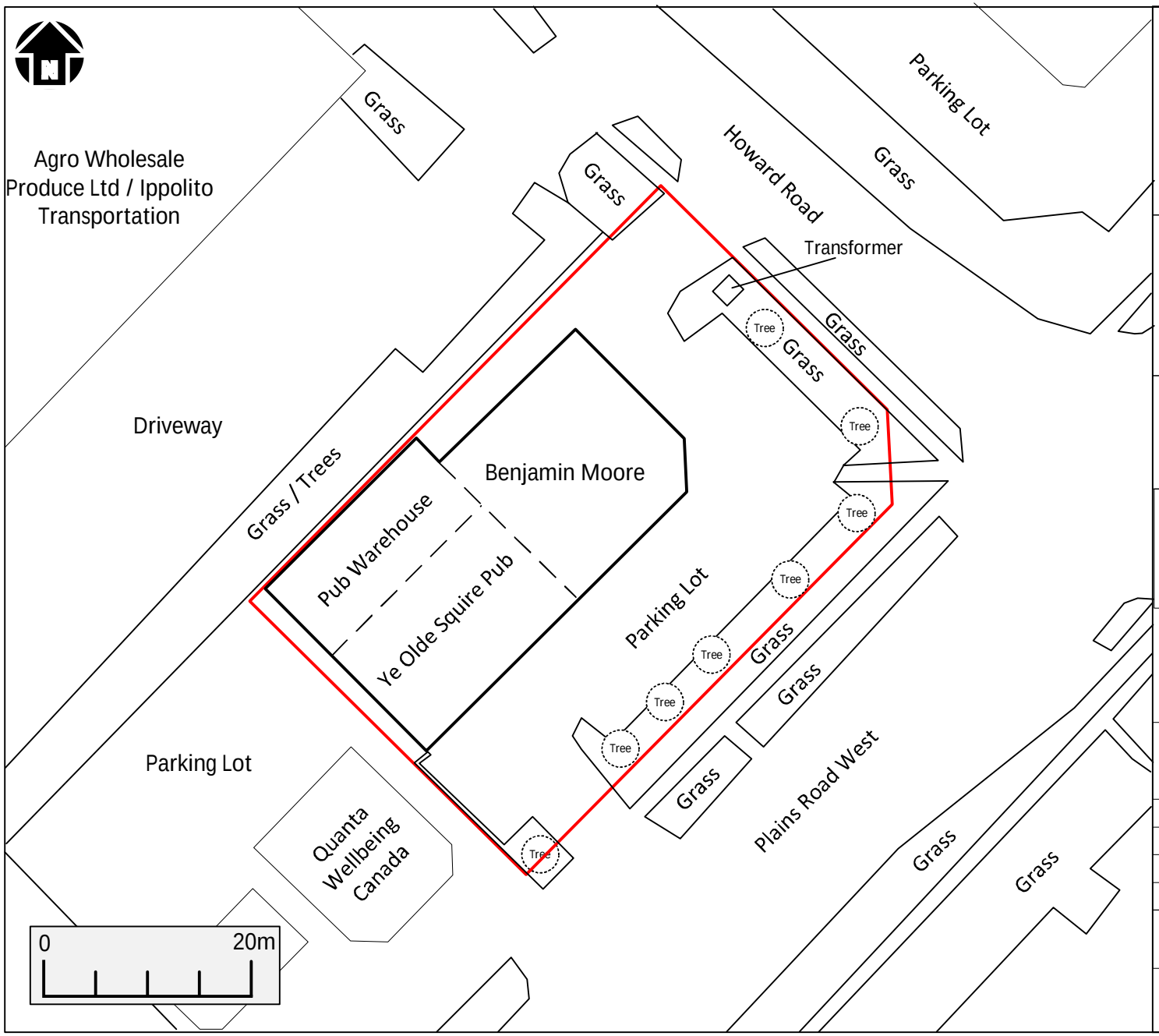
Distribution: LOSANI HOMES. [1]

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: Groundwater Flow Direction;
4. Drawing No.: 3: Borehole, Monitoring Well and Test Pit Location Plan;
5. Drawing No.: 3A: Analytical Data Summary [Soil] – M&I;
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] – PAHs;
10. Drawing No.: 3F: Analytical Data Summary [Soil] – PCBs;
11. Drawing No.: 3G: Analytical Data Summary [Soil] – VOCs;
12. Drawing No.: 4A: Analytical Data Summary [Groundwater] – M&I;
13. Drawing No.: 4B: Analytical Data Summary [Groundwater] – PHCs;
14. Drawing No.: 4C: Analytical Data Summary [Groundwater] – BTEX;
15. Drawing No.: 4D: Analytical Data Summary [Groundwater] – VOCs;
16. Drawing No.: 4E: Analytical Data Summary [Groundwater] – PAHs;
17. Drawing No.: 4F: Analytical Data Summary [Groundwater] – PCBs;
18. Borehole Logs



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

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PROJECT TITLE

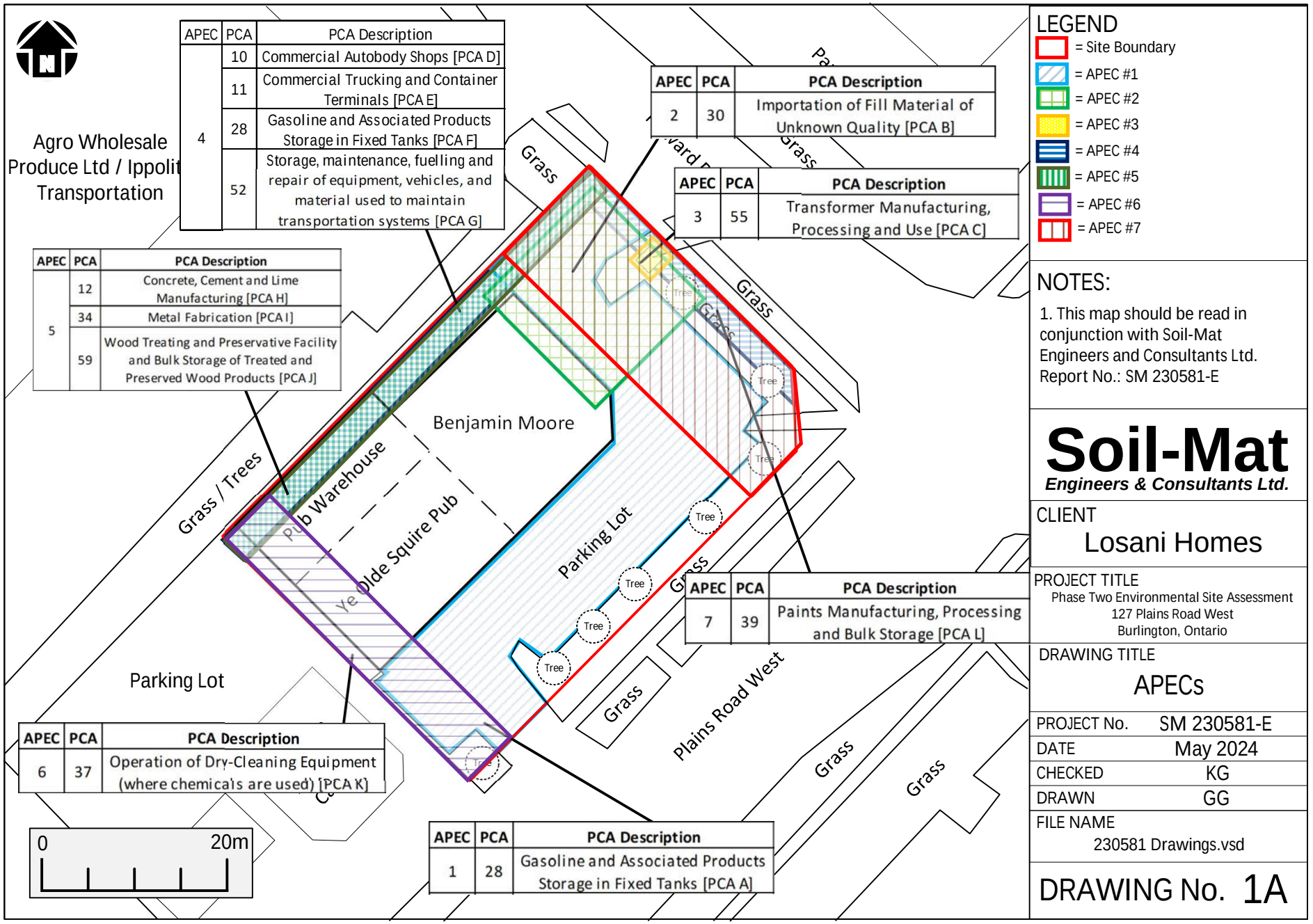
Phase Two Environmental Site Assessment
127 Plains Road West
Burlington, Ontario

DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 1



APEC	PCA	PCA Description
4	10	Commercial Autobody Shops [PCA D]
	11	Commercial Trucking and Container Terminals [PCA E]
	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA F]
	52	Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems [PCA G]

APEC	PCA	PCA Description
2	30	Importation of Fill Material of Unknown Quality [PCA B]

APEC	PCA	PCA Description
3	55	Transformer Manufacturing, Processing and Use [PCA C]

APEC	PCA	PCA Description
5	12	Concrete, Cement and Lime Manufacturing [PCA H]
	34	Metal Fabrication [PCA I]
	59	Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products [PCA J]

APEC	PCA	PCA Description
7	39	Paints Manufacturing, Processing and Bulk Storage [PCA L]

APEC	PCA	PCA Description
6	37	Operation of Dry-Cleaning Equipment (where chemicals are used) [PCA K]

APEC	PCA	PCA Description
1	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA A]

LEGEND

= Site Boundary
= APEC #1
= APEC #2
= APEC #3
= APEC #4
= APEC #5
= APEC #6
= APEC #7

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

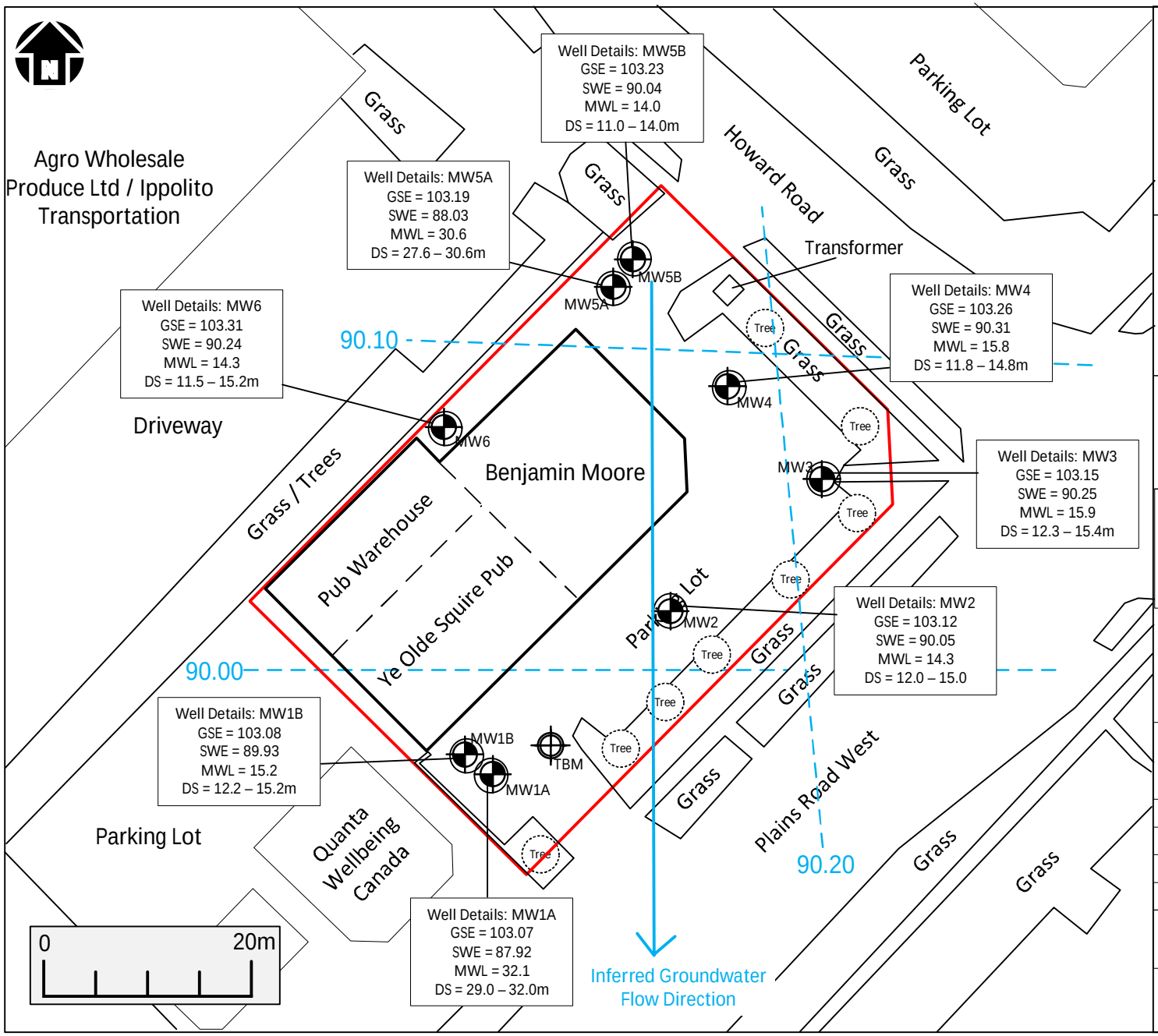
PROJECT TITLE
Phase Two Environmental Site Assessment
127 Plains Road West
Burlington, Ontario

DRAWING TITLE
APECs

PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG

FILE NAME
230581 Drawings.vsd

DRAWING No. 1A



LEGEND

= Site Boundary

BH/MW# = BH/MW Location

TBM = Temporary Benchmark
Top of Catchbasin with known elevation of 102.89m

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

2. Well readings were taken on May 30, 2024

Soil-Mat
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CLIENT

Losani Homes

PROJECT TITLE

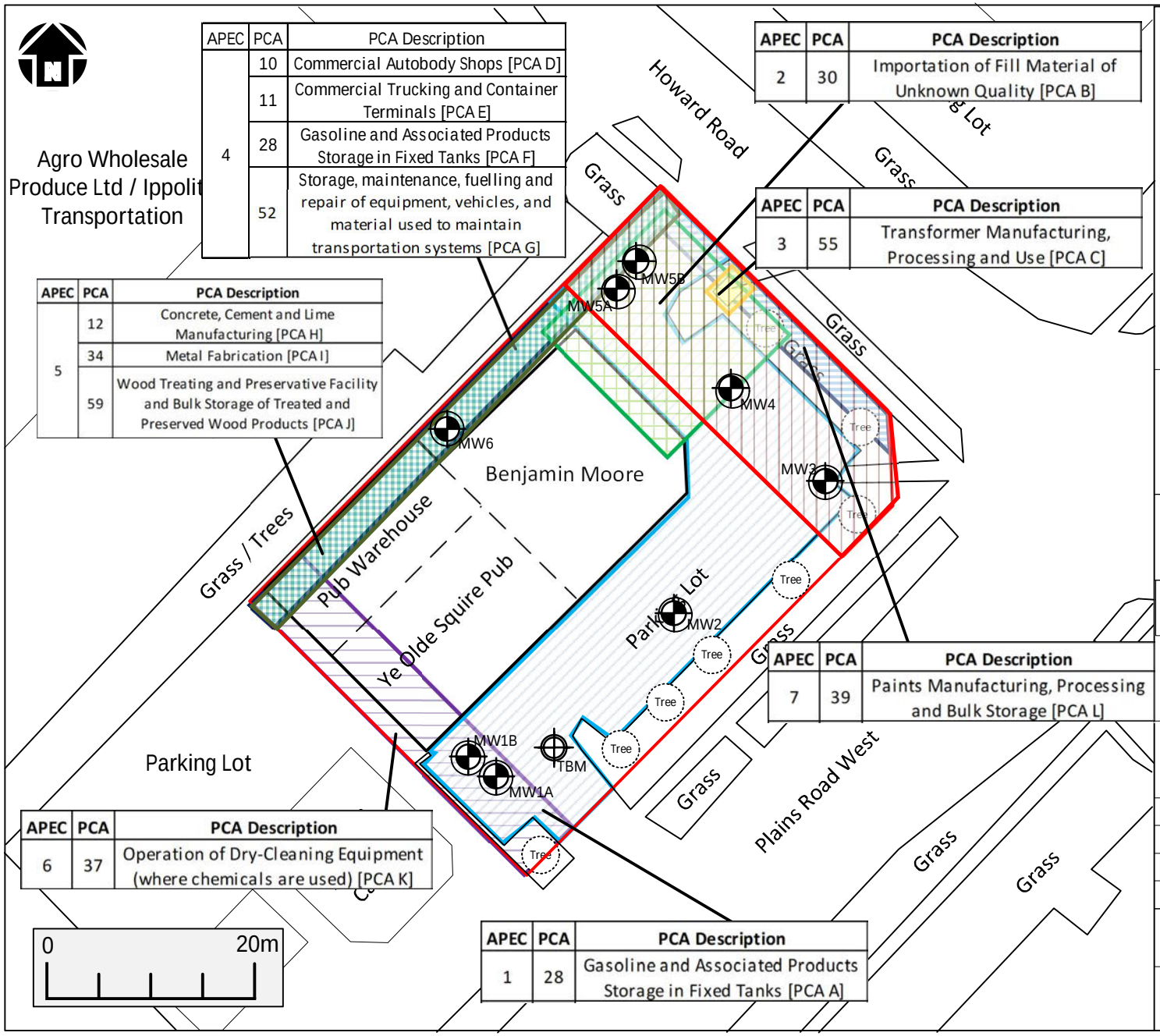
Phase Two Environmental Site Assessment
127 Plains Road West
Burlington, Ontario

DRAWING TITLE

Monitoring Well, Groundwater Contours and Interpreted Groundwater Flow Direction

PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 2



APEC	PCA	PCA Description
4	10	Commercial Autobody Shops [PCA D]
	11	Commercial Trucking and Container Terminals [PCA E]
	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA F]
	52	Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems [PCA G]

APEC	PCA	PCA Description
2	30	Importation of Fill Material of Unknown Quality [PCA B]

APEC	PCA	PCA Description
3	55	Transformer Manufacturing, Processing and Use [PCA C]

APEC	PCA	PCA Description
5	12	Concrete, Cement and Lime Manufacturing [PCA H]
	34	Metal Fabrication [PCA I]
	59	Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products [PCA J]

APEC	PCA	PCA Description
7	39	Paints Manufacturing, Processing and Bulk Storage [PCA L]

APEC	PCA	PCA Description
6	37	Operation of Dry-Cleaning Equipment (where chemicals are used) [PCA K]

APEC	PCA	PCA Description
1	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA A]

LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

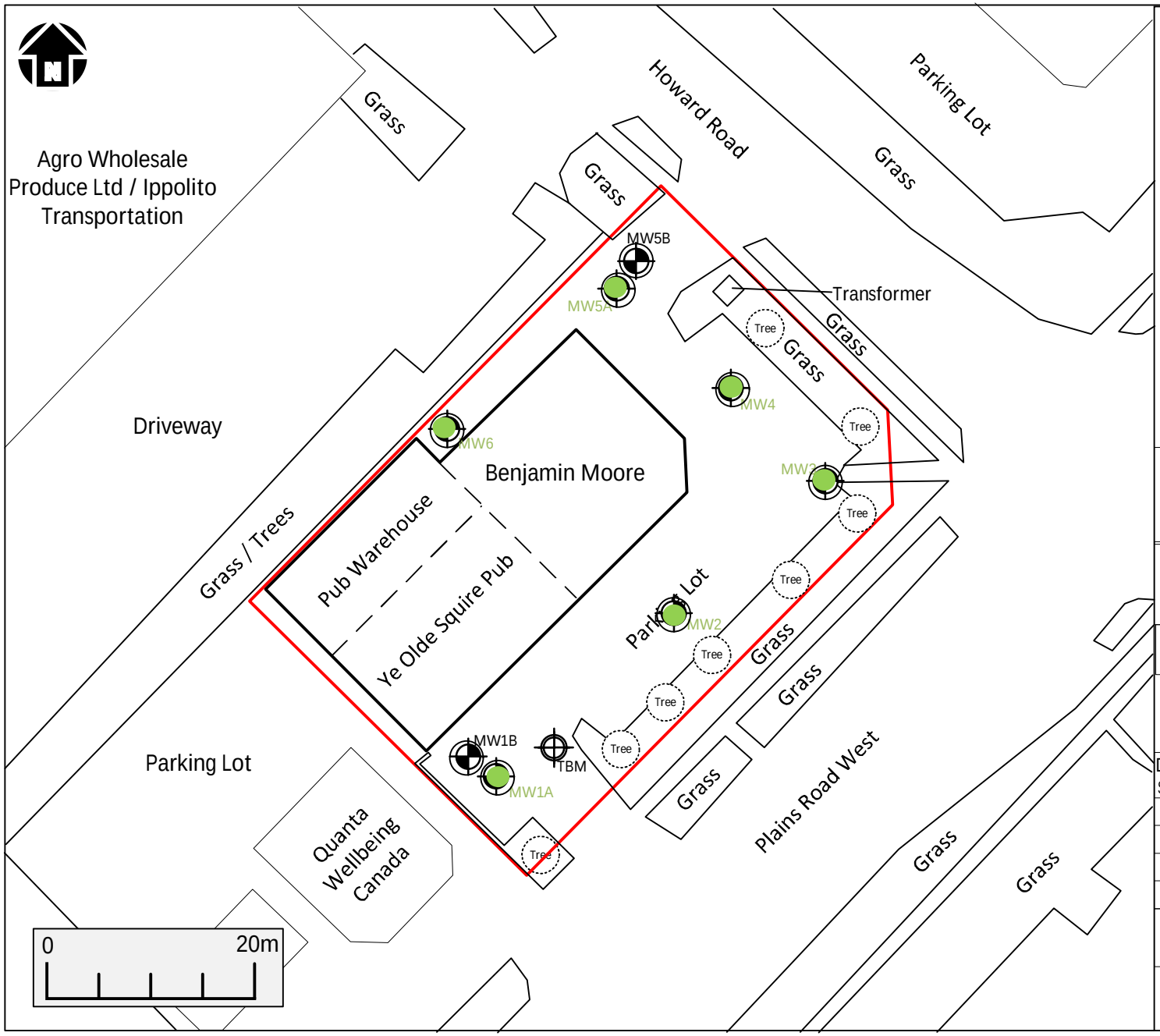
CLIENT: Losani Homes

PROJECT TITLE: Phase Two Environmental Site Assessment
127 Plains Road West
Burlington, Ontario

