PROJECT NO.: SM 190711-E

JANUARY 29, 2021

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
2170 POSTMASTER DRIVE
OAKVILLE, ONTARIO

PREPARED FOR:

BRANTHAVEN DEVELOPMENT CORP.

Soil-Mat

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
130 LANCING DRIVE
HAMILTON, ONTARIO
L8W 3A1

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SOIL-MAT ENGINEERS & CONSULTANTS LTD.

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PROJECT NO.: SM 190711-E JANUARY 29, 2021

BRANTHAVEN DEVELOPMENT CORP.
720 Oval Court
Burlington, Ontario
L7L 6A9

Attention: Mr. Anthony Girolami
Project Manager

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
2170 POSTMASTER DRIVE
OAKVILLE, ONTARIO

Dear Mr. Girolami,

1.0 EXECUTIVE SUMMARY

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by BRANTHAVEN DEVELOPMENT CORP. to undertake Phase Two Environmental Site Assessment [ESA] activities on the above captioned property.

A Phase One ESA 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 190711-E dated November 8, 2019]. The Phase One ESA research revealed one potentially contaminating activity [PCA] on the Phase One ESA property, including the following:

- The Ontario Inventory of PCB Storage Sites lists a minor storage Site within the same Lot and Concession number as the Site with the owner of the PCB Storage Site being the same as a previous owner of the Site;

The Phase Two ESA fieldwork included the advancement of eight [8] boreholes on the Phase Two Property in conjunction with a Geotechnical Investigation, undertaken on the Site by SOIL-MAT ENGINEERS, to facilitate the collection and submission of select soil samples for laboratory analytical testing for PCBs.

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

- The laboratory analytical test results for all of the submitted soil samples are all below the applicable Ontario Regulation 153/04 [as amended] Table 3 Residential/ Parkland/ Institutional [RPI] property use Site Conditions Standards [SCSs] for the tested parameters.

- In addition, when compared to the Table 2 RPI SCSs, the laboratory analytical test results for all of the submitted soil samples are all below the applicable Ontario Regulation 153/04 [as amended] Table 2 RPI SCSs for the tested parameters.

All of the laboratory analytical test results for the secured soil samples meet the applicable Ontario Regulation 153/04 [as amended] Table 3 RPI SCSs. As such, it is the opinion of SOIL-MAT ENGINEERS that the Phase Two Property is suitable for a residential development and that a Record of Site Condition [RSC] can be filed in support of such. Although, it is noted that the proposed residential development is NOT subject to a mandatory RSC filing based on the current and proposed land use.

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.

2.0 INTRODUCTION

SOIL-MAT ENGINEERS were retained by BRANTHAVEN DEVELOPMENT CORP. to undertake a Phase Two ESA on the above captioned property. It is noted that the Phase Two ESA activities were undertaken in accordance with Ontario Regulation 153/04 [as amended].

A Phase One ESA 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 190711-E dated November 8, 2019].

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

The Site is comprised of an irregular shaped parcel of vacant, undeveloped land on the northwest corner of Postmaster Drive and Westoak Trails Boulevard in the Town of Oakville, Ontario. For descriptive purposes, Postmaster Drive has been designated as having a north-south alignment.

At the time of this Report, the Site was comprised of a vacant parcel of undeveloped land consisting primarily of grass covered lands and some low lying weeds and shrubs.

The Site was bounded to the north and west by existing residential lands, to the east by Postmaster Drive and to the south by Westoak Trails Boulevard.

The Site is recognised with the municipal address of '2170 Postmaster Drive, Oakville, Ontario'. The property identification number [PIN] is '24925 -2027'.

The area of the Site is 1.1727 hectares in total.

2.0 (ii) PROPERTY OWNERSHIP

At the time of our Phase One ESA Report, the Site was owned by The Roman Catholic Episcopal Corporation of the Diocese of Hamilton in Ontario. However, as noted in the preamble of this Report, SOIL-MAT ENGINEERS were retained by BRANTHAVEN DEVELOPMENT CORP. to undertake the Phase Two ESA activities on the Site in support of a proposed residential development.

The contact information for our Client is provided below:

1. Contact Name: Mr. Anthony Girolami
2. Mailing Address: 720 Oval Court, Burlington, Ontario, L7L 6A9
3. Contact e-mail: agirolami@branthaven.com
4. Contact Phone: 905-333-8364

2.0 (iii) CURRENT AND PROPOSED FUTURE USE

Current Use: Agricultural
Proposed Use: Residential

Based on the current use and the proposed use of the Site, the proposed development is not subject to a mandatory RSC filing.

2.0 (iv) APPLICABLE SITE CONDITION STANDARDS

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

- Current land use: Agricultural;
- Intended land use: Residential;
- Drinking Water Supply: Non-Potable Ground Water;
- On-site Soil Texture: Coarse Grained Soils;
- Depth to Bedrock: 1.8 to 2.3 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 SCSs are the Table 3 Standards for a 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). The applicable site condition standards are 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 and retail commercial properties.

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

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

The project area is relatively flat and level with surface water being directed to the east towards Postmaster Drive as well as towards the southwest corner of the Site to an on-site catch basin.

3.0 (ii) PAST INVESTIGATIONS

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

1. Phase One Environmental Site Assessment, 2170 Postmaster Drive, Oakville, Ontario, dated November 8, 2019: prepared for Branthaven Development Corp. [Attention: Mr. Anthony Girolami].

The November 8, 2019 Phase One ESA report revealed one potentially contaminating activity [PCA] on the Phase One Property, including the following:

- The Ontario Inventory of PCB Storage Sites lists a minor storage Site within the same Lot and Concession number as the Site with the owner of the PCB Storage Site being the same as a previous owner of the Site.

The lands in the general vicinity of the Site are comprised primarily of a mixture of residential and commercial lands that based on the information currently available to SOIL-MAT ENGINEERS are not anticipated to have an adverse environmental impact on the Site.

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

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	Throughout the Site.	Other. A PCB Storage Site	On-Site	PCBs	Soil

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

In addition to the above, SOIL-MAT ENGINEERS contacted the Town of Oakville to request a copy of previous environmental reports for the Site that may be on file with the Town. However, the results were not available during the completion of this Report.

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

4.0 SCOPE OF THE INVESTIGATION

4.0 (i) OVERVIEW OF SITE INVESTIGATION

Based on the Phase One ESA findings, three [3] near surface soil samples were secured across the Site to assess the adverse environmental impacts, if any, to the near surface soil as a result of the noted PCA and to delineate the lateral and vertical extent of an adverse impact if encountered. It is noted that our site visit was conducted in conjunction with fieldwork associated with our Geotechnical Investigation of 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 [COPC], in this case being Polychlorinated Biphenyls [PCBs].

4.0 (ii) MEDIA INVESTIGATED

The purpose of the Phase Two ESA was to assess the near surface soil medium on the Phase Two Property. Specifically, in the immediate vicinity of the suspected historical PCB storage identified in our November 8, 2019 Phase One ESA Report.

4.0 (iii) PHASE ONE CONCEPTUAL SITE MODEL

The Phase One ESA property is comprised of an irregular shaped parcel of land on the northwest corner of Postmaster Drive and Westoak Trails Boulevard, recognised with the municipal address of 2170 Postmaster Drive in the Town of Oakville, Ontario.

SOIL-MAT ENGINEERS completed a Phase One ESA on the Site in November of 2019. The information gathered during the completion of this Phase One ESA report revealed that the Site has remained undeveloped. The first readily available visual aid for the Site is a topographic map from 1909 which illustrates the Site as vacant undeveloped land. Other visual aids, including aerial photographs from 1954, 1960, 1978, 1988, 2004, 2013, and 2018 and topographic maps from 1938, 1968, and 1999, confirm the development timeline above.