DRAWING TITLE: Borehole/ Groundwater Monitoring Well Locations

PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

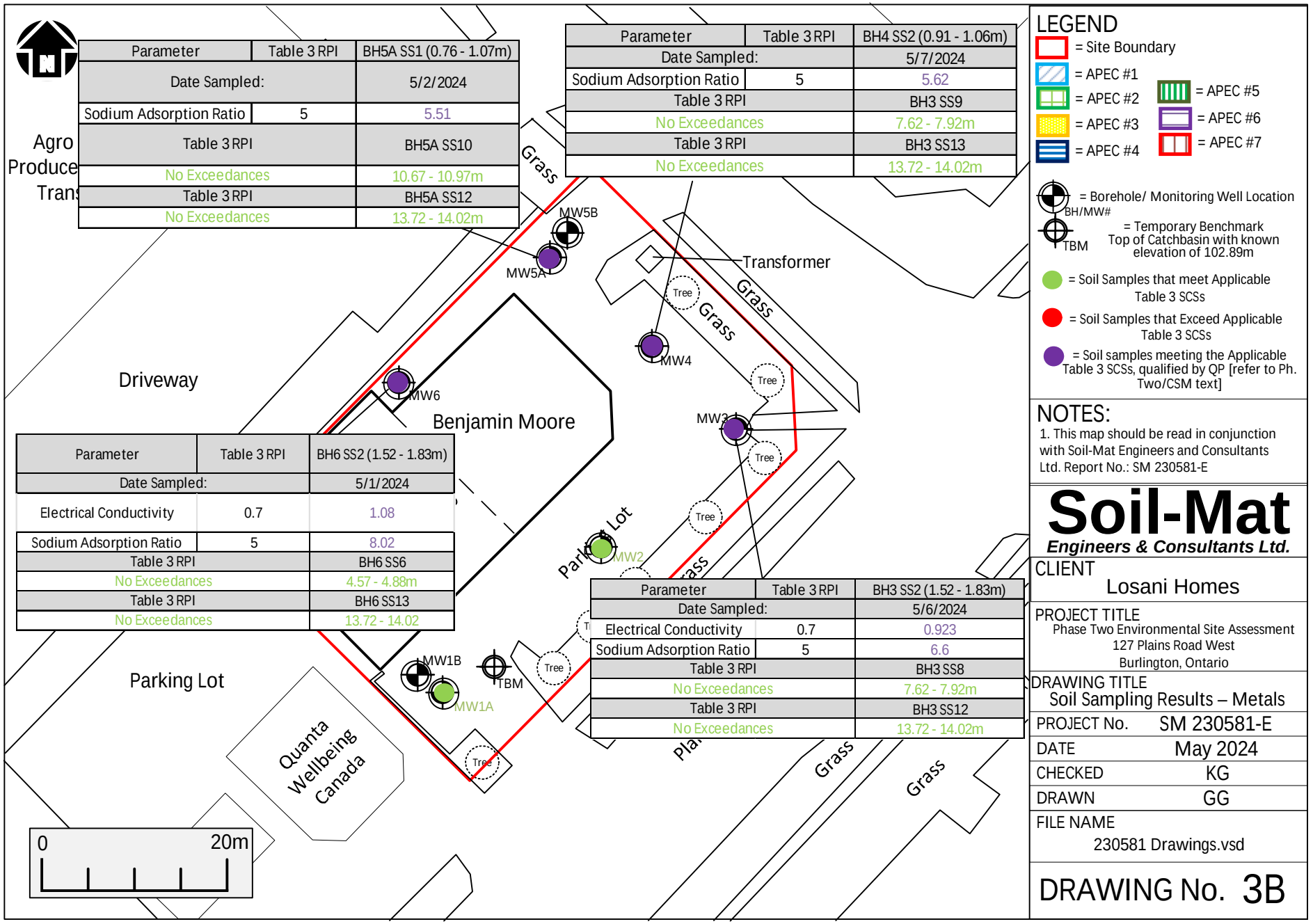
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Soil Sampling Results – Metals & Inorganics
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3A



Parameter	Table 3 RPI	BH5A SS1 (0.76 - 1.07m)
Date Sampled:		5/2/2024
Sodium Adsorption Ratio	5	5.51
Table 3 RPI		BH5A SS10
No Exceedances		10.67 - 10.97m
Table 3 RPI		BH5A SS12
No Exceedances		13.72 - 14.02m

Parameter	Table 3 RPI	BH4 SS2 (0.91 - 1.06m)
Date Sampled:		5/7/2024
Sodium Adsorption Ratio	5	5.62
Table 3 RPI		BH3 SS9
No Exceedances		7.62 - 7.92m
Table 3 RPI		BH3 SS13
No Exceedances		13.72 - 14.02m

Parameter	Table 3 RPI	BH6 SS2 (1.52 - 1.83m)
Date Sampled:		5/1/2024
Electrical Conductivity	0.7	1.08
Sodium Adsorption Ratio	5	8.02
Table 3 RPI		BH6 SS6
No Exceedances		4.57 - 4.88m
Table 3 RPI		BH6 SS13
No Exceedances		13.72 - 14.02

Parameter	Table 3 RPI	BH3 SS2 (1.52 - 1.83m)
Date Sampled:		5/6/2024
Electrical Conductivity	0.7	0.923
Sodium Adsorption Ratio	5	6.6
Table 3 RPI		BH3 SS8
No Exceedances		7.62 - 7.92m
Table 3 RPI		BH3 SS12
No Exceedances		13.72 - 14.02m

LEGEND

= Site Boundary
= APEC #1
= APEC #2
= APEC #3
= APEC #4
= APEC #5
= APEC #6
= APEC #7

= Borehole/ Monitoring Well Location
BH/MW#

= Temporary Benchmark
TBM
Top of Catchbasin with known elevation of 102.89m

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that Exceed Applicable Table 3 SCSs

= Soil samples meeting the Applicable Table 3 SCSs, qualified by QP [refer to Ph. Two/CSM text]

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
Losani Homes

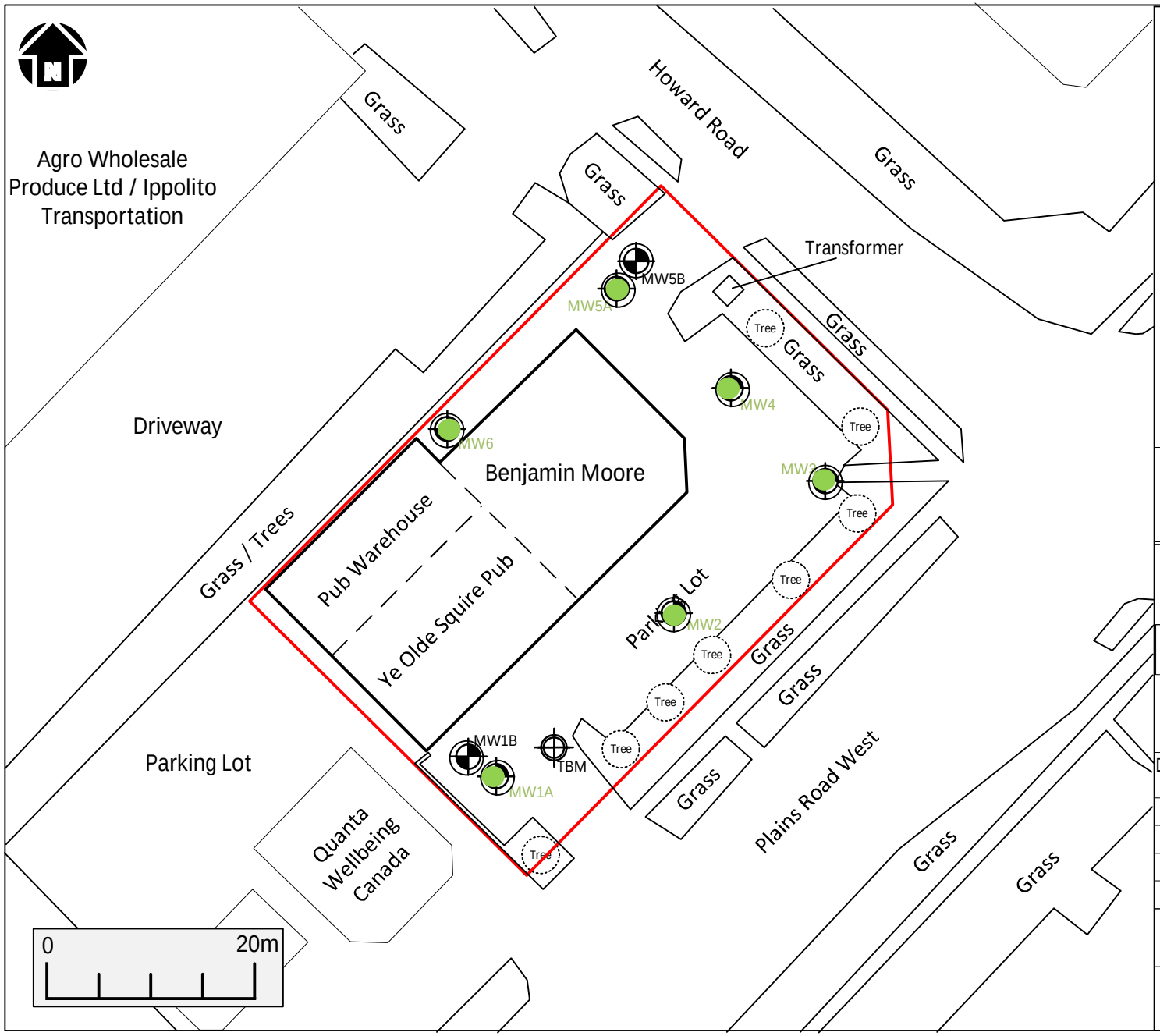
PROJECT TITLE
Phase Two Environmental Site Assessment
127 Plains Road West
Burlington, Ontario

DRAWING TITLE
Soil Sampling Results – Metals

PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG

FILE NAME
230581 Drawings.vsd

DRAWING No. 3B



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

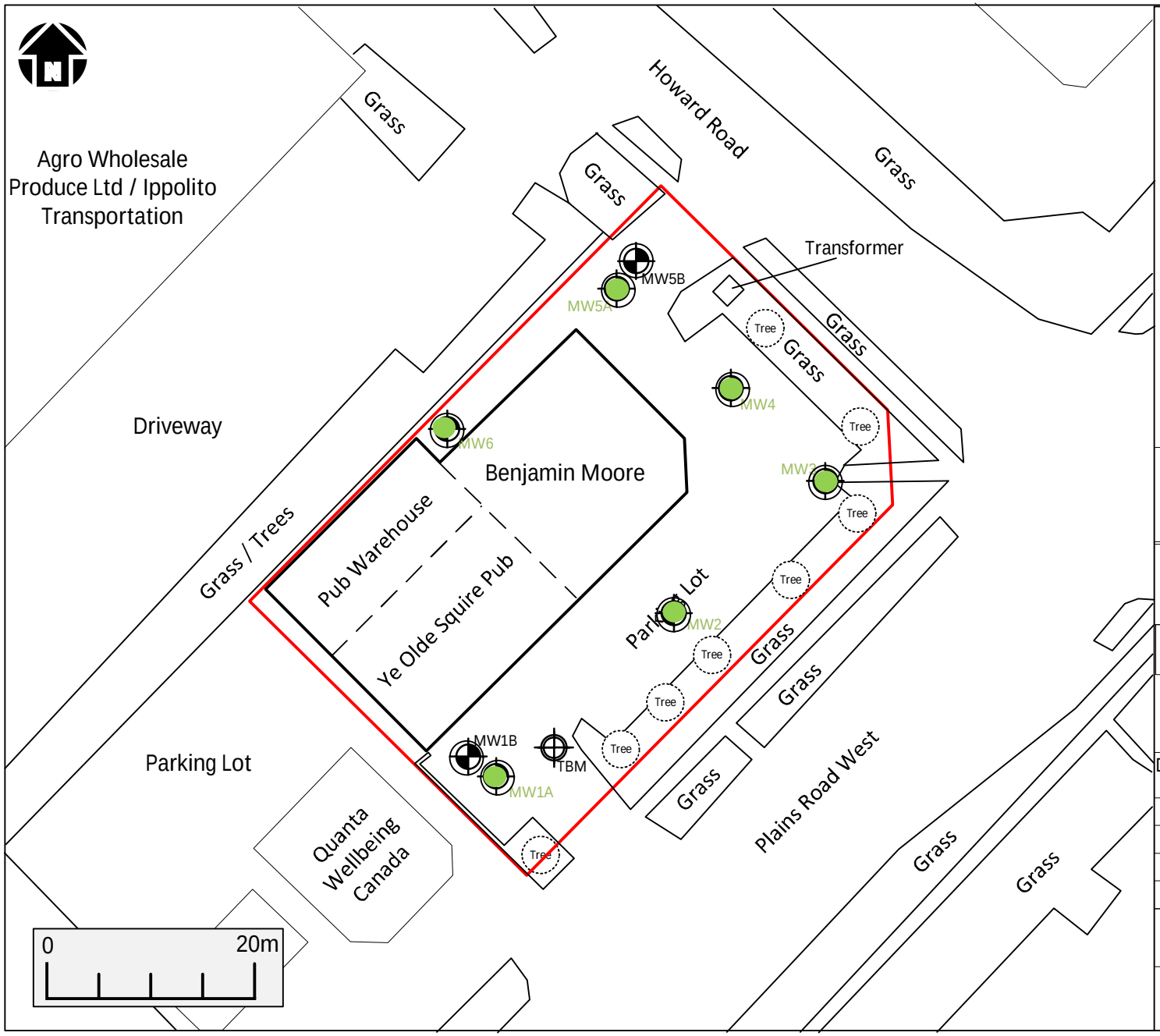
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Soil Sampling Results – PHCs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3C



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

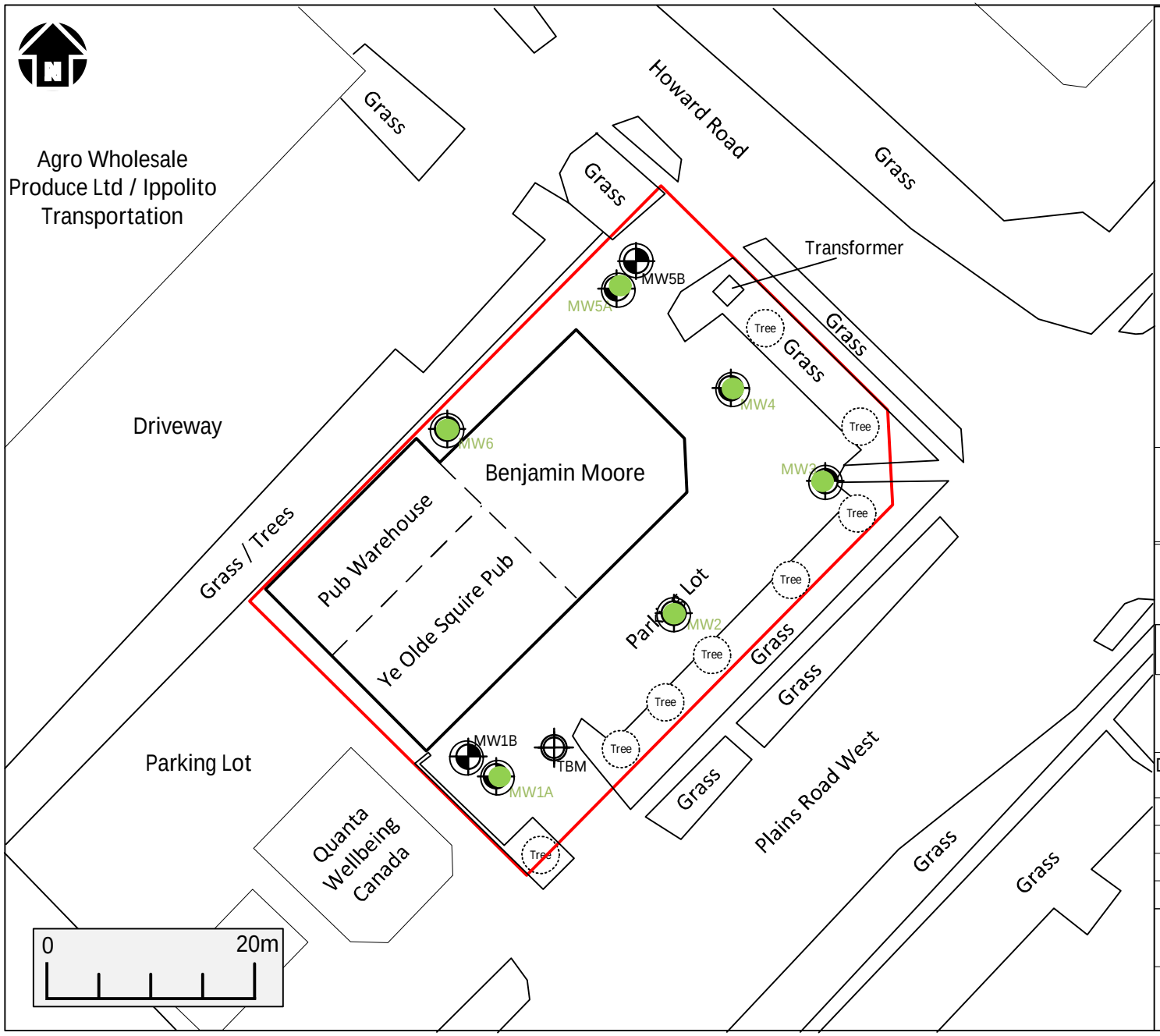
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Soil Sampling Results – BTEX
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3D



LEGEND

= Site Boundary
= APEC #1
= APEC #2
= APEC #3
= APEC #4
= APEC #5
= APEC #6
= APEC #7
= Borehole/ Monitoring Well Location BH/MW#
TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
= Soil Samples that meet Applicable Table 3 SCSs
= Soil Samples that Exceed Applicable Table 3 SCSs

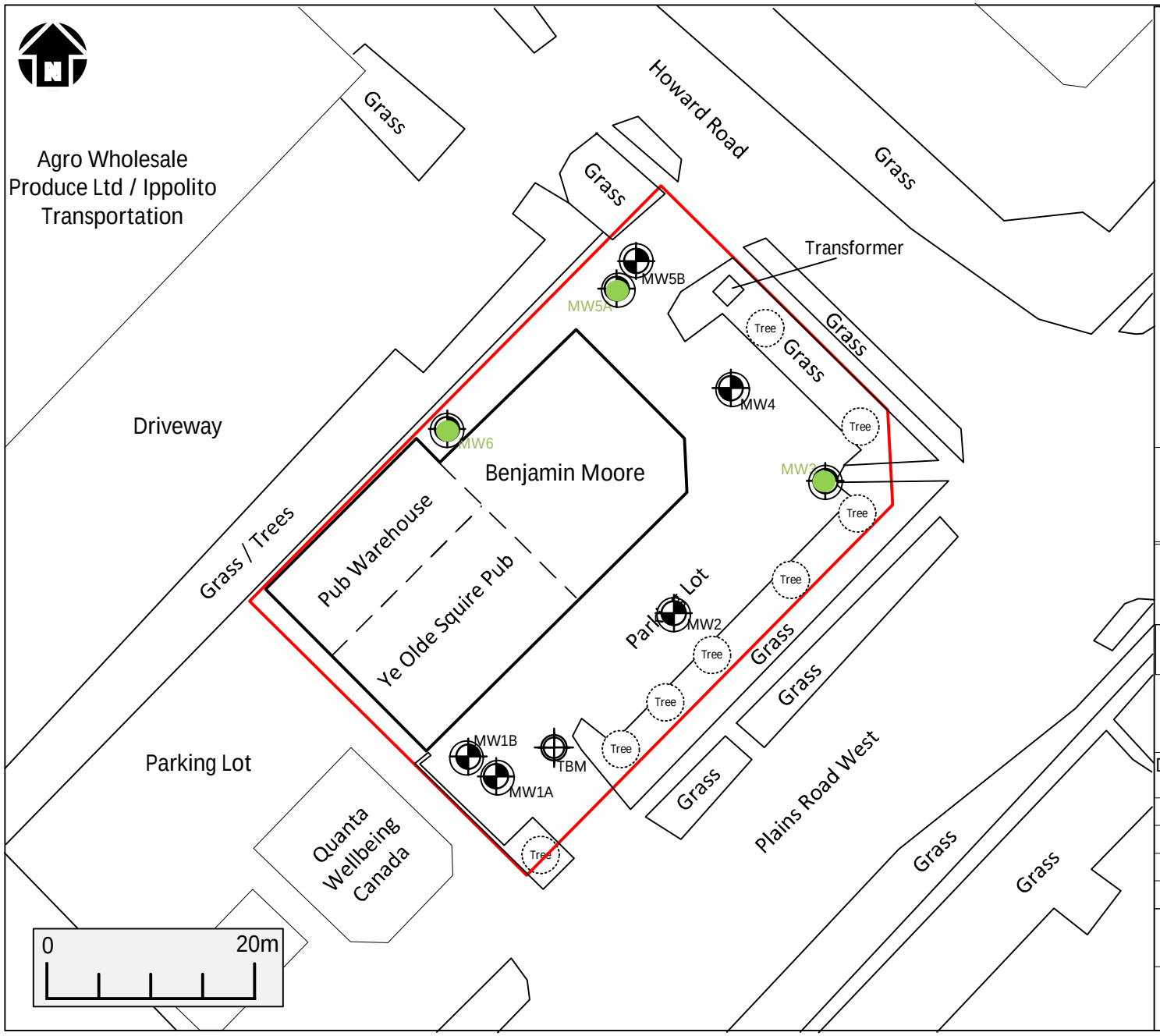
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Soil Sampling Results – PAHs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3E



LEGEND

= Site Boundary
= APEC #1
= APEC #2
= APEC #3
= APEC #4
= APEC #5
= APEC #6
= APEC #7
= Borehole/ Monitoring Well Location BH/MW#
TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
= Soil Samples that meet Applicable Table 3 SCSs
= Soil Samples that Exceed Applicable Table 3 SCSs

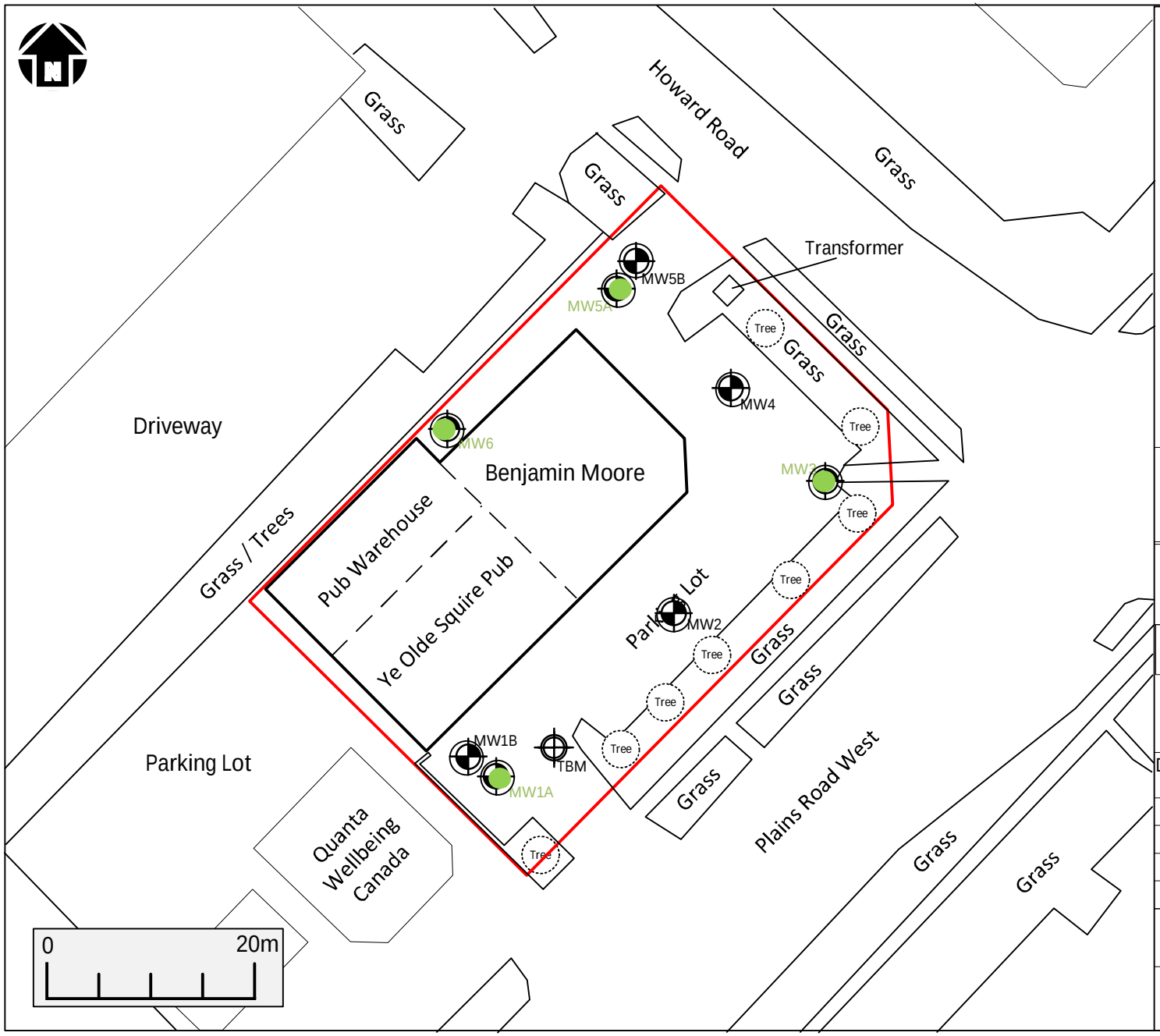
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Soil Sampling Results – PCBs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3F



LEGEND

= Site Boundary
= APEC #1
= APEC #2
= APEC #3
= APEC #4
= APEC #5
= APEC #6
= APEC #7
= Borehole/ Monitoring Well Location BH/MW#
TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
= Soil Samples that meet Applicable Table 3 SCSs
= Soil Samples that Exceed Applicable Table 3 SCSs

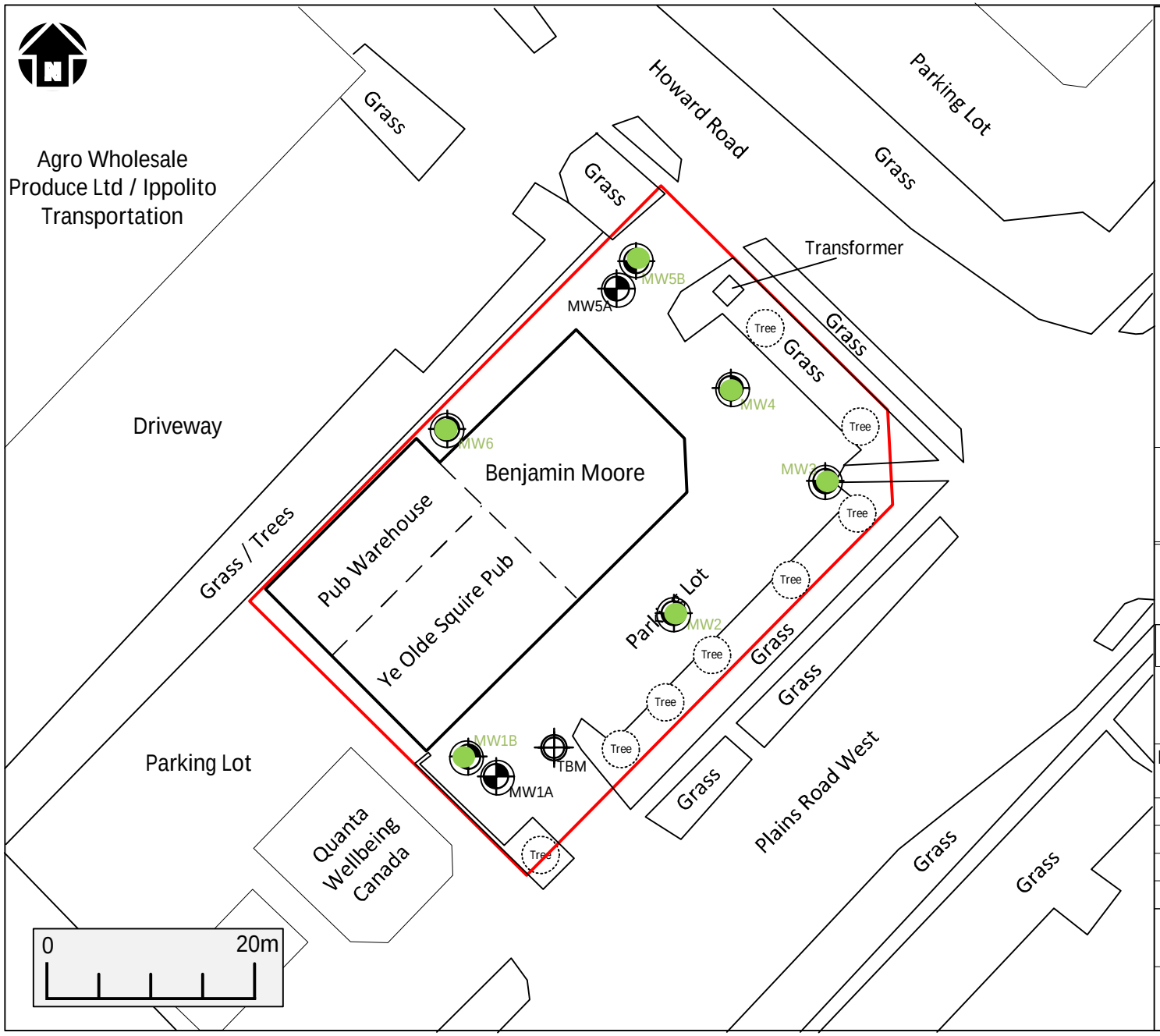
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Soil Sampling Results – VOCs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 3G



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

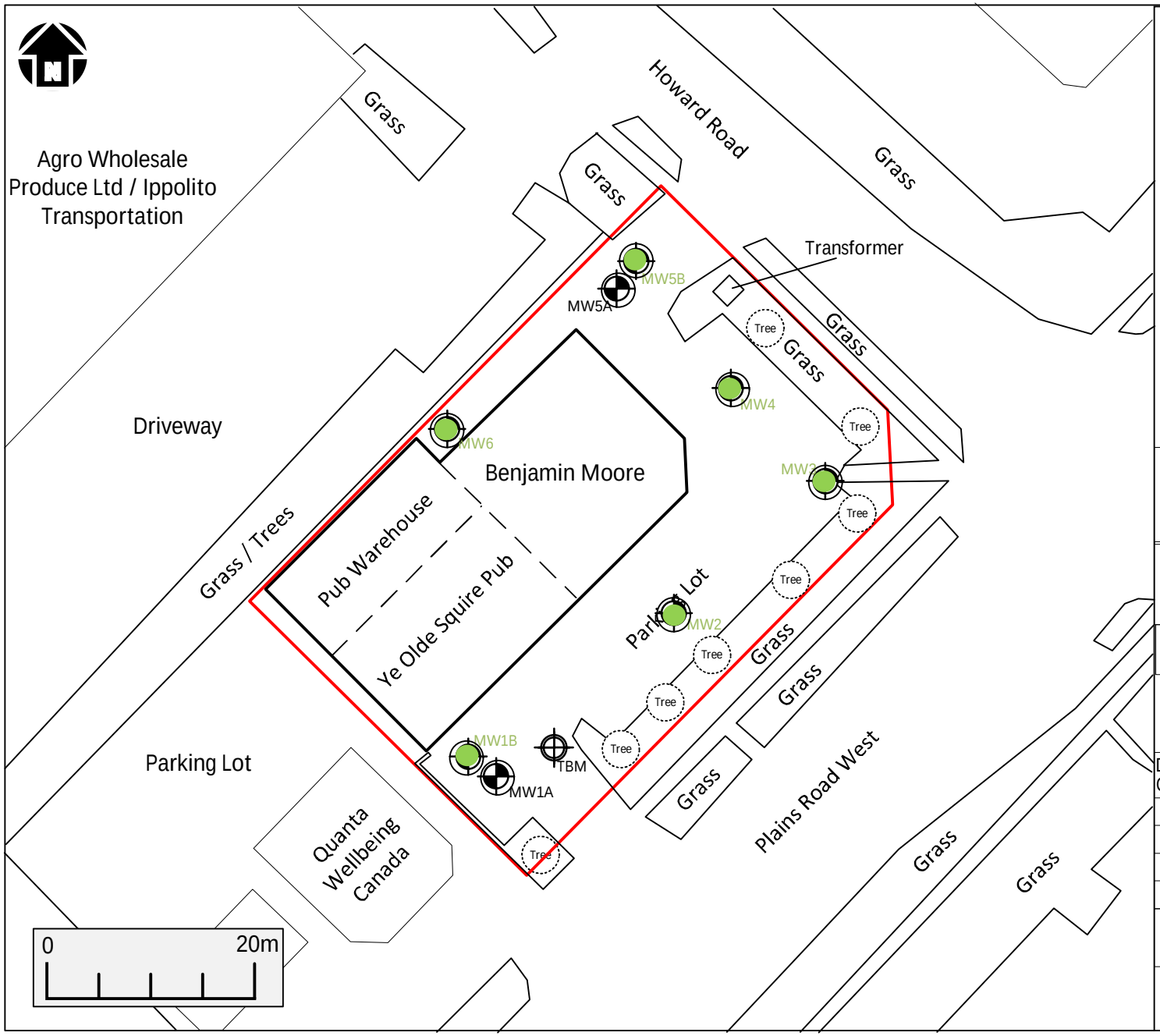
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Groundwater Sampling Results – Metals & Inorganics
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 4A



LEGEND

= Site Boundary
= APEC #1
= APEC #2
= APEC #3
= APEC #4
= APEC #5
= APEC #6
= APEC #7
= Borehole/ Monitoring Well Location BH/MW#
TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
= Soil Samples that meet Applicable Table 3 SCSs
= Soil Samples that Exceed Applicable Table 3 SCSs

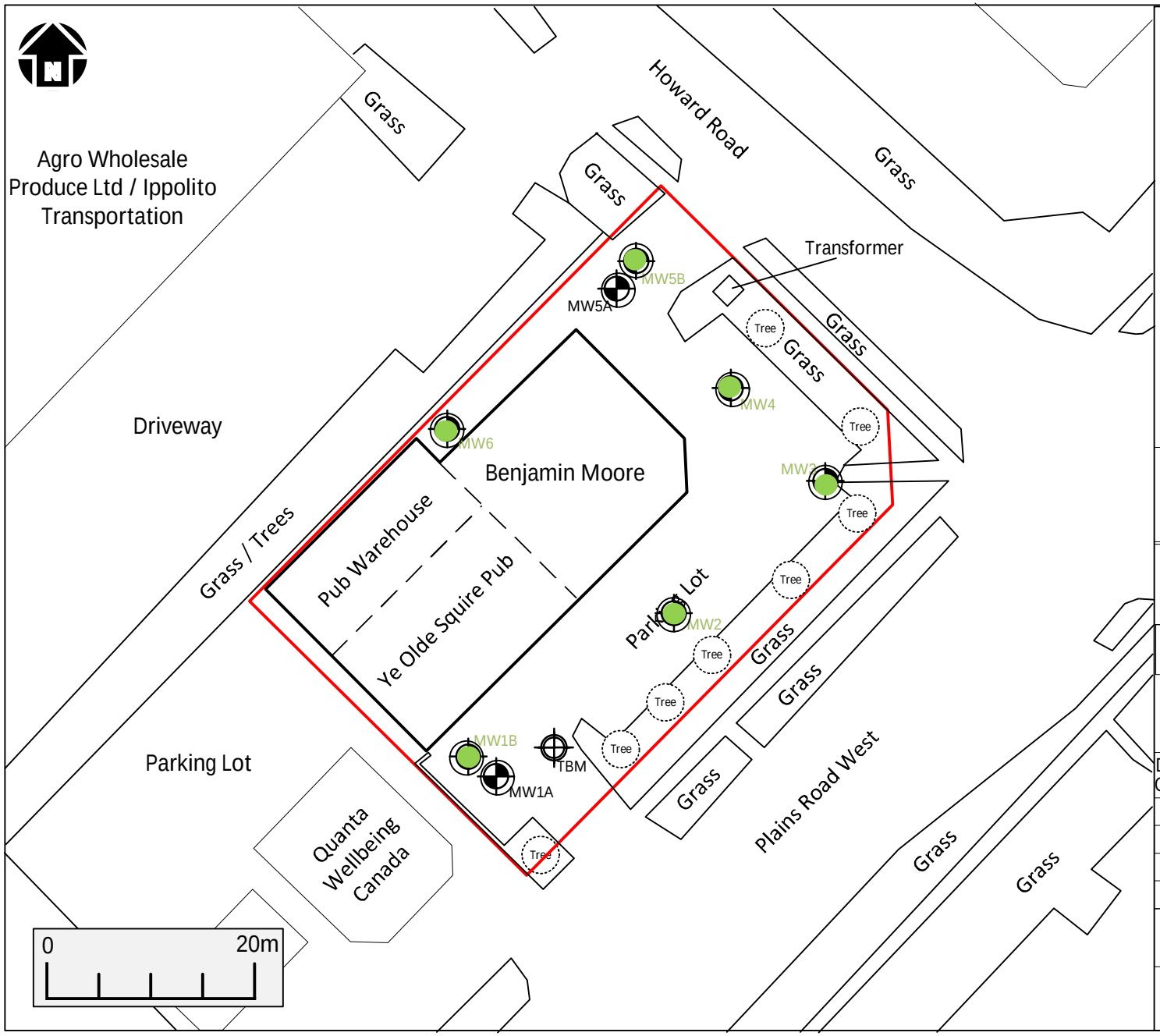
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Groundwater Sampling Results – PHCs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 4B



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

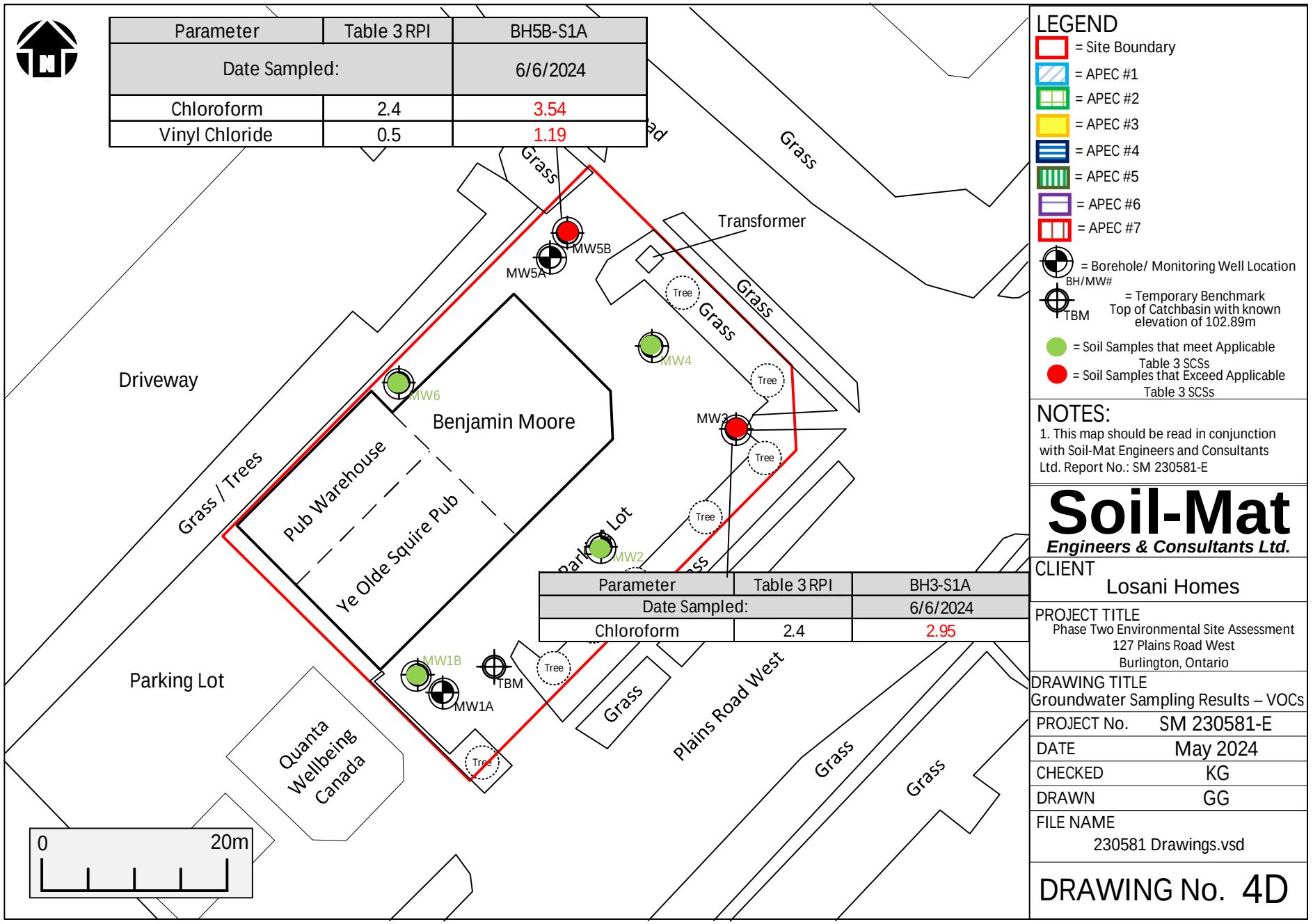
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Groundwater Sampling Results – BTEX
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 4C