The lands in the general vicinity of the Site are comprised primarily of residential, and commercial lands that based on the information currently available to SOIL-MAT ENGINEERS are not anticipated to have an adverse environmental impact on the Site.

As a result of the Phase One ESA carried out by SOIL-MAT ENGINEERS for the Site, the following PCA and associated area of potential environmental concern [APEC] was 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	Throughout the Site.	Other. A PCB Storage Site	On-Site	PCBs	Soil

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

4.0 (iv) DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

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

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

4.0 (v) IMPEDIMENTS

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

5.0 INVESTIGATION METHODS

5.0 (i) GENERAL

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

5.0 (ii) DRILLING AND EXCAVATING

All boreholes were advanced using hollow stem continuous flight auger equipment on November 5, 2019, with the physical drilling work being performed by Geo-Environmental Drilling, 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. The boreholes were advanced on the Site using hollow stem augers.

5.0 (iii) SOIL SAMPLING

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

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

The soil samples that were 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 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°C to 10°C. As reported on the chain of custody for the soil samples, the samples were delivered to AGAT with an average temperatures of 9.4°C, and arrived at the lab in Mississauga, Ontario with a final temperature of 6.9°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 for the potential presence of other COPC groupings; such as unusual staining

and/or odours, etc. that may be indicative of petroleum hydrocarbons or volatile organic compounds, etc.

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

5.0 (v) GROUND WATER: MONITORING WELL INSTALLATION

No groundwater wells were installed as part of this Phase Two ESA.

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

Groundwater sampling was not conducted as part of this Phase Two ESA.

5.0 (vii) GROUND WATER: SAMPLING

Groundwater sampling was not conducted as part of this Phase Two ESA.

5.0 (viii) SEDIMENT SAMPLING

Sediment sampling was not conducted as part of the Phase Two ESA activities. The medium investigated was limited to the soil 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 at each specific borehole location until the results of the laboratory analytical testing demonstrated that the subject soil material met the applicable Table 3 RPI SCSs. Once determined that the soil was suitable for use on the site the material was discarded across the property in the vicinity of each borehole.

5.0 (xi) ELEVATION SURVEYING

All boreholes were surveyed by a staff member of SOIL-MAT ENGINEERS to facilitate site relative survey information. A site specific temporary benchmark, described as the top of the catchbasin located on Postmaster Drive just west of the intersection with Westoak Trails Boulevard was used with an assigned elevation of 100.00m.

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:

- TOPSOIL: A surficial veneer of topsoil of approximately 50 to 75 millimetres thickness was encountered at all borehole locations. It is noted that the depth of topsoil may vary across the site and from the borehole locations.
- SILTY CLAY/CLAYEY SILT: Native silty clay / clayey silt was encountered below the topsoil at all borehole locations. The find grained to cohesive soils are reddish brown to red in colour, with a reworked appearance in the upper levels, with trace gravel and sand, and is generally firm to very stiff in consistency. The silty clay/clayey silt was proven to depths of between 1.1 to 2.3 metres below the existing surface.
- QUEENSTON SHALE BEDROCK: Queenston shale bedrock was encountered beneath the native silty clay/clayey silt at all borehole locations at depths of approximately 1.1 to 2.3 metres below the existing grade. The Queenston shale is red in colour, with occasional more resistant grey layers, severely weathered in the upper levels, becoming more sound with depth, and is hard in terms of soil.
- GROUNDWATER: Borehole No. 1 was recorded as 'wet' at a depth of approximately 5.9 metres below the existing grade, while the remaining boreholes were open and 'dry' upon completion of drilling. It is noted that insufficient time would have passed for the static groundwater level to stabilize in the open boreholes. Based on our experience in the area and observations during drilling, the static groundwater level is estimated at depths of approximately 3 to 5 metres below the existing ground surface, although seasonal fluctuations are to be expected.