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT: Losani Homes

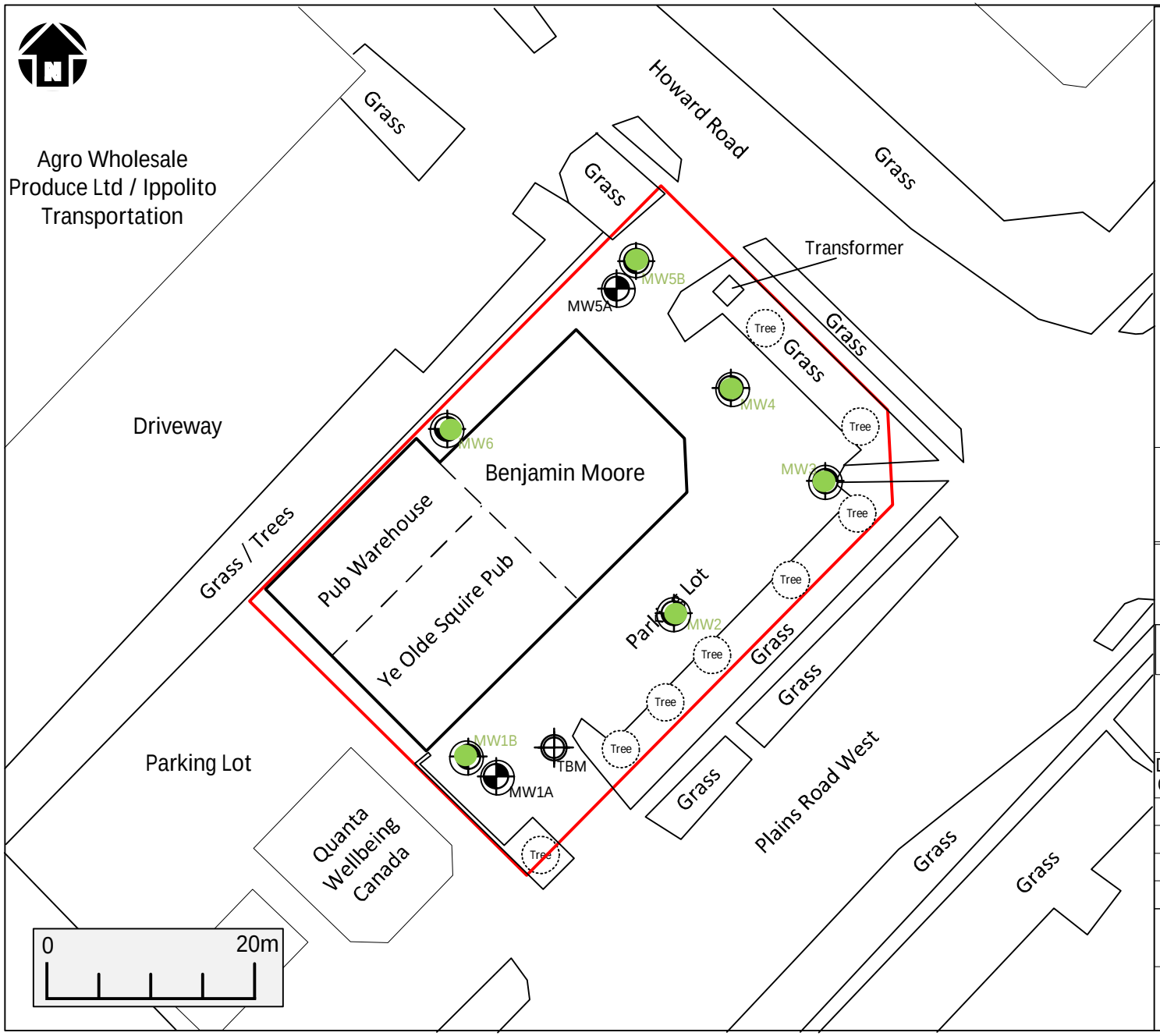
PROJECT TITLE: Phase Two Environmental Site Assessment
127 Plains Road West
Burlington, Ontario

DRAWING TITLE: Groundwater Sampling Results – VOCs

PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG

FILE NAME: 230581 Drawings.vsd

DRAWING No. 4D



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

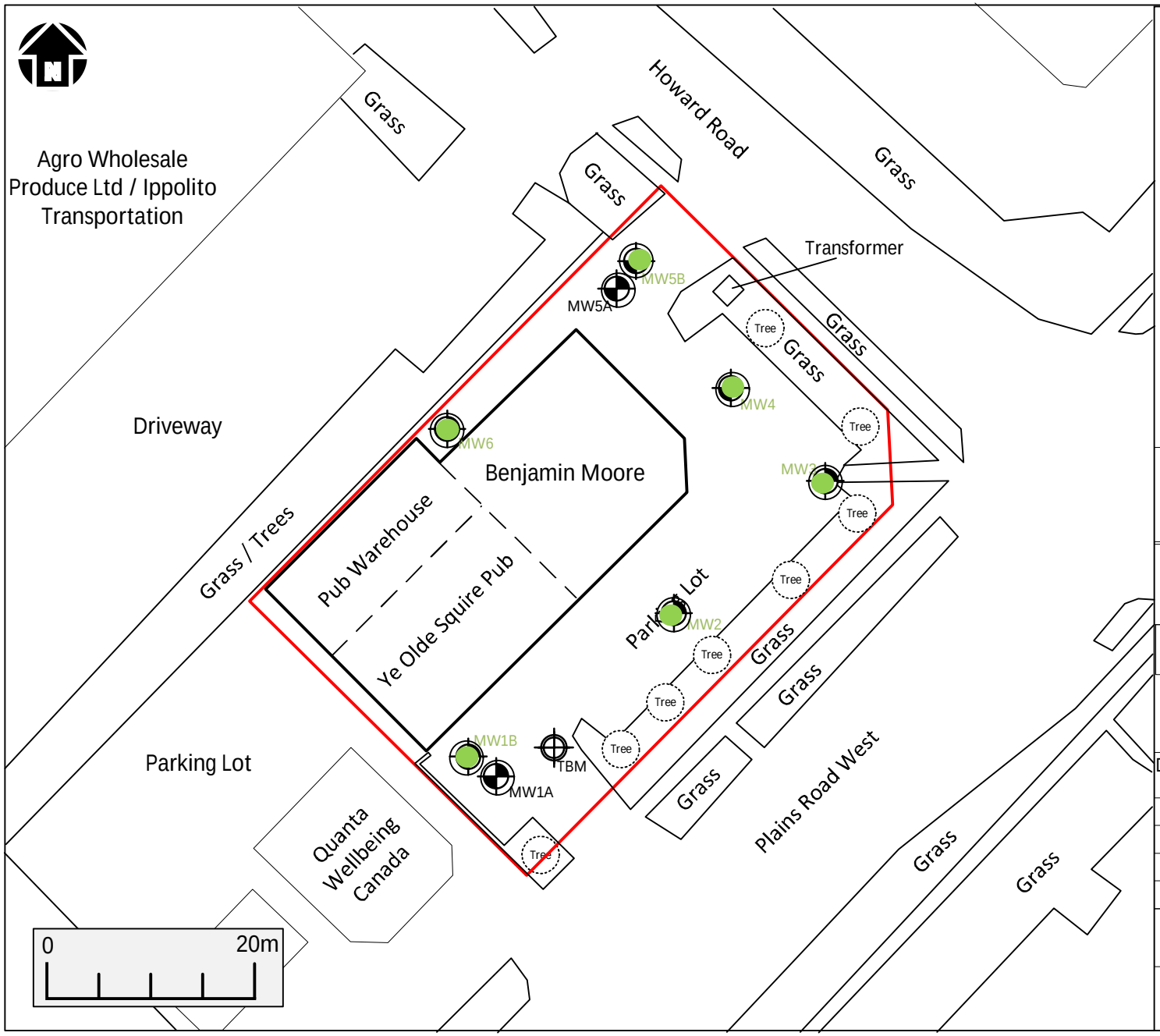
NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Groundwater Sampling Results – PAHs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

DRAWING No. 4E



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7
- = Borehole/ Monitoring Well Location BH/MW#
- TBM = Temporary Benchmark Top of Catchbasin with known elevation of 102.89m
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that Exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230581-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	Losani Homes
PROJECT TITLE	Phase Two Environmental Site Assessment 127 Plains Road West Burlington, Ontario
DRAWING TITLE	Groundwater Sampling Results – PCBs
PROJECT No.	SM 230581-E
DATE	May 2024
CHECKED	KG
DRAWN	GG
FILE NAME	230581 Drawings.vsd

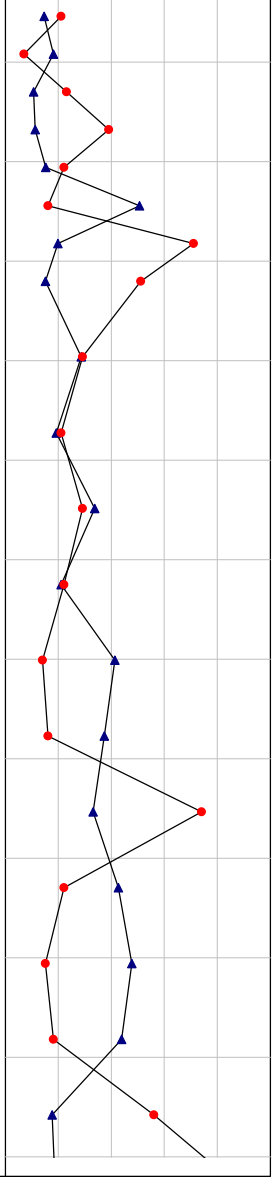
DRAWING No. 4F

Log of Borehole No. 1A

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795146
E: 592661

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	103.07	Ground Surface							
0 / 0	102.50	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.							
6 / 2	100.90	**Sand Fill** Brown, trace to some silt and gravel, compact to loose.	SS	1	8,12,9,6	21			
			SS	2	4,4,3,3	7			
			SS	3	6,8,15,29	23			
10 / 3			SS	4	12,14,25,25	39			
14 / 4	98.60	**Sand and Gravel** Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, compact to very dense.	SS	5	5,10,12,15	22			
16 / 5			SS	6	2,3,13,25	16		1.5	
20 / 6			SS	7	20,33,38,35	71			
			SS	8	19,27,24,26	51			
23 / 7		Seam of reddish brown silty clay							
			SS	9	7,13,16,34	29			
30 / 9			SS	10	13,11,10,9	21			
33 / 10	92.90	**Sand** Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to very dense.							
36 / 11			SS	11	12,12,17,16	29			
40 / 12			SS	12	11,9,13,18	22			
43 / 13									
46 / 14			SS	13	3,6,8,17 Wet spoon	14			
49 / 15			SS	14	6,7,9,5 Wet spoon	16			
53 / 16									
56 / 17			SS	15	18,36,38,37	74			
59 / 18	85.20	**Silty Clay/Clayey Silt** Grey, trace gravel in the upper levels, stiff to very stiff.							
62 / 19			SS	16	6,10,12,14	22		2.0	
66 / 20			SS	17	5,7,8,10	15		1.0	
69 / 21									
72 / 22	80.70		SS	18	3,8,10,28	18		3.0	
76 / 23			SS	19	14,27,29,20	56			
79 / 24									



Drill Method: Hollow Stem Augers
Drill Date: April 29, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 1 of 2

Log of Borehole No. 1A

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795146
E: 592661

Depth	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
25		**Sandy and Silty Gravel** Red to reddish grey, high gravel content in the upper levels, trace clay increasing with depth, very dense.		SS	20	18,31,59,41	90			
26				SS	21	27,50/5"	100			
27	75.60			SS	22	50/2"	100			
28		**Queenston Shale** Highly weathered in upper levels resembling a cohesive soil, becoming more sound with depth, hard.		HQ	1	RQD = 82%				
29				HQ	2	RQD = 89%				
30				HQ	3	RQD = 90%				
31	71.00									
32		End of Borehole								
33		NOTES:								
34		1. Borehole was advanced using hollow stem auger equipment on April 29, 2024 to termination at a depth of 27.5 metres. Bedrock was cored to a depth of 32.1 metres.								
35		2. Soil samples will be discarded after 3 months unless otherwise directed by our client.								
36		3. A monitoring well was installed. The following free groundwater level readings have been measured: May 3, 2024 - 14.8 metres May 30, 2024 - 15.2 metres								
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										

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

Compressive Strength 55.7 MPa
Compressive Strength 58.5 MPa
Compressive Strength 56.5 MPa
Compressive Strength 63.9 MPa

Drill Method: Hollow Stem Augers
Drill Date: April 29, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 2 of 2

Log of Borehole No. 1B

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795147
E: 592660

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	SAMPLE PP (kgf/cm2)	SAMPLE U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
0 / 0	103.08	Ground Surface									
0 / 0	102.50	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.									
6 / 2	100.90	**Sand Fill** Brown, trace to some silt and gravel, compact to loose.									
14 / 4	98.60	**Sand and Gravel** Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, compact to very dense. Seam of reddish brown silty clay									
33 / 10	92.90	**Sand** Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to very dense.									
50 / 15	87.80	End of Borehole									

Note: Soil stratums inferred from BH1A

NOTES:

1. Borehole was advanced using hollow stem auger equipment on April 30, 2024 to termination at a depth of 15.2 metres.

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

3. A monitoring well was installed. The following free groundwater level readings have been measured:
May 3, 2024 - 13.2 metres
May 30, 2024 - 13.2 metres

Drill Method: Hollow Stem Augers
Drill Date: April 30, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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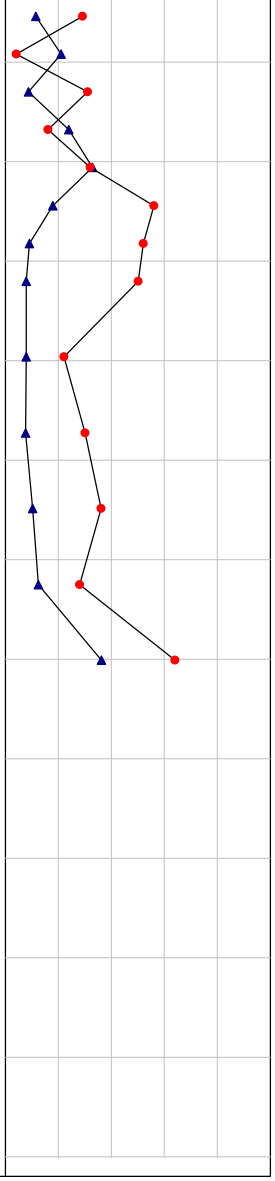
Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 2

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795158
E: 592674

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	103.12	Ground Surface							
0 / 0	102.50	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.							
1 / 3		**Sand and Gravel Fill** Brown, varying gravel content throughout, occasional clayey seams in the lower levels, trace to some silt, occasional cobbles, loose to dense.	SS	1	8,18,11,8	29			
2 / 6			SS	2	3,2,2,1	4			
3 / 9			SS	3	14,17,14,12	31			
4 / 12			SS	4	9,10,6,6	16			
4 / 14	98.40		SS	5	1,8,24,20	32			
5 / 16		**Sand and Gravel** Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, compact to very dense.	SS	6	6,20,36,38	56			
6 / 19			SS	7	6,32,20,18	52			
7 / 22			SS	8	10,24,26,29	50			
8 / 25			SS	9	6,11,11,10	22			
9 / 28			SS	10	12,16,14,10	30			
10 / 32	92.90								
11 / 35		**Sand** Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to very dense.	SS	11	12,18,18,18	36			
12 / 38			SS	12	12,12,16,12	28			
13 / 41			SS	13	16,30,34,36 Wet spoon	64			
14 / 44									
15 / 48	87.90								
15 / 50		End of Borehole							
16 / 51		NOTES: 1. Borehole was advanced using hollow stem auger equipment on May 7, 2024 to termination at a depth of 15.2 metres. 2. Soil samples will be discarded after 3 months unless otherwise directed by our client. 3. A monitoring well was installed. The following free groundwater level readings have been measured: May 7, 2024 - 13.1 metres May 30, 2024 - 13.1 metres							
17 / 54									
18 / 57									
19 / 60									
20 / 63									
21 / 67									
22 / 70									
23 / 73									
24 / 76									



Drill Method: Hollow Stem Augers
Drill Date: May 7, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 3

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795179
E: 592693

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	103.15	Ground Surface							
0 / 0	102.60	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.							
		Sand and Gravel Fill Brown, varying gravel content throughout, occasional clayey seams in the lower levels, trace to some silt, occasional cobbles, very loose to loose.	SS	1	2,5,2,2	7			
			SS	2	2,3,2,16	5			
			SS	3	8,3,4,4	7			
			SS	4	5,4,6,7	10			
13 / 4	99.00		SS	5	1,1,2,9	3			
			SS	6	9,23,29,35	52			
		Sand and Gravel Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, very dense to compact.	SS	7	17,20,26,23	46			
			SS	8	15,19,23,21	42			
33 / 10	92.90		SS	9	8,11,9,11	20			
		Sand Brown, trace to some silt and gravel, dense to compact.	SS	10	17,20,16,17	36			
			SS	11	9,10,11,10	21			
			SS	12	9,10,15,27 Wet spoon	25			
51 / 16	87.30		SS	13	7,8,9,14 Wet spoon	17			
		End of Borehole							

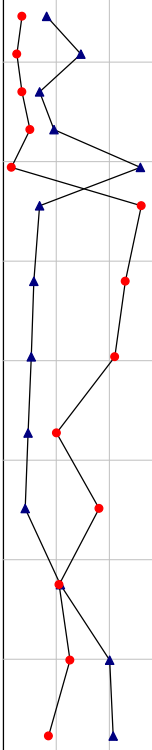
NOTES:

1. Borehole was advanced using hollow stem auger equipment on May 7, 2024 to termination at a depth of 15.9 metres.

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

3. A monitoring well was installed. The following free groundwater level readings have been measured:
May 7, 2024 - 12.9 metres
May 30, 2024 - 12.9 metres

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



Drill Method: Hollow Stem Augers
Drill Date: May 6, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 4

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795187
E: 592682

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	103.26	Ground Surface							
0 / 0	102.80	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 300 millimetres of compact granular base.							
6 / 2	100.70	**Sand and Gravel Fill** Brown, varying gravel content throughout, trace to some silt, occasional cobbles, loose to compact	SS	1	4,7,6,3	13			
			SS	2	4,3,3,1	6			
			SS	3	1,3,3,2	6			
			SS	4	5,7,10,12	17			
13 / 4	99.20		SS	5	11,14,12,12	26			
			SS	6	1,1,0,1	1		<1.0	
16 / 5	97.70	**Sand and Gravel** Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, compact to very dense.	SS	7	1,1,1,1 Wet spoon	2		<1.0	
20 / 6			SS	8	7,17,13,15	30			
26 / 8		**Silty Clay/Clayey Silt** Reddish brown, trace to some sand, very soft.	SS	9	16,20,16,15	36			
33 / 10		**Sand** Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to dense.	SS	10	24,18,16,14	34			
36 / 11			SS	11	10,12,12,16	24			
43 / 13			SS	12	8,11,11,16	22			
46 / 14			SS	13	7,18,11,11 Wet spoon	29			
51 / 16	87.40	End of Borehole	SS	14	2,6,17,24 Wet spoon	23			

NOTES:

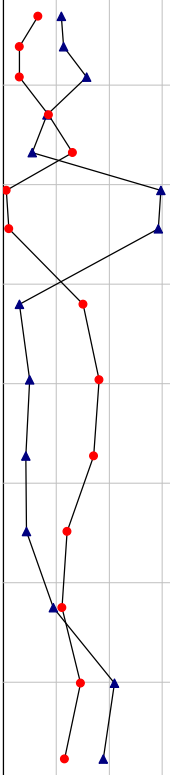
1. Borehole was advanced using hollow stem auger equipment on May 7, 2024 to termination at a depth of 15.8 metres.

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

3. A monitoring well was installed. The following free groundwater level readings have been measured:
May 30, 2024 - 13.0 metres

Moisture Content w% (10 20 30 40)

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



Drill Method: Hollow Stem Augers
Drill Date: May 7, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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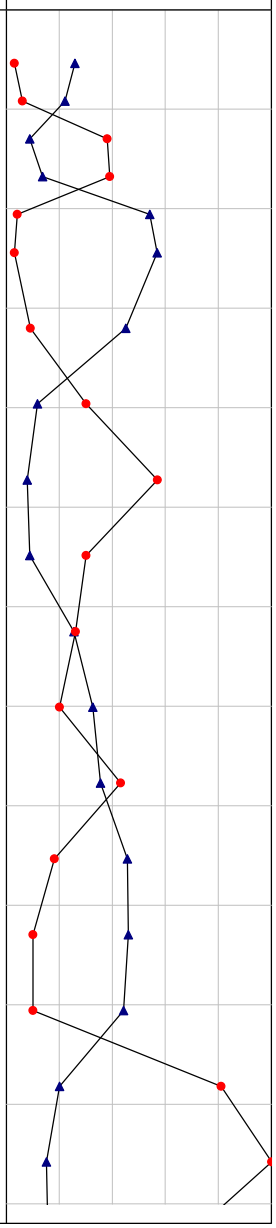
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Field Logged by: BS
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 5A

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795199
E: 592669

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	103.19	Ground Surface							
0 / 0	102.60	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.							
6 / 2	101.00	**Sand Fill** Brown, trace to some silt and gravel, very loose to loose.	SS	1	1,2,1,1	3			
			SS	2	2,2,4,10	6			
			SS	3	9,18,20,27	38			
12 / 3	99.30	**Sand and Gravel** Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, dense.	SS	4	16,19,20,18	39			
			SS	5	4,2,2,2	4		<1.0	
			SS	6	2,1,2,2	3		<1.0	
23 / 7	96.00	**Silty Clay/Clayey Silt** Reddish brown, trace sand increasing with depth, soft to firm.	SS	7	2,4,5,9	9		1.0	
		Sand and Gravel Brown, varying gravel content throughout, trace silt, occasionl to moderate cobbles, dense to very dense.	SS	8	9,15,15,19	30			
			SS	9	9,35,22,25	57			
33 / 10	93.00		SS	10	10,14,16,21	30			
		Sand Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to very dense.	SS	11	10,12,14,14	26			
			SS	12	6,10,10,12	20			
			SS	13	7,14,29,39	43			
53 / 16	86.80	**Silty Clay/Clayey Silt** Grey, trace gravel in the upper levels, very stiff to stiff.	SS	14	4,8,10,13	18		3.0	
			SS	15	3,4,6,6	10		<1.0	
			SS	16	4,4,6,8	10		<1.0	
68 / 21	82.30	**Sandy and Silty Gravel** Red to reddish grey, high gravel content in the upper levels, trace clay increasing with depth, very dense.	SS	17	35,41,40,42	81			
			SS	18	65,50/4"	100			
79 / 24									



Drill Method: Hollow Stem Augers
Drill Date: May 2, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 1 of 2

Log of Borehole No. 5A

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795199
E: 592669

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
25	77.60				SS	19	44,31,37,50/5	68				
					SS	20	50/4"	100				
26			**Queenston Shale** Highly weathered in upper levels resembling a cohesive soil, becoming more sound with depth, hard.		HQ	1	RQD = 0%					
27					HQ	2	RQD = 86%					Compressive Strength 58.4 MPa Compressive Strength 80.5 MPa
28					HQ	3	RQD = 76%					Compressive Strength 57.5 MPa
29					HQ	4	RQD = 95%					Compressive Strength 47.5 MPa
30	72.60											
31			End of Borehole NOTES: 1. Borehole was advanced using hollow stem auger equipment on May 2, 2024 to termination at a depth of 25.6 metres. Bedrock was cored to a depth of 30.6 metres. 2. Soil samples will be discarded after 3 months unless otherwise directed by our client. 3. A monitoring well was installed. The following free groundwater level readings have been measured: May 7, 2024 - 14.2 metres May 30, 2024 - 15.2 metres									
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												

Drill Method: Hollow Stem Augers
Drill Date: May 2, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
401 Grays Road · Hamilton, Ontario · L8E 2Z3
T: 905.318.7440 · TF: 800.243.1922 · F: 905.318.7455
www.soil-mat.ca · E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 2 of 2

Log of Borehole No. 5B

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795200
E: 592670

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE: Type	SAMPLE: Number	SAMPLE: Blow Counts	SAMPLE: Blows/300mm	SAMPLE: Recovery	SAMPLE: PP (kgf/cm2)	SAMPLE: U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
0 ft / 0 m	103.23	Ground Surface									
0 ft / 0 m	102.70	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.									
6 ft / 2 m	101.00	**Sand Fill** Brown, trace to some silt and gravel, very loose to loose.									
10 ft / 3 m	99.30	**Sand and Gravel** Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, dense.									
23 ft / 7 m	96.00	**Silty Clay/Clayey Silt** Reddish brown, trace sand increasing with depth, soft to firm.									
26 ft / 8 m		**Sand and Gravel** Brown, varying gravel content throughout, trace silt, occasionl to moderate cobbles, dense to very dense.									
33 ft / 10 m	93.00	**Sand** Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to very dense.									
46 ft / 14 m	89.20	End of Borehole									

Note: Soil stratums inferred from BH5A

NOTES:

1. Borehole was advanced using solid stem auger equipment on May 3, 2024 to termination at a depth of 14.0 metres.

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

3. A monitoring well was installed. The following free groundwater level readings have been measured:
May 7, 2024 - 12.8 metres
May 30, 2024 - 13.2 metres

Drill Method: Hollow Stem Augers
Drill Date: May 2, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic
Field Logged by: BS
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 6

Project No: SM 230581-G
Project: Proposed 26-Storey Building
Location: 127 Plains Rd. W, Burlington
Client: Losani Homes

Project Manager: Adam Roemmele, P. Eng.
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4795181
E: 592653

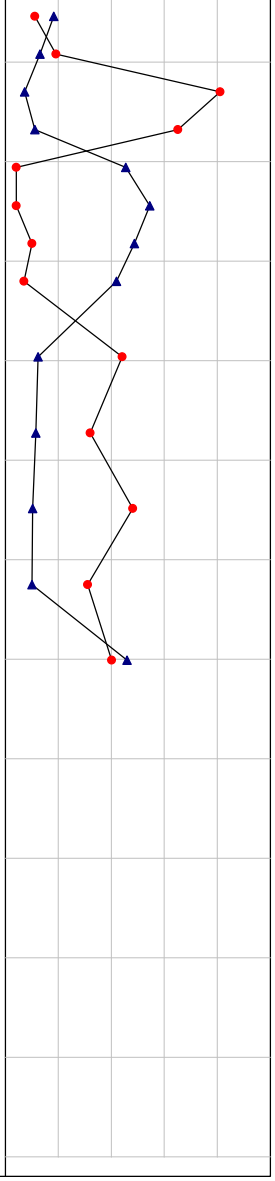
Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	103.31	Ground Surface							
0 / 0	102.70	**Pavement Structure** Approximately 125 millimetres of asphaltic concrete overlying 450 millimetres of compact granular base.							
6 / 2	101.10	**Sand and Gravel Fill** Brown, varying gravel content throughout, trace to some silt, occasional to moderate cobbles, compact.	SS	1	6,6,5,2	11			
			SS	2	5,7,12,15	19			
			SS	3	18,46,35,63	81			
			SS	4	16,30,35,21	65			
13 / 4	99.20		SS	5	3,3,1,3	4		<1.0	
		Sand and Gravel Brown, varying gravel content throughout, trace silt and clay, occasional to frequent cobbles, compact to very dense.	SS	6	1,2,2,2	4		<1.0	
			SS	7	0,5,5,7	10		1.5	
23 / 7	96.20		SS	8	2,3,4,7	7		1.5	
		Silty Clay/Clayey Silt Reddish brown, trace to some sand, very soft.	SS	9	9,20,24,33	44			
33 / 10	93.10	**Sand and Gravel** Brown, varying gravel content throughout, trace silt, occasional cobbles, dense.	SS	10	7,14,18,22	32			
			SS	11	31,26,22,21	48			
		Sand Brown, trace to some silt and gravel, with silty layers in the lower levels, compact to dense.	SS	12	9,14,17,20	31			
			SS	13	5,27,13,13 Wet spoon	40			
49 / 15	88.10	End of Borehole							

NOTES:

1. Borehole was advanced using hollow stem auger equipment on May 1, 2024 to termination at a depth of 15.2 metres.

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

3. A monitoring well was installed. The following free groundwater level readings have been measured:
May 30, 2024 - 13.1 metres



Drill Method: Hollow Stem Augers
Drill Date: May 1, 2024
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
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Datum: Geodetic
Field Logged by: BS
Checked by: AR
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
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Bennett Sabourin

PROJECT: SM 230581-G

AGAT WORK ORDER: 24T148587

SOIL ANALYSIS REVIEWED BY: Sukhwinder Randhawa, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: May 14, 2024

PAGES (INCLUDING COVER): 23

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 after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- 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.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

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Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

		SAMPLE DESCRIPTION:		BH2 SS5	BH2 SS11	BH2 SS13	BH3 SS2	BH3 SS8	BH3 SS12	BH4 SS2	BH4 SS9
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-05-07	2024-05-07	2024-05-07	2024-05-06	2024-05-06	2024-05-06	2024-05-07	2024-05-07
Parameter	Unit	G / S	RDL	5847209	5847211	5847212	5847213	5847216	5847217	5847218	5847219
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	4	2	3	6	5	3	3	5
Barium	µg/g	390	2.0	140	35.4	42.5	40.6	146	121	68.4	115
Beryllium	µg/g	4	0.5	0.6	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
Boron	µg/g	120	5	15	<5	6	8	6	10	<5	7
Boron (Hot Water Soluble)	µg/g	1.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	18	5	7	14	11	11	9	11
Cobalt	µg/g	22	0.8	10.0	2.7	3.8	7.3	5.6	5.8	3.9	6.8
Copper	µg/g	140	1.0	24.6	11.9	17.5	37.4	41.8	21.1	16.4	52.0
Lead	µg/g	120	1	9	4	5	9	7	6	15	9
Molybdenum	µg/g	6.9	0.5	0.6	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.6
Nickel	µg/g	100	1	20	5	6	18	11	13	8	14
Selenium	µg/g	2.4	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium	µg/g	86	2.0	24.1	8.3	12.2	20.9	16.2	15.6	14.5	16.2
Zinc	µg/g	340	5	64	14	18	38	33	29	40	41
Chromium, Hexavalent	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	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	0.7	0.005	0.222	0.173	0.237	**0.923**	0.204	0.383	0.458	0.299
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.888	0.994	0.934	**6.60**	2.63	1.67	**5.62**	2.70
pH, 2:1 CaCl2 Extraction	pH Units	5.0-9.0	NA	7.33	7.44	7.46	7.38	7.37	7.41	7.41	7.44

Certified By:



Results relate only to the items tested. Results apply to samples as received.

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: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08

DATE REPORTED: 2024-05-14

		SAMPLE DESCRIPTION:		BH4 SS13	DUPE 2
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2024-05-07	2024-05-07
Parameter	Unit	G / S	RDL	5847220	5847221
Antimony	µg/g	7.5	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	3	3
Barium	µg/g	390	2.0	39.4	47.1
Beryllium	µg/g	4	0.5	<0.5	<0.5
Boron	µg/g	120	5	5	7
Boron (Hot Water Soluble)	µg/g	1.5	0.10	<0.10	<0.10
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	160	5	6	8
Cobalt	µg/g	22	0.8	4.0	3.7
Copper	µg/g	140	1.0	17.2	16.0
Lead	µg/g	120	1	5	4
Molybdenum	µg/g	6.9	0.5	<0.5	<0.5
Nickel	µg/g	100	1	7	6
Selenium	µg/g	2.4	0.8	<0.8	<0.8
Silver	µg/g	20	0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	<0.50	<0.50
Vanadium	µg/g	86	2.0	9.9	14.0
Zinc	µg/g	340	5	20	18
Chromium, Hexavalent	µg/g	8	0.2	<0.2	<0.2
Cyanide, WAD	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	0.7	0.005	0.209	0.161
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	1.35	1.11
pH, 2:1 CaCl2 Extraction	pH Units	5.0-9.0	NA	7.46	7.49

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5847209-5847221 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:



Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

		SAMPLE DESCRIPTION:		BH2 SS5	BH2 SS11	BH2 SS13	BH3 SS2	BH3 SS8	BH3 SS12	BH4 SS2	BH4 SS9
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-05-07	2024-05-07	2024-05-07	2024-05-06	2024-05-06	2024-05-06	2024-05-07	2024-05-07
Parameter	**Unit**	**G / S**	**RDL**	**5847209**	**5847211**	**5847212**	**5847213**	**5847216**	**5847217**	**5847218**	**5847219**
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	7.8	5.5	14.2	13.6	4.7	15.8	12.5	5.0
Surrogate	**Unit**	**Acceptable Limits**									
Naphthalene-d8	%	50-140		70	85	70	70	65	80	90	70
Acridine-d9	%	50-140		110	105	90	95	70	85	85	85
Terphenyl-d14	%	50-140		95	120	85	65	100	100	105	85

Certified By: NPopnikolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

		SAMPLE DESCRIPTION:		BH4 SS13	DUPE 2
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2024-05-07	2024-05-07
Parameter	Unit	G / S	RDL	5847220	5847221
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05
Moisture Content	%		0.1	15.8	6.0
Surrogate	**Unit**	**Acceptable Limits**			
Naphthalene-d8	%	50-140		70	70
Acridine-d9	%	50-140		70	85
Terphenyl-d14	%	50-140		80	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5847209-5847221 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS8	BH3 SS12
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-05-06	2024-05-06	2024-05-06
Parameter	**Unit**	**G / S**	**RDL**	**5847213**	**5847216**	**5847217**
Polychlorinated Biphenyls	µg/g	0.35	0.1	<0.1	<0.1	<0.1
Moisture Content	%		0.1	13.6	4.7	15.8
Surrogate	**Unit**	**Acceptable Limits**				
Decachlorobiphenyl	%	50-140		76	100	88

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5847213-5847217 Results are based on the dry weight of soil extracted.
PCB total is a calculated parameter. The calculated value is the sum of Aroclor 1242, Aroclor 1248, Aroclor 1254 and Aroclor 1260.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

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Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2024-05-08

DATE REPORTED: 2024-05-14

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS8	BH3 SS12
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-05-06	2024-05-06	2024-05-06
Parameter	**Unit**	**G / S**	**RDL**	**5847213**	**5847216**	**5847217**
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA
Moisture Content	%		0.1	13.6	4.7	15.8
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	%	50-140		126	125	121
Terphenyl	%	60-140		66	70	80

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5847213-5847217 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 calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
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 and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

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AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

		SAMPLE DESCRIPTION:		BH2 SS5	BH2 SS11	BH2 SS13	BH4 SS2	BH4 SS9	BH4 SS13	DUPE 2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07
Parameter	**Unit**	**G / S**	**RDL**	**5847209**	**5847211**	**5847212**	**5847218**	**5847219**	**5847220**	**5847221**
Benzene	µg/g	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	3.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	<50	<50	<50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	2800	50	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	7.8	5.5	14.2	12.5	5.0	15.8	6.0
Surrogate	**Unit**	**Acceptable Limits**								
Toluene-d8	% Recovery	60-140		82	81	84	74	82	80	82
Terphenyl	%	60-140		75	84	86	76	94	91	118

Certified By:

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AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08 **DATE REPORTED: 2024-05-14**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5847209-5847221 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
Xylenes total 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 calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
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 and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

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AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08

DATE REPORTED: 2024-05-14

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS8	BH3 SS12
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-05-06	2024-05-06	2024-05-06
Parameter	Unit	G / S	RDL	5847213	5847216	5847217
Dichlorodifluoromethane	µg/g	16	0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	4	0.05	<0.05	<0.05	<0.05
Acetone	ug/g	16	0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.1	0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.084	0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.75	0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	3.5	0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	16	0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	3.4	0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.38	0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.21	0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.061	0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	13	0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	1.7	0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Toluene	ug/g	2.3	0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	9.4	0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.28	0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.058	0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.4	0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	2	0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-08

DATE REPORTED: 2024-05-14

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS8	BH3 SS12
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-05-06	2024-05-06	2024-05-06
Parameter	**Unit**	**G / S**	**RDL**	**5847213**	**5847216**	**5847217**
Bromoform	ug/g	0.27	0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.7	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
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	4.8	0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.083	0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	3.4	0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	3.1	0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g	2.8	0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	13.6	4.7	15.8
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	% Recovery	50-140		126	125	121
4-Bromofluorobenzene	% Recovery	50-140		82	85	85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5847213-5847217 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.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Exceedance Summary

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5847213	BH3 SS2	ON T3 S RPI CT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	0.923
5847213	BH3 SS2	ON T3 S RPI CT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	6.60
5847218	BH4 SS2	ON T3 S RPI CT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	5.62

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 24T148587
PROJECT: SM 230581-G
ATTENTION TO: Bennett Sabourin
SAMPLING SITE:127 Plains Rd. W
SAMPLED BY:BS

Soil Analysis

RPT Date: May 14, 2024			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	5847484		<0.8	<0.8	NA	< 0.8	136%	70%	130%	103%	80%	120%	76%	70%	130%
Arsenic	5847484		3	3	NA	< 1	92%	70%	130%	98%	80%	120%	101%	70%	130%
Barium	5847484		99.1	97.5	1.6%	< 2.0	101%	70%	130%	97%	80%	120%	101%	70%	130%
Beryllium	5847484		0.8	0.8	NA	< 0.5	104%	70%	130%	116%	80%	120%	123%	70%	130%
Boron	5847484		10	10	NA	< 5	91%	70%	130%	105%	80%	120%	103%	70%	130%
Boron (Hot Water Soluble)	5847464		<0.10	<0.10	NA	< 0.10	84%	60%	140%	101%	70%	130%	102%	60%	140%
Cadmium	5847484		<0.5	<0.5	NA	< 0.5	80%	70%	130%	98%	80%	120%	99%	70%	130%
Chromium	5847484		25	25	0.0%	< 5	100%	70%	130%	100%	80%	120%	117%	70%	130%
Cobalt	5847484		9.2	9.1	1.1%	< 0.8	95%	70%	130%	102%	80%	120%	102%	70%	130%
Copper	5847484		15.0	15.0	0.0%	< 1.0	92%	70%	130%	101%	80%	120%	96%	70%	130%
Lead	5847484		11	11	0.0%	< 1	101%	70%	130%	92%	80%	120%	91%	70%	130%
Molybdenum	5847484		<0.5	<0.5	NA	< 0.5	100%	70%	130%	103%	80%	120%	100%	70%	130%
Nickel	5847484		17	18	5.7%	< 1	96%	70%	130%	97%	80%	120%	100%	70%	130%
Selenium	5847484		<0.8	<0.8	NA	< 0.8	115%	70%	130%	100%	80%	120%	104%	70%	130%
Silver	5847484		<0.5	<0.5	NA	< 0.5	93%	70%	130%	97%	80%	120%	93%	70%	130%
Thallium	5847484		<0.5	<0.5	NA	< 0.5	100%	70%	130%	91%	80%	120%	92%	70%	130%
Uranium	5847484		0.52	0.54	NA	< 0.50	100%	70%	130%	89%	80%	120%	93%	70%	130%
Vanadium	5847484		35.4	36.7	3.6%	< 2.0	116%	70%	130%	96%	80%	120%	104%	70%	130%
Zinc	5847484		51	54	5.7%	< 5	94%	70%	130%	111%	80%	120%	101%	70%	130%
Chromium, Hexavalent	5847209	5847209	<0.2	<0.2	NA	< 0.2	91%	70%	130%	96%	80%	120%	71%	70%	130%
Cyanide, WAD	5847211	5847211	<0.040	<0.040	NA	< 0.040	101%	70%	130%	102%	80%	120%	99%	70%	130%
Mercury	5847484		<0.10	<0.10	NA	< 0.10	103%	70%	130%	98%	80%	120%	94%	70%	130%
Electrical Conductivity (2:1)	5851416		1.58	1.66	4.9%	< 0.005	110%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5847464		0.475	0.479	0.8%	NA									
pH, 2:1 CaCl2 Extraction	5843513		6.93	7.17	3.4%	NA	100%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.
More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	5842336		<0.8	<0.8	NA	< 0.8	120%	70%	130%	102%	80%	120%	96%	70%	130%
Arsenic	5842336		<1	<1	NA	< 1	98%	70%	130%	108%	80%	120%	103%	70%	130%
Barium	5842336		40.6	35.9	12.3%	< 2.0	104%	70%	130%	101%	80%	120%	102%	70%	130%
Beryllium	5842336		<0.5	<0.5	NA	< 0.5	115%	70%	130%	119%	80%	120%	118%	70%	130%
Boron	5842336		<5	<5	NA	< 5	100%	70%	130%	104%	80%	120%	105%	70%	130%
Cadmium	5842336		<0.5	<0.5	NA	< 0.5	100%	70%	130%	101%	80%	120%	104%	70%	130%
Chromium	5842336		11	12	NA	< 5	109%	70%	130%	102%	80%	120%	103%	70%	130%
Cobalt	5842336		3.7	3.8	NA	< 0.8	103%	70%	130%	111%	80%	120%	105%	70%	130%

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

Soil Analysis (Continued)

RPT Date: May 14, 2024			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
Copper	5842336		9.5	9.5	0.0%	< 1.0	101%	70%	130%	105%	80%	120%	103%	70%	130%
Lead	5842336		1	1	NA	< 1	100%	70%	130%	104%	80%	120%	99%	70%	130%
Molybdenum	5842336		<0.5	<0.5	NA	< 0.5	106%	70%	130%	100%	80%	120%	104%	70%	130%
Nickel	5842336		8	9	11.8%	< 1	99%	70%	130%	107%	80%	120%	99%	70%	130%
Selenium	5842336		<0.8	<0.8	NA	< 0.8	127%	70%	130%	105%	80%	120%	107%	70%	130%
Silver	5842336		<0.5	<0.5	NA	< 0.5	110%	70%	130%	104%	80%	120%	101%	70%	130%
Thallium	5842336		<0.5	<0.5	NA	< 0.5	97%	70%	130%	102%	80%	120%	101%	70%	130%
Uranium	5842336		<0.50	<0.50	NA	< 0.50	109%	70%	130%	106%	80%	120%	99%	70%	130%
Vanadium	5842336		16.4	16.9	3.0%	< 2.0	129%	70%	130%	111%	80%	120%	103%	70%	130%
Zinc	5842336		19	20	NA	< 5	99%	70%	130%	107%	80%	120%	103%	70%	130%
Mercury	5842336		<0.10	<0.10	NA	< 0.10	106%	70%	130%	101%	80%	120%	105%	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.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:



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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

Trace Organics Analysis

RPT Date: May 14, 2024			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 (with PAHs) (Soil)															
Benzene	5847221	5847221	<0.02	<0.02	NA	< 0.02	94%	60%	140%	80%	60%	140%	100%	60%	140%
Toluene	5847221	5847221	<0.05	<0.05	NA	< 0.05	89%	60%	140%	84%	60%	140%	100%	60%	140%
Ethylbenzene	5847221	5847221	<0.05	<0.05	NA	< 0.05	81%	60%	140%	89%	60%	140%	82%	60%	140%
m & p-Xylene	5847221	5847221	<0.05	<0.05	NA	< 0.05	102%	60%	140%	100%	60%	140%	84%	60%	140%
o-Xylene	5847221	5847221	<0.05	<0.05	NA	< 0.05	95%	60%	140%	85%	60%	140%	87%	60%	140%
F1 (C6 to C10)	5847221	5847221	<5	<5	NA	< 5	98%	60%	140%	103%	60%	140%	91%	60%	140%
F2 (C10 to C16)	5843474		< 10	< 10	NA	< 10	115%	60%	140%	93%	60%	140%	107%	60%	140%
F3 (C16 to C34)	5843474		< 50	< 50	NA	< 50	120%	60%	140%	94%	60%	140%	111%	60%	140%
F4 (C34 to C50)	5843474		< 50	< 50	NA	< 50	86%	60%	140%	88%	60%	140%	77%	60%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)															
F1 (C6 to C10)	5843480		<5	<5	NA	< 5	130%	60%	140%	108%	60%	140%	100%	60%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5847393		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	73%	50%	140%	85%	50%	140%
Acenaphthylene	5847393		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	83%	50%	140%	78%	50%	140%
Acenaphthene	5847393		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	100%	50%	140%	85%	50%	140%
Fluorene	5847393		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	83%	50%	140%	68%	50%	140%
Phenanthrene	5847393		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	83%	50%	140%	75%	50%	140%
Anthracene	5847393		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	95%	50%	140%	80%	50%	140%
Fluoranthene	5847393		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	80%	50%	140%	65%	50%	140%
Pyrene	5847393		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	93%	50%	140%	68%	50%	140%
Benzo(a)anthracene	5847393		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	75%	50%	140%	93%	50%	140%
Chrysene	5847393		< 0.05	< 0.05	NA	< 0.05	113%	50%	140%	78%	50%	140%	73%	50%	140%
Benzo(b)fluoranthene	5847393		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	85%	50%	140%	83%	50%	140%
Benzo(k)fluoranthene	5847393		< 0.05	< 0.05	NA	< 0.05	121%	50%	140%	85%	50%	140%	75%	50%	140%
Benzo(a)pyrene	5847393		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	100%	50%	140%	78%	50%	140%
Indeno(1,2,3-cd)pyrene	5847393		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	85%	50%	140%	98%	50%	140%
Dibenz(a,h)anthracene	5847393		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	78%	50%	140%	103%	50%	140%
Benzo(g,h,i)perylene	5847393		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	83%	50%	140%	103%	50%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	5843480		<0.05	<0.05	NA	< 0.05	113%	50%	140%	83%	50%	140%	83%	50%	140%
Vinyl Chloride	5843480		<0.02	<0.02	NA	< 0.02	131%	50%	140%	123%	50%	140%	107%	50%	140%
Bromomethane	5843480		<0.05	<0.05	NA	< 0.05	126%	50%	140%	126%	50%	140%	114%	50%	140%
Trichlorofluoromethane	5843480		<0.05	<0.05	NA	< 0.05	99%	50%	140%	108%	50%	140%	122%	50%	140%
Acetone	5843480		<0.50	<0.50	NA	< 0.50	100%	50%	140%	101%	50%	140%	105%	50%	140%
1,1-Dichloroethylene	5843480		<0.05	<0.05	NA	< 0.05	93%	50%	140%	96%	60%	130%	101%	50%	140%
Methylene Chloride	5843480		<0.05	<0.05	NA	< 0.05	73%	50%	140%	95%	60%	130%	93%	50%	140%
Trans- 1,2-Dichloroethylene	5843480		<0.05	<0.05	NA	< 0.05	103%	50%	140%	98%	60%	130%	83%	50%	140%
Methyl tert-butyl Ether	5843480		<0.05	<0.05	NA	< 0.05	85%	50%	140%	98%	60%	130%	97%	50%	140%