6.0 (ii) GROUND WATER: ELEVATIONS AND FLOW DIRECTIONS

As mentioned above, based on SOIL-MAT ENGINEERS past work in the area, the static groundwater level is estimated to be in the range of about 3 to 5 metres below the ground surface. Regional groundwater flow is expected to the southeast towards Lake Ontario.

6.0 (iii) GROUND WATER: HYDRAULIC GRADIENTS

As no groundwater monitoring wells were installed, the horizontal hydraulic gradient was not calculated.

6.0 (iv) COARSE SOIL TEXTURE

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

6.0 (v) SOIL: FIELD SCREENING

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

6.0 (vi) SOIL QUALITY

In total, three [3] soil samples were secured from the Site to assess potential adverse impact(s) on the Site as a result of the PCA identified upon the completion of our Phase One ESA.

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

SUMMARY OF TESTED SOIL SAMPLES

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description
BH2-SS1	0 – 0.6	PCBs	Silty Clay / Clayey Silt
BH5-SS1	0 – 0.6	PCBs	Silty Clay / Clayey Silt
BH8-SS1	0 – 0.6	PCBs	Silty Clay / Clayey Silt

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
BH2-SS1	0 – 0.6	PCBs	Silty Clay / Clayey Silt	No exceedances reported
BH5-SS1	0 – 0.6	PCBs	Silty Clay / Clayey Silt	No exceedances reported
BH8-SS1	0 – 0.6	PCBs	Silty Clay / Clayey Silt	No exceedances reported
Notes: PCBs = Polychlorinated Biphenyls				

In all cases, the laboratory analytical test results for the submitted soil samples meet the applicable Table 3 RPI SCSs for the select tested COPC groupings.

The Phase Two Property, borehole locations and laboratory analytical test results are illustrated on Drawing Nos. 2 and 2A 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

Groundwater sampling was not conducted as part of this Phase Two ESA fieldwork.

6.0 (viii) SEDIMENT QUALITY

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

6.0 (ix) QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

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

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

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

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

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

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

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

6.0 (x) PHASE TWO CONCEPTUAL SITE MODEL

A Phase Two Conceptual Site Model was not completed as part of this Phase Two ESA as an RSC is not presently required for this property.

7.0 CONCLUSIONS

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

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

- The laboratory analytical test results for all of the submitted soil samples are all below the applicable Ontario Regulation 153/04 [as amended] Table 3 RPI SCSs.
- In addition, when compared to the Table 2 RPI SCSs, the laboratory analytical test results for all of the submitted soil samples are all below the applicable Ontario Regulation 153/04 [as amended] Table 2 RPI SCSs.

All of the laboratory analytical test results for the soil samples meet the applicable Ontario Regulation [as amended] Table 3 RPI Standards for the noted COPC and as a result it is the opinion of SOIL-MAT ENGINEERS that the Site is suitable for a residential development and that a Record of Site Condition can be filed for the Site. Although, it is noted that the proposed residential development is NOT subject to a mandatory RSC filing based on the current and proposed land use.

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.