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

Trace Organics Analysis (Continued)

RPT Date: May 14, 2024			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-Dichloroethane	5843480		<0.02	<0.02	NA	< 0.02	89%	50%	140%	87%	60%	130%	90%	50%	140%
Methyl Ethyl Ketone	5843480		<0.50	<0.50	NA	< 0.50	98%	50%	140%	102%	50%	140%	93%	50%	140%
Cis- 1,2-Dichloroethylene	5843480		<0.02	<0.02	NA	< 0.02	91%	50%	140%	86%	60%	130%	94%	50%	140%
Chloroform	5843480		<0.04	<0.04	NA	< 0.04	95%	50%	140%	92%	60%	130%	104%	50%	140%
1,2-Dichloroethane	5843480		<0.03	<0.03	NA	< 0.03	98%	50%	140%	97%	60%	130%	94%	50%	140%
1,1,1-Trichloroethane	5843480		<0.05	<0.05	NA	< 0.05	104%	50%	140%	108%	60%	130%	83%	50%	140%
Carbon Tetrachloride	5843480		<0.05	<0.05	NA	< 0.05	90%	50%	140%	98%	60%	130%	92%	50%	140%
Benzene	5843480		<0.02	<0.02	NA	< 0.02	92%	50%	140%	107%	60%	130%	99%	50%	140%
1,2-Dichloropropane	5843480		<0.03	<0.03	NA	< 0.03	95%	50%	140%	98%	60%	130%	84%	50%	140%
Trichloroethylene	5843480		<0.03	<0.03	NA	< 0.03	91%	50%	140%	105%	60%	130%	79%	50%	140%
Bromodichloromethane	5843480		<0.05	<0.05	NA	< 0.05	98%	50%	140%	91%	60%	130%	82%	50%	140%
Methyl Isobutyl Ketone	5843480		<0.50	<0.50	NA	< 0.50	96%	50%	140%	114%	50%	140%	91%	50%	140%
1,1,2-Trichloroethane	5843480		<0.04	<0.04	NA	< 0.04	93%	50%	140%	92%	60%	130%	96%	50%	140%
Toluene	5843480		<0.05	<0.05	NA	< 0.05	94%	50%	140%	98%	60%	130%	102%	50%	140%
Dibromochloromethane	5843480		<0.05	<0.05	NA	< 0.05	80%	50%	140%	99%	60%	130%	74%	50%	140%
Ethylene Dibromide	5843480		<0.04	<0.04	NA	< 0.04	91%	50%	140%	84%	60%	130%	93%	50%	140%
Tetrachloroethylene	5843480		<0.05	<0.05	NA	< 0.05	87%	50%	140%	99%	60%	130%	95%	50%	140%
1,1,1,2-Tetrachloroethane	5843480		<0.04	<0.04	NA	< 0.04	91%	50%	140%	78%	60%	130%	86%	50%	140%
Chlorobenzene	5843480		<0.05	<0.05	NA	< 0.05	88%	50%	140%	93%	60%	130%	100%	50%	140%
Ethylbenzene	5843480		<0.05	<0.05	NA	< 0.05	112%	50%	140%	99%	60%	130%	90%	50%	140%
m & p-Xylene	5843480		<0.05	<0.05	NA	< 0.05	122%	50%	140%	125%	60%	130%	98%	50%	140%
Bromoform	5843480		<0.05	<0.05	NA	< 0.05	88%	50%	140%	73%	60%	130%	88%	50%	140%
Styrene	5843480		<0.05	<0.05	NA	< 0.05	94%	50%	140%	95%	60%	130%	74%	50%	140%
1,1,2,2-Tetrachloroethane	5843480		<0.05	<0.05	NA	< 0.05	88%	50%	140%	106%	60%	130%	67%	50%	140%
o-Xylene	5843480		<0.05	<0.05	NA	< 0.05	95%	50%	140%	98%	60%	130%	101%	50%	140%
1,3-Dichlorobenzene	5843480		<0.05	<0.05	NA	< 0.05	87%	50%	140%	96%	60%	130%	103%	50%	140%
1,4-Dichlorobenzene	5843480		<0.05	<0.05	NA	< 0.05	80%	50%	140%	98%	60%	130%	105%	50%	140%
1,2-Dichlorobenzene	5843480		<0.05	<0.05	NA	< 0.05	99%	50%	140%	94%	60%	130%	103%	50%	140%
n-Hexane	5843480		<0.05	<0.05	NA	< 0.05	86%	50%	140%	83%	60%	130%	77%	50%	140%
O. Reg. 153(511) - PCBs (Soil)															
Polychlorinated Biphenyls	5842767		< 0.1	< 0.1	NA	< 0.1	91%	50%	140%	87%	50%	140%	105%	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

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CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

RPT Date: May 14, 2024

PARAMETER	Sample Id	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		136%	70%	130%	103%	80%	120%	76%	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.
Duplicate NA: results are under 5X the RDL and will not be calculated.
More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

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Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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 Soluble)	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, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

5835 COOPERS AVENUE
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TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Polychlorinated Biphenyls	ORG-91-5113	modified from EPA SW-846 3570 & 8082A	GC/ECD
Decachlorobiphenyl	ORG-91-5113	modified from EPA SW-846 3541 & 8082A	GC/ECD
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	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
F3 (C16 to C34) minus PAHs	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

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Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	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 CCME Tier 1 Method	(P&T)GC/MS
Toluene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

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Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T148587

PROJECT: SM 230581-G

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 Plains Rd. W

SAMPLED BY:BS

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

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

Have feedback? Scan here for a quick survey!

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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 #: 24T148587

Cooler Quantity: 1 Cooler

Arrival Temperatures: 5.8 | 5.2 | 5.9

Custody Seal Intact: ☐ Yes ☐ No ☑ N/A

Notes: L FJ

Report Information:

Company: SOIL MAT

Contact: Bennett Sabourin

Address: 401 Grays Rd, Hamilton

Phone: Fax:

Reports to be sent to:

1. Email: bsabourin@soilmat.ca
2. Email: pmarkesic@soilmat.ca

Regulatory Requirements:

(Please check all applicable boxes)

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

☑ Regulation 406
Table (Indicate One): 1

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
Region:

☐ Prov. Water Quality Objectives (PWQO)

☐ Other

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: 127 Plains Rd. W

Site Location: SM 230581-G

Sampled By: BS

AGAT Quote #: PO:

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

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

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

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company:

Contact:

Address:

Email:

Sample Matrix Legend

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, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	O. Reg 153: VOC	O. Reg 153: PAHs	O. Reg 153: PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. BH2 SS 5	May 7	AM PM	4	S			✓		✓		✓							
2. BH2 SS 11	May 7	AM PM	4	S			✓		✓		✓							
3. BH2 SS 13	May 7	AM PM	4	S			✓		✓		✓							
4. BH3 SS 2	May 6	AM PM	5	S			✓		✓	✓	✓	✓						
5. BH3 SS 8	May 6	AM PM	5	S			✓		✓	✓	✓	✓						
6. BH3 SS 12	May 6	AM PM	5	S			✓		✓	✓	✓	✓						
7. BH4 SS 2	May 7	AM PM	4	S			✓		✓		✓							
8. BH4 SS 9	May 7	AM PM	4	S			✓		✓		✓							
9. BH4 SS 13	May 7	AM PM	4	S			✓		✓		✓							
10. DUP E 2	May 7	AM PM	4	S			✓		✓		✓							
11.		AM PM																

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

May 8 3:50 pm

Page ____ of ____

N°: T - 149444

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

Document ID: DW 78-1511.022

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Date Issued: Mar 30, 2023

AGAT Laboratories

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CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Bennett Sabourin

PROJECT: SM 230581-E

AGAT WORK ORDER: 24T147603

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: May 10, 2024

PAGES (INCLUDING COVER): 22

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 after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- 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.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

SAMPLE DESCRIPTION:				BH1A SS2	BH1A SS5	BH1A SS13	BH5A SS1	BH5A SS10	BH5A SS12	BH6 SS2	BH6 SS6
SAMPLE TYPE:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
DATE SAMPLED:				2024-04-29	2024-04-29	2024-05-01	2024-05-02	2024-05-02	2024-05-02	2024-05-01 12:00	2024-05-01 12:00
Parameter	Unit	G / S	RDL	5841253	5841255	5841256	5841257	5841258	5841259	5841260	5841261
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	3	3	4	4	4	4	3
Barium	µg/g	390	2.0	55.3	24.2	92.0	27.4	42.2	87.4	51.3	91.3
Beryllium	µg/g	4	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0
Boron	µg/g	120	5	8	5	10	<5	8	14	8	41
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	11	8	12	13	9	14	12	29
Cobalt	µg/g	22	0.8	4.4	3.5	6.4	5.5	4.4	6.6	7.1	16.7
Copper	µg/g	140	1.0	20.2	18.5	22.3	25.7	19.9	26.3	49.4	10.2
Lead	µg/g	120	1	15	4	6	9	5	7	13	8
Molybdenum	µg/g	6.9	0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.5	0.6	0.6
Nickel	µg/g	100	1	8	6	13	12	9	15	10	32
Selenium	µg/g	2.4	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	20	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.55	0.83
Vanadium	µg/g	86	2.0	18.4	17.7	16.7	22.2	16.5	24.0	27.1	38.3
Zinc	µg/g	340	5	42	15	27	35	20	29	37	60
Chromium, Hexavalent	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	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	0.7	0.005	0.469	0.122	0.119	0.369	0.087	0.162	1.08	0.142
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	2.15	1.36	1.69	5.51	1.46	1.97	8.02	2.46
pH, 2:1 CaCl2 Extraction	pH Units	5.0-9.0	NA	7.38	7.41	7.41	7.36	7.40	7.42	7.52	7.42

Certified By:



Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

				SAMPLE DESCRIPTION:	BH6 SS13	DUPE 1
				SAMPLE TYPE:	Soil	Soil
				DATE SAMPLED:	2024-05-01 12:00	2024-05-03
Parameter	Unit	G / S	RDL		5841262	5841263
Antimony	µg/g	7.5	0.8		<0.8	<0.8
Arsenic	µg/g	18	1		4	3
Barium	µg/g	390	2.0		61.9	38.1
Beryllium	µg/g	4	0.5		<0.5	<0.5
Boron	µg/g	120	5		14	<5
Boron (Hot Water Soluble)	µg/g	1.5	0.10		<0.10	<0.10
Cadmium	µg/g	1.2	0.5		<0.5	<0.5
Chromium	µg/g	160	5		12	12
Cobalt	µg/g	22	0.8		6.2	5.1
Copper	µg/g	140	1.0		22.1	36.2
Lead	µg/g	120	1		7	9
Molybdenum	µg/g	6.9	0.5		<0.5	<0.5
Nickel	µg/g	100	1		12	11
Selenium	µg/g	2.4	0.8		<0.8	<0.8
Silver	µg/g	20	0.5		<0.5	<0.5
Thallium	µg/g	1	0.5		<0.5	<0.5
Uranium	µg/g	23	0.50		<0.50	<0.50
Vanadium	µg/g	86	2.0		19.0	20.4
Zinc	µg/g	340	5		26	36
Chromium, Hexavalent	µg/g	8	0.2		<0.2	<0.2
Cyanide, WAD	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	0.7	0.005		0.146	0.610
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A		1.32	2.61
pH, 2:1 CaCl2 Extraction	pH Units	5.0-9.0	NA		7.37	6.78

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5841253-5841263 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:



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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

		SAMPLE DESCRIPTION:		BH1A SS2	BH1A SS5	BH1A SS13	BH5A SS1	BH5A SS10	BH5A SS12	BH6 SS2	BH6 SS6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-04-29	2024-04-29	2024-05-01	2024-05-02	2024-05-02	2024-05-02	2024-05-01 12:00	2024-05-01 12:00
Parameter	Unit	G / S	RDL	5841253	5841255	5841256	5841257	5841258	5841259	5841260	5841261
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	8.4	6.9	15.4	11.1	4.1	16.4	7.9	23.4
Surrogate	Unit	Acceptable Limits									
Naphthalene-d8	%	50-140		75	90	80	80	75	85	70	70
Acridine-d9	%	50-140		70	85	85	85	75	95	110	70
Terphenyl-d14	%	50-140		95	70	110	95	80	80	105	80

Certified By: NPopnikolof

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

				SAMPLE DESCRIPTION:	BH6 SS13	DUPE 1
				SAMPLE TYPE:	Soil	Soil
				DATE SAMPLED:	2024-05-01 12:00	2024-05-03
Parameter	Unit	G / S	RDL		5841262	5841263
Naphthalene	µg/g	0.6	0.05		<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05		<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05		<0.05	<0.05
Fluorene	µg/g	62	0.05		<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05		<0.05	<0.05
Anthracene	µg/g	0.67	0.05		<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05		<0.05	<0.05
Pyrene	µg/g	78	0.05		<0.05	<0.05
Benzo(a)anthracene	µg/g	0.5	0.05		<0.05	<0.05
Chrysene	µg/g	7	0.05		<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05		<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05		<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05		<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05		<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05		<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05		<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05		<0.05	<0.05
Moisture Content	%		0.1		16.3	10.3
Surrogate	Unit	Acceptable Limits				
Naphthalene-d8	%	50-140			70	70
Acridine-d9	%	50-140			85	100
Terphenyl-d14	%	50-140			70	70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5841253-5841263 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

		SAMPLE DESCRIPTION:		BH5A SS1	BH5A SS10	BH5A SS12	BH6 SS2	BH6 SS6	BH6 SS13	DUPE 1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-05-02	2024-05-02	2024-05-02	2024-05-01 12:00	2024-05-01 12:00	2024-05-01 12:00	2024-05-03
Parameter	Unit	G / S	RDL	5841257	5841258	5841259	5841260	5841261	5841262	5841263
Polychlorinated Biphenyls	µg/g	0.35	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Moisture Content	%		0.1	11.1	4.1	16.4	7.9	23.4	16.3	10.3
Surrogate	Unit	Acceptable Limits								
Decachlorobiphenyl	%	50-140		76	96	84	80	100	76	100

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5841257-5841263 Results are based on the dry weight of soil extracted.
PCB total is a calculated parameter. The calculated value is the sum of Aroclor 1242, Aroclor 1248, Aroclor 1254 and Aroclor 1260.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

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AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

SAMPLE DESCRIPTION:				BH1A SS2	BH1A SS5	BH1A SS13	BH5A SS1	BH5A SS10	BH5A SS12	BH6 SS2	BH6 SS6
SAMPLE TYPE:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
DATE SAMPLED:				2024-04-29	2024-04-29	2024-05-01	2024-05-02	2024-05-02	2024-05-02	2024-05-01 12:00	2024-05-01 12:00
Parameter	Unit	G / S	RDL	5841253	5841255	5841256	5841257	5841258	5841259	5841260	5841261
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	300	50	70	<50	<50	<50	<50	<50	93	<50
F3 (C16 to C34) minus PAHs	µg/g		50	70	<50	<50	<50	<50	<50	93	<50
F4 (C34 to C50)	µg/g	2800	50	55	<50	<50	<50	<50	<50	68	<50
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	8.4	6.9	15.4	11.1	4.1	16.4	7.9	23.4
Surrogate	Unit	Acceptable Limits									
Toluene-d8	%	50-140		116	112	114	114	114	114	108	115
Terphenyl	%	60-140		86	84	83	84	82	84	103	70

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

		SAMPLE DESCRIPTION:		BH6 SS13	DUPE 1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2024-05-01 12:00	2024-05-03
Parameter	Unit	G / S	RDL	5841262	5841263
F1 (C6 to C10)	µg/g	55	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5
F2 (C10 to C16)	µg/g	98	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	300	50	<50	77
F3 (C16 to C34) minus PAHs	µg/g		50	<50	77
F4 (C34 to C50)	µg/g	2800	50	<50	65
Gravimetric Heavy Hydrocarbons	µg/g	2800	50	NA	NA
Moisture Content	%		0.1	16.3	10.3
Surrogate	Unit	Acceptable Limits			
Toluene-d8	%	50-140		117	112
Terphenyl	%	60-140		81	89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5841253-5841263 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 calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
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 and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

		SAMPLE DESCRIPTION:		BH1A SS2	BH1A SS5	BH1A SS13	BH5A SS1	BH5A SS10	BH5A SS12	BH6 SS2	BH6 SS6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-04-29	2024-04-29	2024-05-01	2024-05-02	2024-05-02	2024-05-02	2024-05-01 12:00	2024-05-01 12:00
Parameter	Unit	G / S	RDL	5841253	5841255	5841256	5841257	5841258	5841259	5841260	5841261
Dichlorodifluoromethane	µg/g	16	0.05	<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	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	16	0.50	<0.50	<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	<0.05	<0.05
Methylene Chloride	ug/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.084	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.75	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	3.5	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	16	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	3.4	0.02	<0.02	<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	<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	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.38	0.05	<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	<0.05	<0.05
Benzene	ug/g	0.21	0.02	<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	<0.03	<0.03
Trichloroethylene	ug/g	0.061	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	13	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	1.7	0.50	<0.50	<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	<0.04	<0.04
Toluene	ug/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	9.4	0.05	<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	<0.04	<0.04
Tetrachloroethylene	ug/g	0.28	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.058	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Certified By: N Popnikolof

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AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

		SAMPLE DESCRIPTION:		BH1A SS2	BH1A SS5	BH1A SS13	BH5A SS1	BH5A SS10	BH5A SS12	BH6 SS2	BH6 SS6
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2024-04-29	2024-04-29	2024-05-01	2024-05-02	2024-05-02	2024-05-02	2024-05-01 12:00	2024-05-01 12:00
Parameter	Unit	G / S	RDL	5841253	5841255	5841256	5841257	5841258	5841259	5841260	5841261
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromoform	ug/g	0.27	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.7	0.05	<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	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	4.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.083	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	3.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	3.1	0.05	<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	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g	2.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	8.4	6.9	15.4	11.1	4.1	16.4	7.9	23.4
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	50-140		116	112	114	114	114	114	108	115
4-Bromofluorobenzene	% Recovery	50-140		95	93	85	92	98	93	90	96

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

		SAMPLE DESCRIPTION:		BH6 SS13	DUPE 1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2024-05-01 12:00	2024-05-03
Parameter	Unit	G / S	RDL	5841262	5841263
Dichlorodifluoromethane	µg/g	16	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	4	0.05	<0.05	<0.05
Acetone	ug/g	16	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.1	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.084	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.75	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	3.5	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	16	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	3.4	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	0.38	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.21	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.061	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	13	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	1.7	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	2.3	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	9.4	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.28	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.058	0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.4	0.05	<0.05	<0.05
Ethylbenzene	ug/g	2	0.05	<0.05	<0.05

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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

DATE RECEIVED: 2024-05-06

DATE REPORTED: 2024-05-10

				SAMPLE DESCRIPTION:	BH6 SS13	DUPE 1
				SAMPLE TYPE:	Soil	Soil
				DATE SAMPLED:	2024-05-01 12:00	2024-05-03
Parameter	Unit	G / S	RDL		5841262	5841263
m & p-Xylene	ug/g		0.05		<0.05	<0.05
Bromoform	ug/g	0.27	0.05		<0.05	<0.05
Styrene	ug/g	0.7	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	4.8	0.05		<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.083	0.05		<0.05	<0.05
1,2-Dichlorobenzene	ug/g	3.4	0.05		<0.05	<0.05
Xylenes (Total)	ug/g	3.1	0.05		<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.05		<0.05	<0.05
n-Hexane	µg/g	2.8	0.05		<0.05	<0.05
Moisture Content	%		0.1		16.3	10.3
Surrogate	Unit	Acceptable Limits				
Toluene-d8	% Recovery	50-140			117	112
4-Bromofluorobenzene	% Recovery	50-140			92	93

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 S RPI CT
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.

5841253-5841263 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.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Exceedance Summary

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Bennett Sabourin

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5841257	BH5A SS1	ON T3 S RPI CT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	5.51
5841260	BH6 SS2	ON T3 S RPI CT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	1.08
5841260	BH6 SS2	ON T3 S RPI CT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	8.02

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 24T147603
PROJECT: SM 230581-E
ATTENTION TO: Bennett Sabourin
SAMPLING SITE:127 PLAINS RD. W, BURLINGTON
SAMPLED BY:BS

Soil Analysis

RPT Date: May 10, 2024			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	5841253	5841253	<0.8	<0.8	NA	< 0.8	115%	70%	130%	105%	80%	120%	100%	70%	130%
Arsenic	5841253	5841253	6	7	15.4%	< 1	109%	70%	130%	116%	80%	120%	120%	70%	130%
Barium	5841253	5841253	55.3	61.1	10.0%	< 2.0	92%	70%	130%	106%	80%	120%	106%	70%	130%
Beryllium	5841253	5841253	<0.5	<0.5	NA	< 0.5	114%	70%	130%	117%	80%	120%	128%	70%	130%
Boron	5841253	5841253	8	8	NA	< 5	97%	70%	130%	98%	80%	120%	109%	70%	130%
Boron (Hot Water Soluble)	5840933		<0.10	<0.10	NA	< 0.10	113%	60%	140%	99%	70%	130%	105%	60%	140%
Cadmium	5841253	5841253	<0.5	<0.5	NA	< 0.5	115%	70%	130%	101%	80%	120%	111%	70%	130%
Chromium	5841253	5841253	11	10	NA	< 5	102%	70%	130%	119%	80%	120%	120%	70%	130%
Cobalt	5841253	5841253	4.4	4.4	0.0%	< 0.8	119%	70%	130%	117%	80%	120%	118%	70%	130%
Copper	5841253	5841253	20.2	20.7	2.4%	< 1.0	81%	70%	130%	105%	80%	120%	96%	70%	130%
Lead	5841253	5841253	15	18	18.2%	< 1	92%	70%	130%	117%	80%	120%	107%	70%	130%
Molybdenum	5841253	5841253	0.6	0.7	NA	< 0.5	107%	70%	130%	104%	80%	120%	107%	70%	130%
Nickel	5841253	5841253	8	9	11.8%	< 1	114%	70%	130%	115%	80%	120%	111%	70%	130%
Selenium	5841253	5841253	<0.8	<0.8	NA	< 0.8	99%	70%	130%	104%	80%	120%	106%	70%	130%
Silver	5841253	5841253	<0.5	<0.5	NA	< 0.5	101%	70%	130%	108%	80%	120%	105%	70%	130%
Thallium	5841253	5841253	<0.5	<0.5	NA	< 0.5	121%	70%	130%	104%	80%	120%	101%	70%	130%
Uranium	5841253	5841253	<0.50	<0.50	NA	< 0.50	121%	70%	130%	115%	80%	120%	116%	70%	130%
Vanadium	5841253	5841253	18.4	17.5	5.0%	< 2.0	127%	70%	130%	115%	80%	120%	105%	70%	130%
Zinc	5841253	5841253	42	45	6.9%	< 5	88%	70%	130%	102%	80%	120%	101%	70%	130%
Chromium, Hexavalent	5841261	5841261	<0.2	<0.2	NA	< 0.2	95%	70%	130%	86%	80%	120%	75%	70%	130%
Cyanide, WAD	5841263	5841263	<0.040	<0.040	NA	< 0.040	101%	70%	130%	99%	80%	120%	106%	70%	130%
Mercury	5841253	5841253	<0.10	<0.10	NA	< 0.10	105%	70%	130%	105%	80%	120%	105%	70%	130%
Electrical Conductivity (2:1)	5841253	5841253	0.469	0.439	6.6%	< 0.005	99%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5841253	5841253	2.15	1.85	15.0%	NA									
pH, 2:1 CaCl2 Extraction	5842882		6.21	6.47	4.1%	NA	96%	80%	120%						

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

O. Reg. 153(511) - Metals & Inorganics (Soil)															
pH, 2:1 CaCl2 Extraction	5841263	5841263	6.78	6.91	1.9%		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.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:



AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 24T147603
PROJECT: SM 230581-E
ATTENTION TO: Bennett Sabourin
SAMPLING SITE:127 PLAINS RD. W, BURLINGTON
SAMPLED BY:BS

Trace Organics Analysis

RPT Date: May 10, 2024

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 (with PAHs and VOC) (Soil)															
F1 (C6 to C10)	5841061		<5	<5	NA	< 5	95%	60%	140%	89%	60%	140%	94%	60%	140%
F2 (C10 to C16)	5841253	5841253	<10	<10	NA	< 10	96%	60%	140%	89%	60%	140%	109%	60%	140%
F3 (C16 to C34)	5841253	5841253	70	52	NA	< 50	100%	60%	140%	94%	60%	140%	105%	60%	140%
F4 (C34 to C50)	5841253	5841253	55	52	NA	< 50	90%	60%	140%	102%	60%	140%	110%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	5841061		<0.05	<0.05	NA	< 0.05	109%	50%	140%	93%	50%	140%	74%	50%	140%
Vinyl Chloride	5841061		<0.02	<0.02	NA	< 0.02	109%	50%	140%	104%	50%	140%	118%	50%	140%
Bromomethane	5841061		<0.05	<0.05	NA	< 0.05	98%	50%	140%	103%	50%	140%	117%	50%	140%
Trichlorofluoromethane	5841061		<0.05	<0.05	NA	< 0.05	111%	50%	140%	97%	50%	140%	103%	50%	140%
Acetone	5841061		<0.50	<0.50	NA	< 0.50	87%	50%	140%	100%	50%	140%	110%	50%	140%
1,1-Dichloroethylene	5841061		<0.05	<0.05	NA	< 0.05	66%	50%	140%	94%	60%	130%	100%	50%	140%
Methylene Chloride	5841061		<0.05	<0.05	NA	< 0.05	86%	50%	140%	90%	60%	130%	92%	50%	140%
Trans- 1,2-Dichloroethylene	5841061		<0.05	<0.05	NA	< 0.05	92%	50%	140%	104%	60%	130%	89%	50%	140%
Methyl tert-butyl Ether	5841061		<0.05	<0.05	NA	< 0.05	96%	50%	140%	87%	60%	130%	92%	50%	140%
1,1-Dichloroethane	5841061		<0.02	<0.02	NA	< 0.02	84%	50%	140%	74%	60%	130%	76%	50%	140%
Methyl Ethyl Ketone	5841061		<0.50	<0.50	NA	< 0.50	94%	50%	140%	89%	50%	140%	102%	50%	140%
Cis- 1,2-Dichloroethylene	5841061		<0.02	<0.02	NA	< 0.02	97%	50%	140%	90%	60%	130%	107%	50%	140%
Chloroform	5841061		<0.04	<0.04	NA	< 0.04	91%	50%	140%	88%	60%	130%	99%	50%	140%
1,2-Dichloroethane	5841061		<0.03	<0.03	NA	< 0.03	94%	50%	140%	91%	60%	130%	97%	50%	140%
1,1,1-Trichloroethane	5841061		<0.05	<0.05	NA	< 0.05	96%	50%	140%	88%	60%	130%	99%	50%	140%
Carbon Tetrachloride	5841061		<0.05	<0.05	NA	< 0.05	87%	50%	140%	95%	60%	130%	91%	50%	140%
Benzene	5841061		<0.02	<0.02	NA	< 0.02	89%	50%	140%	91%	60%	130%	100%	50%	140%
1,2-Dichloropropane	5841061		<0.03	<0.03	NA	< 0.03	104%	50%	140%	84%	60%	130%	107%	50%	140%
Trichloroethylene	5841061		<0.03	<0.03	NA	< 0.03	89%	50%	140%	98%	60%	130%	93%	50%	140%
Bromodichloromethane	5841061		<0.05	<0.05	NA	< 0.05	105%	50%	140%	86%	60%	130%	108%	50%	140%
Methyl Isobutyl Ketone	5841061		<0.50	<0.50	NA	< 0.50	78%	50%	140%	90%	50%	140%	95%	50%	140%
1,1,2-Trichloroethane	5841061		<0.04	<0.04	NA	< 0.04	93%	50%	140%	96%	60%	130%	94%	50%	140%
Toluene	5841061		<0.05	<0.05	NA	< 0.05	102%	50%	140%	97%	60%	130%	104%	50%	140%
Dibromochloromethane	5841061		<0.05	<0.05	NA	< 0.05	94%	50%	140%	71%	60%	130%	92%	50%	140%
Ethylene Dibromide	5841061		<0.04	<0.04	NA	< 0.04	84%	50%	140%	85%	60%	130%	96%	50%	140%
Tetrachloroethylene	5841061		<0.05	<0.05	NA	< 0.05	70%	50%	140%	80%	60%	130%	91%	50%	140%
1,1,1,2-Tetrachloroethane	5841061		<0.04	<0.04	NA	< 0.04	107%	50%	140%	77%	60%	130%	84%	50%	140%
Chlorobenzene	5841061		<0.05	<0.05	NA	< 0.05	89%	50%	140%	97%	60%	130%	104%	50%	140%
Ethylbenzene	5841061		<0.05	<0.05	NA	< 0.05	90%	50%	140%	85%	60%	130%	95%	50%	140%
m & p-Xylene	5841061		<0.05	<0.05	NA	< 0.05	97%	50%	140%	94%	60%	130%	111%	50%	140%
Bromoform	5841061		<0.05	<0.05	NA	< 0.05	83%	50%	140%	91%	60%	130%	94%	50%	140%
Styrene	5841061		<0.05	<0.05	NA	< 0.05	81%	50%	140%	91%	60%	130%	89%	50%	140%
1,1,2,2-Tetrachloroethane	5841061		<0.05	<0.05	NA	< 0.05	95%	50%	140%	90%	60%	130%	75%	50%	140%
o-Xylene	5841061		<0.05	<0.05	NA	< 0.05	100%	50%	140%	95%	60%	130%	104%	50%	140%

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 24T147603
PROJECT: SM 230581-E
ATTENTION TO: Bennett Sabourin
SAMPLING SITE:127 PLAINS RD. W, BURLINGTON
SAMPLED BY:BS

Trace Organics Analysis (Continued)

RPT Date: May 10, 2024			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
1,3-Dichlorobenzene	5841061		<0.05	<0.05	NA	< 0.05	97%	50%	140%	100%	60%	130%	98%	50%	140%
1,4-Dichlorobenzene	5841061		<0.05	<0.05	NA	< 0.05	91%	50%	140%	103%	60%	130%	93%	50%	140%
1,2-Dichlorobenzene	5841061		<0.05	<0.05	NA	< 0.05	97%	50%	140%	101%	60%	130%	96%	50%	140%
n-Hexane	5841061		<0.05	<0.05	NA	< 0.05	70%	50%	140%	88%	60%	130%	90%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5841253	5841253	<0.05	<0.05	NA	< 0.05	85%	50%	140%	73%	50%	140%	93%	50%	140%
Acenaphthylene	5841253	5841253	<0.05	<0.05	NA	< 0.05	98%	50%	140%	93%	50%	140%	88%	50%	140%
Acenaphthene	5841253	5841253	<0.05	<0.05	NA	< 0.05	101%	50%	140%	75%	50%	140%	98%	50%	140%
Fluorene	5841253	5841253	<0.05	<0.05	NA	< 0.05	99%	50%	140%	80%	50%	140%	90%	50%	140%
Phenanthrene	5841253	5841253	<0.05	<0.05	NA	< 0.05	110%	50%	140%	75%	50%	140%	95%	50%	140%
Anthracene	5841253	5841253	<0.05	<0.05	NA	< 0.05	102%	50%	140%	88%	50%	140%	83%	50%	140%
Fluoranthene	5841253	5841253	<0.05	<0.05	NA	< 0.05	119%	50%	140%	85%	50%	140%	95%	50%	140%
Pyrene	5841253	5841253	<0.05	<0.05	NA	< 0.05	118%	50%	140%	85%	50%	140%	98%	50%	140%
Benzo(a)anthracene	5841253	5841253	<0.05	<0.05	NA	< 0.05	120%	50%	140%	85%	50%	140%	90%	50%	140%
Chrysene	5841253	5841253	<0.05	<0.05	NA	< 0.05	106%	50%	140%	83%	50%	140%	80%	50%	140%
Benzo(b)fluoranthene	5841253	5841253	<0.05	<0.05	NA	< 0.05	99%	50%	140%	78%	50%	140%	83%	50%	140%
Benzo(k)fluoranthene	5841253	5841253	<0.05	<0.05	NA	< 0.05	111%	50%	140%	88%	50%	140%	108%	50%	140%
Benzo(a)pyrene	5841253	5841253	<0.05	<0.05	NA	< 0.05	88%	50%	140%	73%	50%	140%	70%	50%	140%
Indeno(1,2,3-cd)pyrene	5841253	5841253	<0.05	<0.05	NA	< 0.05	75%	50%	140%	75%	50%	140%	73%	50%	140%
Dibenz(a,h)anthracene	5841253	5841253	<0.05	<0.05	NA	< 0.05	79%	50%	140%	78%	50%	140%	75%	50%	140%
Benzo(g,h,i)perylene	5841253	5841253	<0.05	<0.05	NA	< 0.05	82%	50%	140%	95%	50%	140%	70%	50%	140%
O. Reg. 153(511) - PCBs (Soil)															
Polychlorinated Biphenyls	5838151		< 0.1	< 0.1	NA	< 0.1	96%	50%	140%	100%	50%	140%	88%	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

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Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

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 Soluble)	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, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

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Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T147603

PROJECT: SM 230581-E

ATTENTION TO: Bennett Sabourin

SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Polychlorinated Biphenyls	ORG-91-5113	modified from EPA SW-846 3570 & 8082A	GC/ECD
Decachlorobiphenyl	ORG-91-5113	modified from EPA SW-846 3541 & 8082A	GC/ECD
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	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
F3 (C16 to C34) minus PAHs	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

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Method Summary

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PROJECT: SM 230581-E

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SAMPLING SITE:127 PLAINS RD. W, BURLINGTON

SAMPLED BY:BS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	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 5035A and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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Method Summary

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AGAT WORK ORDER: 24T147603

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ATTENTION TO: Bennett Sabourin

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

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AGAT Laboratories

Have feedback? Scan here for a quick survey!

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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 24T147603
Work Order #: T-149440

Cooler Quantity: 1 Large
Arrival Temperatures: 3.7 | 4.0 | 4.2
Custody Seal Intact: ☐ Yes ☐ No ☑ N/A
Notes: 4/1

Report Information:

Company: SOILMAT
Contact: Bennett Sabourin
Address: 401 Grays RD
Hamilton
Phone: Fax:
Reports to be sent to:
1. Email: bsabourin@soilmat.ca
2. Email: pmarkesic@soilmat.ca

Regulatory Requirements:

(Please check all applicable boxes)

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

☑ Regulation 406
Table 1 (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use
☐ Sanitary ☐ Storm
Region
☐ 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: SM 230581-E
Site Location: 127 Plains Rd. W, Burlington
Sampled By: BS
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

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, DOC Y/N	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☑ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. BH1A SS 2	4/29/24	AM/PM	4	S			✓		✓	✓	✓							
2. BH1A SS5	4/29/24	AM/PM	4	S			✓		✓	✓	✓							
3. BH1A SS13	5/1/24	AM/PM	4	S			✓		✓	✓	✓							
4. BH5A SS 1	5/2/24	AM/PM	5	S			✓		✓	✓	✓	✓						
5. BH5A SS 10	5/2/24	AM/PM	5	S			✓		✓	✓	✓	✓						
6. BH5A SS 12	5/2/24	AM/PM	5	S			✓		✓	✓	✓	✓						
7. BH6 SS 2	5/1/24	AM/PM	5	S			✓		✓	✓	✓	✓						
8. BH6 SS 6	5/1/24	AM/PM	5	S			✓		✓	✓	✓	✓						
9. BH6 SS 13	5/1/24	AM/PM	5	S			✓		✓	✓	✓	✓						
10. DUPE 1	5/3/24	AM/PM	5	S			✓		✓	✓	✓	✓						
11.		AM/PM																

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
				May 6	4:30 pm
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page ____ of ____

N°: T-149440

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

Any and all products and/or services provided by AGAT Labs are pursuant to the terms and conditions as set forth at www.agatlabs.com/termsandconditions unless otherwise agreed in a current written contractual document.

Appendix ‘C’

1. AGAT Certificate of Analysis – Groundwater

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
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 230581

AGAT WORK ORDER: 24T159922

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Yris Verastegui, Inorganic Team Lead

DATE REPORTED: Jun 13, 2024

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

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 after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- 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.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

		SAMPLE DESCRIPTION:		MW1-S1	MW2-S1	MW3-S1	MW4-S1	MW5B-S1	MW6-S1	DUP1
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2024-06-06	2024-06-06	2024-06-06	2024-06-06 12:00	2024-06-06 12:00	2024-06-06 12:00	2024-06-06
Parameter	Unit	G / S	RDL	5916601	5916605	5916607	5916612	5916614	5916632	5916634
Naphthalene	µg/L	1400	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L	1.8	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L	600	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L	400	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L	580	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L	2.4	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L	130	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L	68	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L	4.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L	1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.75	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.4	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.81	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.52	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Napthalene	µg/L	1800	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Sediment				1	3	1	1	3	3	3
Surrogate	Unit	Acceptable Limits								
Naphthalene-d8	%	50-140		110	121	128	136	118	126	140
Acridine-d9	%	50-140		92	120	81	107	94	71	110
Terphenyl-d14	%	50-140		120	139	123	135	139	117	135

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 NPGW CT
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.

5916601-5916634 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

				SAMPLE DESCRIPTION:	MW1-S1	MW2-S1	MW3-S1	MW4-S1	MW5B-S1	MW6-S1	DUP1
				SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water
				DATE SAMPLED:	2024-06-06	2024-06-06	2024-06-06	2024-06-06 12:00	2024-06-06 12:00	2024-06-06 12:00	2024-06-06
Parameter	Unit	G / S	RDL		5916601	5916605	5916607	5916612	5916614	5916632	5916634
Polychlorinated Biphenyls	µg/L	7.8	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate	Unit	Acceptable Limits									
Decachlorobiphenyl	%	60-140			97	104	90	116	104	97	117

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 NPGW CT
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.

5916601-5916634 PCB total is a calculated parameter. The calculated value is the sum of Aroclor 1242, Aroclor 1248, Aroclor 1254 and Aroclor 1260.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

				SAMPLE DESCRIPTION:	MW1-S1	MW2-S1	MW3-S1	MW4-S1	MW5B-S1	MW6-S1	DUP1
				SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water
				DATE SAMPLED:	2024-06-06	2024-06-06	2024-06-06	2024-06-06 12:00	2024-06-06 12:00	2024-06-06 12:00	2024-06-06
Parameter	Unit	G / S	RDL		5916601	5916605	5916607	5916612	5916614	5916632	5916634
Benzene	µg/L	44	0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	18000	0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L	2300	0.10		<0.10	<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	<0.20	<0.20
o-Xylene	µg/L		0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Xylenes (Total)	µg/L	4200	0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
F1 (C6 to C10)	µg/L	750	25		<25	<25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25		<25	<25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100		<100	<100	<100	<100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100		<100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100		<100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100		<100	<100	<100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100		<100	<100	<100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500		NA	NA	NA	NA	NA	NA	NA
Sediment					1	3	1	1	3	3	3
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	60-140			113	120	114	120	82.5	90.8	83.8
Terphenyl	% Recovery	60-140			97	74	70	84	65	83	76

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 NPGW CT
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.

5916601-5916634 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount
The C6-C10 fraction is calculated using toluene response factor.
Xylenes total 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 calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
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 and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

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AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

		SAMPLE DESCRIPTION:		MW1-S1A	MW2-S1A	MW3-S1A	MW4-S1A	MW5B-S1A	MW6-S1A	DUP1A
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2024-06-06	2024-06-06	2024-06-06	2024-06-06 12:00	2024-06-06 12:00	2024-06-06 12:00	2024-06-06
Parameter	Unit	G / S	RDL	5916604	5916606	5916608	5916613	5916615	5916633	5916636
Dichlorodifluoromethane	µg/L	4400	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17	1.19	<0.17	<0.17
Bromomethane	µg/L	5.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	2500	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L	130000	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	610	0.30	<0.30	<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	<0.20	<0.20
Methyl tert-butyl ether	µg/L	190	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	320	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	470000	1.0	<1.0	<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	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	0.55	2.95	0.79	3.54	<0.20	0.60
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L	44	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	16	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	85000	0.20	<0.20	<0.20	<0.20	<0.20	1.49	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	140000	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	18000	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	82000	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.25	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	3.3	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	630	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	2300	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

				SAMPLE DESCRIPTION:	MW1-S1A	MW2-S1A	MW3-S1A	MW4-S1A	MW5B-S1A	MW6-S1A	DUP1A
				SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water
				DATE SAMPLED:	2024-06-06	2024-06-06	2024-06-06	2024-06-06 12:00	2024-06-06 12:00	2024-06-06 12:00	2024-06-06
Parameter	Unit	G / S	RDL		5916604	5916606	5916608	5916613	5916615	5916633	5916636
m & p-Xylene	µg/L		0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	µg/L	380	0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L	1300	0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	3.2	0.10		<0.10	<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	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	9600	0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	8	0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	4600	0.10		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	5.2	0.30		<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	4200	0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	51	0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	50-140			97	95	96	101	94	95	93
4-Bromofluorobenzene	% Recovery	50-140			77	79	82	80	78	78	79

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 NPGW CT
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.

5916604-5916636 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.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopnikolof

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

		SAMPLE DESCRIPTION:		MW1-S1	MW2-S1	MW3-S1	MW4-S1	MW5B-S1	MW6-S1	DUP1
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2024-06-06	2024-06-06	2024-06-06	2024-06-06 12:00	2024-06-06 12:00	2024-06-06 12:00	2024-06-06
Parameter	Unit	G / S	RDL	5916601	5916605	5916607	5916612	5916614	5916632	5916634
Dissolved Antimony	µg/L	20000	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	1900	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
Dissolved Barium	µg/L	29000	2.0	97.4	101	94.3	83.3	115	139	118
Dissolved Beryllium	µg/L	67	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	45000	10.0	89.0	108	126	127	84.8	108	112
Dissolved Cadmium	µg/L	2.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	810	2.0	2.4	<2.0	<2.0	<2.0	<2.0	2.2	<2.0
Dissolved Cobalt	µg/L	66	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Copper	µg/L	87	1.0	1.5	<1.0	<1.0	<1.0	1.3	1.5	<1.0
Dissolved Lead	µg/L	25	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	9200	0.50	1.12	<0.50	0.85	0.55	2.69	3.30	<0.50
Dissolved Nickel	µg/L	490	1.0	2.2	<1.0	2.0	1.9	1.0	2.0	<1.0
Dissolved Selenium	µg/L	63	1.0	1.3	1.5	1.6	2.4	1.7	2.0	<1.0
Dissolved Silver	µg/L	1.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	510	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	420	0.50	0.80	1.06	0.97	1.11	2.01	1.42	1.03
Dissolved Vanadium	µg/L	250	0.40	<0.40	<0.40	<0.40	<0.40	0.63	<0.40	<0.40
Dissolved Zinc	µg/L	1100	5.0	17.3	<5.0	<5.0	<5.0	5.8	6.0	<5.0
Mercury	µg/L	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L	140	2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000
Cyanide, WAD	µg/L	66	2	<2	<2	<2	<2	<2	<2	<2
Dissolved Sodium	µg/L	2300000	50	210000	153000	220000	160000	138000	121000	163000
Chloride	µg/L	2300000	100	392000	615000	548000	472000	279000	396000	618000
Electrical Conductivity	uS/cm	NA	2	1900	2530	2470	2520	1520	2070	2850
pH	pH Units		NA	7.87	7.56	7.65	7.70	7.97	7.77	7.57

Certified By: Iris Verástegui

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Certificate of Analysis

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

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

DATE RECEIVED: 2024-06-07

DATE REPORTED: 2024-06-13

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T3 NPGW CT
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.

5916601-5916634 Metals analysis completed on a filtered sample.
pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results
Dilution required, RDL has been increased accordingly.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

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Exceedance Summary

AGAT WORK ORDER: 24T159922

PROJECT: 230581

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5916608	MW3-S1A	ON T3 NPGW CT	O. Reg. 153(511) - VOCs (Water)	Chloroform	µg/L	2.4	2.95
5916615	MW5B-S1A	ON T3 NPGW CT	O. Reg. 153(511) - VOCs (Water)	Chloroform	µg/L	2.4	3.54
5916615	MW5B-S1A	ON T3 NPGW CT	O. Reg. 153(511) - VOCs (Water)	Vinyl Chloride	µg/L	0.5	1.19

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 24T159922
PROJECT: 230581
ATTENTION TO: Peter Markesic
SAMPLING SITE:127 Plains Road West
SAMPLED BY:GG & BS

Trace Organics Analysis

RPT Date: Jun 13, 2024			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) - PAHs (Water)															
Naphthalene	5916280		<0.20	<0.20	NA	< 0.20	128%	50%	140%	104%	50%	140%	83%	50%	140%
Acenaphthylene	5916280		<0.20	<0.20	NA	< 0.20	119%	50%	140%	97%	50%	140%	75%	50%	140%
Acenaphthene	5916280		<0.20	<0.20	NA	< 0.20	118%	50%	140%	98%	50%	140%	76%	50%	140%
Fluorene	5916280		<0.20	<0.20	NA	< 0.20	122%	50%	140%	103%	50%	140%	80%	50%	140%
Phenanthrene	5916280		0.33	0.33	NA	< 0.10	125%	50%	140%	107%	50%	140%	83%	50%	140%
Anthracene	5916280		<0.10	<0.10	NA	< 0.10	116%	50%	140%	92%	50%	140%	79%	50%	140%
Fluoranthene	5916280		<0.20	<0.20	NA	< 0.20	127%	50%	140%	107%	50%	140%	83%	50%	140%
Pyrene	5916280		<0.20	<0.20	NA	< 0.20	122%	50%	140%	104%	50%	140%	80%	50%	140%
Benzo(a)anthracene	5916280		<0.20	<0.20	NA	< 0.20	127%	50%	140%	114%	50%	140%	89%	50%	140%
Chrysene	5916280		<0.10	<0.10	NA	< 0.10	120%	50%	140%	91%	50%	140%	74%	50%	140%
Benzo(b)fluoranthene	5916280		<0.10	<0.10	NA	< 0.10	125%	50%	140%	98%	50%	140%	86%	50%	140%
Benzo(k)fluoranthene	5916280		<0.10	<0.10	NA	< 0.10	137%	50%	140%	96%	50%	140%	112%	50%	140%
Benzo(a)pyrene	5916280		<0.01	<0.01	NA	< 0.01	110%	50%	140%	82%	50%	140%	83%	50%	140%
Indeno(1,2,3-cd)pyrene	5916280		<0.20	<0.20	NA	< 0.20	80%	50%	140%	78%	50%	140%	86%	50%	140%
Dibenz(a,h)anthracene	5916280		<0.20	<0.20	NA	< 0.20	85%	50%	140%	75%	50%	140%	82%	50%	140%
Benzo(g,h,i)perylene	5916280		<0.20	<0.20	NA	< 0.20	79%	50%	140%	79%	50%	140%	111%	50%	140%
O. Reg. 153(511) - PCBs (Water)															
Polychlorinated Biphenyls	5903632		< 0.1	< 0.1	NA	< 0.1	95%	50%	140%	100%	50%	140%	101%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)															
Benzene	5913692		<0.20	<0.20	NA	< 0.20	92%	60%	140%	78%	60%	140%	107%	60%	140%
Toluene	5913692		<0.20	<0.20	NA	< 0.20	94%	60%	140%	80%	60%	140%	88%	60%	140%
Ethylbenzene	5913692		<0.10	<0.10	NA	< 0.10	94%	60%	140%	78%	60%	140%	95%	60%	140%
m & p-Xylene	5913692		<0.20	<0.20	NA	< 0.20	91%	60%	140%	77%	60%	140%	94%	60%	140%
o-Xylene	5913692		<0.10	<0.10	NA	< 0.10	92%	60%	140%	77%	60%	140%	98%	60%	140%
F1 (C6 to C10)	5913692		<25	<25	NA	< 25	89%	60%	140%	87%	60%	140%	85%	60%	140%
F2 (C10 to C16)	5909655		<100	<100	NA	< 100	88%	60%	140%	71%	60%	140%	69%	60%	140%
F3 (C16 to C34)	5909655		<100	<100	NA	< 100	99%	60%	140%	84%	60%	140%	86%	60%	140%
F4 (C34 to C50)	5909655		<100	<100	NA	< 100	83%	60%	140%	90%	60%	140%	80%	60%	140%
O. Reg. 153(511) - VOCs (Water)															
Dichlorodifluoromethane	5916636	5916636	<0.40	<0.40	NA	< 0.40	63%	50%	140%	99%	50%	140%	75%	50%	140%
Vinyl Chloride	5916636	5916636	<0.17	<0.17	NA	< 0.17	81%	50%	140%	97%	50%	140%	67%	50%	140%
Bromomethane	5916636	5916636	<0.20	<0.20	NA	< 0.20	86%	50%	140%	102%	50%	140%	69%	50%	140%
Trichlorofluoromethane	5916636	5916636	<0.40	<0.40	NA	< 0.40	77%	50%	140%	101%	50%	140%	64%	50%	140%
Acetone	5916636	5916636	<1.0	<1.0	NA	< 1.0	78%	50%	140%	72%	50%	140%	80%	50%	140%
1,1-Dichloroethylene	5916636	5916636	<0.30	<0.30	NA	< 0.30	66%	50%	140%	64%	60%	130%	75%	50%	140%
Methylene Chloride	5916636	5916636	<0.30	<0.30	NA	< 0.30	64%	50%	140%	83%	60%	130%	108%	50%	140%
trans- 1,2-Dichloroethylene	5916636	5916636	<0.20	<0.20	NA	< 0.20	63%	50%	140%	73%	60%	130%	94%	50%	140%
Methyl tert-butyl ether	5916636	5916636	<0.20	<0.20	NA	< 0.20	97%	50%	140%	89%	60%	130%	114%	50%	140%

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Quality Assurance

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AGAT WORK ORDER: 24T159922
PROJECT: 230581
ATTENTION TO: Peter Markesic
SAMPLING SITE:127 Plains Road West
SAMPLED BY:GG & BS

Trace Organics Analysis (Continued)

RPT Date: Jun 13, 2024			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-Dichloroethane	5916636	5916636	<0.30	<0.30	NA	< 0.30	75%	50%	140%	74%	60%	130%	102%	50%	140%
Methyl Ethyl Ketone	5916636	5916636	<1.0	<1.0	NA	< 1.0	99%	50%	140%	99%	50%	140%	109%	50%	140%
cis- 1,2-Dichloroethylene	5916636	5916636	<0.20	<0.20	NA	< 0.20	74%	50%	140%	74%	60%	130%	91%	50%	140%
Chloroform	5916636	5916636	0.60	0.58	NA	< 0.20	98%	50%	140%	95%	60%	130%	91%	50%	140%
1,2-Dichloroethane	5916636	5916636	<0.20	<0.20	NA	< 0.20	78%	50%	140%	65%	60%	130%	93%	50%	140%
1,1,1-Trichloroethane	5916636	5916636	<0.30	<0.30	NA	< 0.30	77%	50%	140%	75%	60%	130%	98%	50%	140%
Carbon Tetrachloride	5916636	5916636	<0.20	<0.20	NA	< 0.20	79%	50%	140%	80%	60%	130%	102%	50%	140%
Benzene	5916636	5916636	<0.20	<0.20	NA	< 0.20	110%	50%	140%	105%	60%	130%	120%	50%	140%
1,2-Dichloropropane	5916636	5916636	<0.20	<0.20	NA	< 0.20	117%	50%	140%	101%	60%	130%	119%	50%	140%
Trichloroethylene	5916636	5916636	<0.20	<0.20	NA	< 0.20	109%	50%	140%	90%	60%	130%	116%	50%	140%
Bromodichloromethane	5916636	5916636	<0.20	<0.20	NA	< 0.20	117%	50%	140%	91%	60%	130%	108%	50%	140%
Methyl Isobutyl Ketone	5916636	5916636	<1.0	<1.0	NA	< 1.0	91%	50%	140%	104%	50%	140%	119%	50%	140%
1,1,2-Trichloroethane	5916636	5916636	<0.20	<0.20	NA	< 0.20	119%	50%	140%	100%	60%	130%	104%	50%	140%
Toluene	5916636	5916636	<0.20	<0.20	NA	< 0.20	106%	50%	140%	88%	60%	130%	119%	50%	140%
Dibromochloromethane	5916636	5916636	<0.10	<0.10	NA	< 0.10	105%	50%	140%	81%	60%	130%	100%	50%	140%
Ethylene Dibromide	5916636	5916636	<0.10	<0.10	NA	< 0.10	110%	50%	140%	91%	60%	130%	119%	50%	140%
Tetrachloroethylene	5916636	5916636	<0.20	<0.20	NA	< 0.20	102%	50%	140%	85%	60%	130%	119%	50%	140%
1,1,1,2-Tetrachloroethane	5916636	5916636	<0.10	<0.10	NA	< 0.10	109%	50%	140%	88%	60%	130%	120%	50%	140%
Chlorobenzene	5916636	5916636	<0.10	<0.10	NA	< 0.10	113%	50%	140%	83%	60%	130%	115%	50%	140%
Ethylbenzene	5916636	5916636	<0.10	<0.10	NA	< 0.10	99%	50%	140%	78%	60%	130%	110%	50%	140%
m & p-Xylene	5916636	5916636	<0.20	<0.20	NA	< 0.20	105%	50%	140%	81%	60%	130%	116%	50%	140%
Bromoform	5916636	5916636	<0.10	<0.10	NA	< 0.10	113%	50%	140%	87%	60%	130%	100%	50%	140%
Styrene	5916636	5916636	<0.10	<0.10	NA	< 0.10	92%	50%	140%	66%	60%	130%	91%	50%	140%
1,1,2,2-Tetrachloroethane	5916636	5916636	<0.10	<0.10	NA	< 0.10	98%	50%	140%	107%	60%	130%	112%	50%	140%
o-Xylene	5916636	5916636	<0.10	<0.10	NA	< 0.10	109%	50%	140%	82%	60%	130%	99%	50%	140%
1,3-Dichlorobenzene	5916636	5916636	<0.10	<0.10	NA	< 0.10	118%	50%	140%	86%	60%	130%	90%	50%	140%
1,4-Dichlorobenzene	5916636	5916636	<0.10	<0.10	NA	< 0.10	112%	50%	140%	83%	60%	130%	105%	50%	140%
1,2-Dichlorobenzene	5916636	5916636	<0.10	<0.10	NA	< 0.10	117%	50%	140%	82%	60%	130%	98%	50%	140%
n-Hexane	5916636	5916636	<0.20	<0.20	NA	< 0.20	90%	50%	140%	95%	60%	130%	64%	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

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AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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TEL (905)712-5100
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http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T159922

PROJECT: 230581

ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

Water Analysis

RPT Date: Jun 13, 2024			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	5915252		1.4	1.4	NA	< 1.0	100%	70%	130%	100%	80%	120%	105%	70%	130%
Dissolved Arsenic	5915252		2.3	2.2	NA	< 1.0	94%	70%	130%	100%	80%	120%	103%	70%	130%
Dissolved Barium	5915252		83.3	78.7	5.7%	< 2.0	94%	70%	130%	96%	80%	120%	109%	70%	130%
Dissolved Beryllium	5915252		<0.50	<0.50	NA	< 0.50	101%	70%	130%	119%	80%	120%	121%	70%	130%
Dissolved Boron	5915252		112	108	3.6%	< 10.0	100%	70%	130%	127%	80%	120%	116%	70%	130%
Dissolved Cadmium	5915252		<0.20	<0.20	NA	< 0.20	102%	70%	130%	103%	80%	120%	105%	70%	130%
Dissolved Chromium	5915252		<2.0	<2.0	NA	< 2.0	98%	70%	130%	102%	80%	120%	106%	70%	130%
Dissolved Cobalt	5915252		1.25	1.71	NA	< 0.50	93%	70%	130%	106%	80%	120%	101%	70%	130%
Dissolved Copper	5915252		<1.0	<1.0	NA	< 1.0	97%	70%	130%	100%	80%	120%	93%	70%	130%
Dissolved Lead	5915252		<0.50	<0.50	NA	< 0.50	96%	70%	130%	92%	80%	120%	92%	70%	130%
Dissolved Molybdenum	5915252		5.40	5.72	5.8%	< 0.50	102%	70%	130%	95%	80%	120%	99%	70%	130%
Dissolved Nickel	5915252		6.4	5.2	20.7%	< 1.0	95%	70%	130%	99%	80%	120%	101%	70%	130%
Dissolved Selenium	5915252		<1.0	<1.0	NA	< 1.0	100%	70%	130%	97%	80%	120%	109%	70%	130%
Dissolved Silver	5915252		<0.20	<0.20	NA	< 0.20	92%	70%	130%	88%	80%	120%	88%	70%	130%
Dissolved Thallium	5915252		<0.30	<0.30	NA	< 0.30	97%	70%	130%	86%	80%	120%	95%	70%	130%
Dissolved Uranium	5915252		<0.50	<0.50	NA	< 0.50	103%	70%	130%	103%	80%	120%	110%	70%	130%
Dissolved Vanadium	5915252		8.30	8.62	3.8%	< 0.40	96%	70%	130%	112%	80%	120%	110%	70%	130%
Dissolved Zinc	5915252		<5.0	9.3	NA	< 5.0	96%	70%	130%	102%	80%	120%	101%	70%	130%
Mercury	5916601	5916601	<0.02	<0.02	NA	< 0.02	99%	70%	130%	106%	80%	120%	97%	70%	130%
Chromium VI	5906117		<2.000	<2.000	NA	< 2	103%	70%	130%	97%	80%	120%	94%	70%	130%
Cyanide, WAD	5916601	5916601	<2	<2	NA	< 2	98%	70%	130%	89%	80%	120%	107%	70%	130%
Dissolved Sodium	5915252		246000	267000	8.2%	< 50	97%	70%	130%	96%	80%	120%	86%	70%	130%
Chloride	5906137		56300	56100	0.4%	< 100	98%	70%	130%	101%	80%	120%	102%	70%	130%
Electrical Conductivity	5916515		628	662	5.3%	< 2	106%	90%	110%						
pH	5916515		7.55	7.61	0.8%	NA	99%	90%	110%						

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.
QA Qualifier for metals – Dissolved Boron: For a multi-element scan for lab control standards and matrix spikes, up to 10% of analytes may exceed the quoted limits by up to 10% absolute and it is considered acceptable.

Certified By: Iris Verástegui

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CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 24T159922

PROJECT: 230581

ATTENTION TO: Peter Markesic

RPT Date: Jun 13, 2024

PARAMETER	Sample Id	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 (Water)										
Dissolved Boron		100%	70%	130%	127%	80%	120%	116%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.
QA Qualifier for metals – Dissolved Boron: For a multi-element scan for lab control standards and matrix spikes, up to 10% of analytes may exceed the quoted limits by up to 10% absolute and it is considered acceptable.

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Method Summary

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ATTENTION TO: Peter Markesic

SAMPLING SITE:127 Plains Road West

SAMPLED BY:GG & BS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
2-and 1-methyl Napthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Sediment			N/A
Polychlorinated Biphenyls	ORG-91-5112	modified from EPA SW-846 3510 & 8082A	GC/ECD
Decachlorobiphenyl	ORG-91-5112	modified from EPA SW-846 3510 & 8082A	GC/ECD
Benzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Toluene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Ethylbenzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
m & p-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
o-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Xylenes (Total)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F1 (C6 to 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
Toluene-d8	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34) minus PAHs	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 5030B & EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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

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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-93-6073	modified from SM 3500-CR B	LACHAT FIA
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Dissolved Sodium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP/MS
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

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Have feedback? Scan here for a quick survey!

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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 Markesic
Address: 401 Grays Road.
Phone: Fax:
Reports to be sent to:
1. Email: pmarkesic@soilmat.ca
2. Email: ggilmour@soilmat.ca

Project Information:

Project: 230581
Site Location: 127 Plains Road West
Sampled By: GG & BS
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:

(Please check all applicable boxes)

☒ Regulation 153/04 — Table 1 (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine
☐ Regulation 406 — Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
☐ Regulation 558
☐ CCME
☐ Sewer Use ☐ Sanitary ☐ Storm — Region
☐ Prov. Water Quality Objectives (PWQO)
☐ Other (Indicate One)

Is this submission for a Record of Site Condition (RSC)? ☐ Yes ☐ No

Report Guideline on Certificate of Analysis ☐ Yes ☐ No

☐ **Legal Sample**

Sample Matrix Legend

GW	Ground Water	**SD**	Sediment
O	Oil	**SW**	Surface Water
P	Paint	**R**	Rock/Shale
S	Soil		

Laboratory Use Only

Work Order #: 24T159922
Cooler Quantity: 3 large
Arrival Temperatures: 4.9 | 6.3 | 6.5
~~Depot~~ Temperatures: 6.0 | 6.1 | 6.3
Custody Seal Intact: ☐ Yes ☐ No ☒ N/A
Notes: 3.5, 5.9, 6.3, Loose ice

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 CSR

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs	VOC	PAHs	PCBs: Arocolors ☐	O. Reg 406: Regulation 406 Characterization Package pH, Metals, BTEX, F1-F4	EC, SAR	Regulation 406 SPLP Rainwater Leach mSPLP: ☐ Metals ☐ VOCs ☐ SVOCs ☐ OC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW1-S1	6/6/24	AM PM	15	GW			X		X		X	X						
2. MW1-S1A	↓	AM PM	3	↓						X								
3. MW2-S1		AM PM	15				X		X		X	X						
4. MW2-S1A		AM PM	3							X								
5. MW3-S1		AM PM	15				X		X		X	X						
6. MW3-S1A		AM PM	3							X								
7. MW4-S1		AM PM	15				X		X		X	X						
8. MW4-S1A		AM PM	3							X								
9. MW5B-S1		AM PM	15				X		X		X	X						
10. MW5B-S1A		AM PM	3							X								
11. MW6-S1	↓	AM PM	15	↓			X		X		X	X						

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
G. Gilmour	6/6/24	3:45pm		June 7	4:40pm
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page _____ of _____

Nº: T-157723

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Document ID: DM-78-1511-0224

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AGAT Laboratories

Have feedback? Scan here for a quick survey!

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 Markesic
Address: 401 Grays Road.

Phone: Fax:

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

Project Information:

Project: 230581
Site Location: 127 Plains Road West
Sampled By: GG & BS
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:

(Please check all applicable boxes)

☒ Regulation 153/04
Table 1 *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture

Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Regulation 406
Table _____ *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture

☐ Regulation 558
☐ CCME

☐ Sewer Use
☐ Sanitary ☐ Storm
_____ *Region*

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
_____ *Indicate One*

Is this submission for a Record of Site Condition (RSC)? ☐ Yes ☐ No

Report Guideline on Certificate of Analysis ☐ Yes ☐ No

Legal Sample ☐

Sample Matrix Legend

GW	Ground Water	**SD**	Sediment
O	Oil	**SW**	Surface Water
P	Paint	**R**	Rock/Shale
S	Soil		

Laboratory Use Only

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

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

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

OR Date Required (Rush Surcharges May Apply):

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

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	O. Reg 153: VOC	O. Reg 153: PAHs	O. Reg 153: PCBs: Aroclors ☐	O. Reg 406: Regulation 406 Characterization Package	O. Reg 406: pH, Metals, BTEX, F1-F4	O. Reg 406: EC, SAR	O. Reg 406: Regulation 406 SPLP Rainwater Leach mSPLP: ☐ Metals ☐ VOCs ☐ SVOCs ☐ DOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs TCLP:	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW6-S1A	6/6/24	AM PM	3	GW						X									
2. DUP1	↓	AM PM	15	↓			X		X		X	X							
3. DUP1A	↓	AM PM	3	↓						X									
4.		AM PM																	
5.		AM PM																	
6.		AM PM																	
7.		AM PM																	
8.		AM PM																	
9.		AM PM																	
10.		AM PM																	
11.		AM PM																	

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
G. Gilmour	6/6/24	3:45pm	[illegible]	JUN 7	4:40pm
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

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Date Issued: Jan 18, 2024

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 401 Grays Road in Hamilton, Ontario.

REPORT AUTHORS

Geena Gilmour, B.A.
Environmental Technician

Ms. Gilmour has over six months of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Ms. Gilmour has also been a key project member on a number of site 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.

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.

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 CACHET DEVELOPMENTS INC. 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.