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

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

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

Peter Markesic, B.Sc.
Project Manager

Ian Shaw, P.Eng., QP_{ESA}
Review Engineer

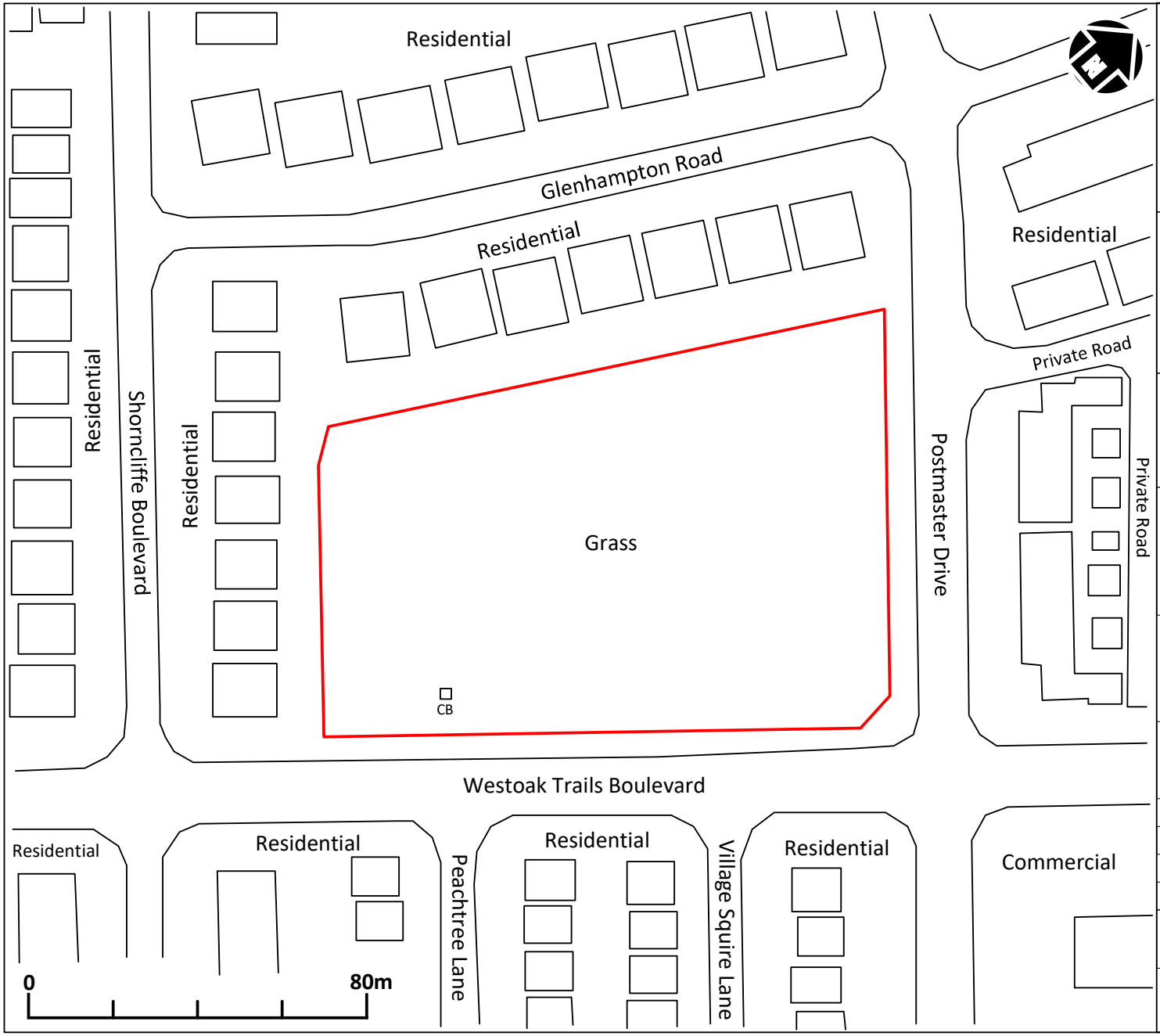
Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Distribution: BRANTHAVEN DEVELOPMENT CORP. [2]

Enclosures:
- Appendix 'A': Site Plan Drawings and Borehole Logs
- Appendix 'B' AGAT Certificate of Analysis
- Appendix 'C' Qualifications of Assessors
- Appendix 'D' Statement of Limitations

Appendix 'A'

1. Drawing No.: 1: Site Plan;
2. Drawing No.: 2: Borehole Location Plan;
3. Drawing No.: 2A: Analytical Data Summary [Soil] PCBs;
4. Borehole Logs



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 190711-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

BRANTHAVEN DEVELOPMENT CORP.

PROJECT TITLE

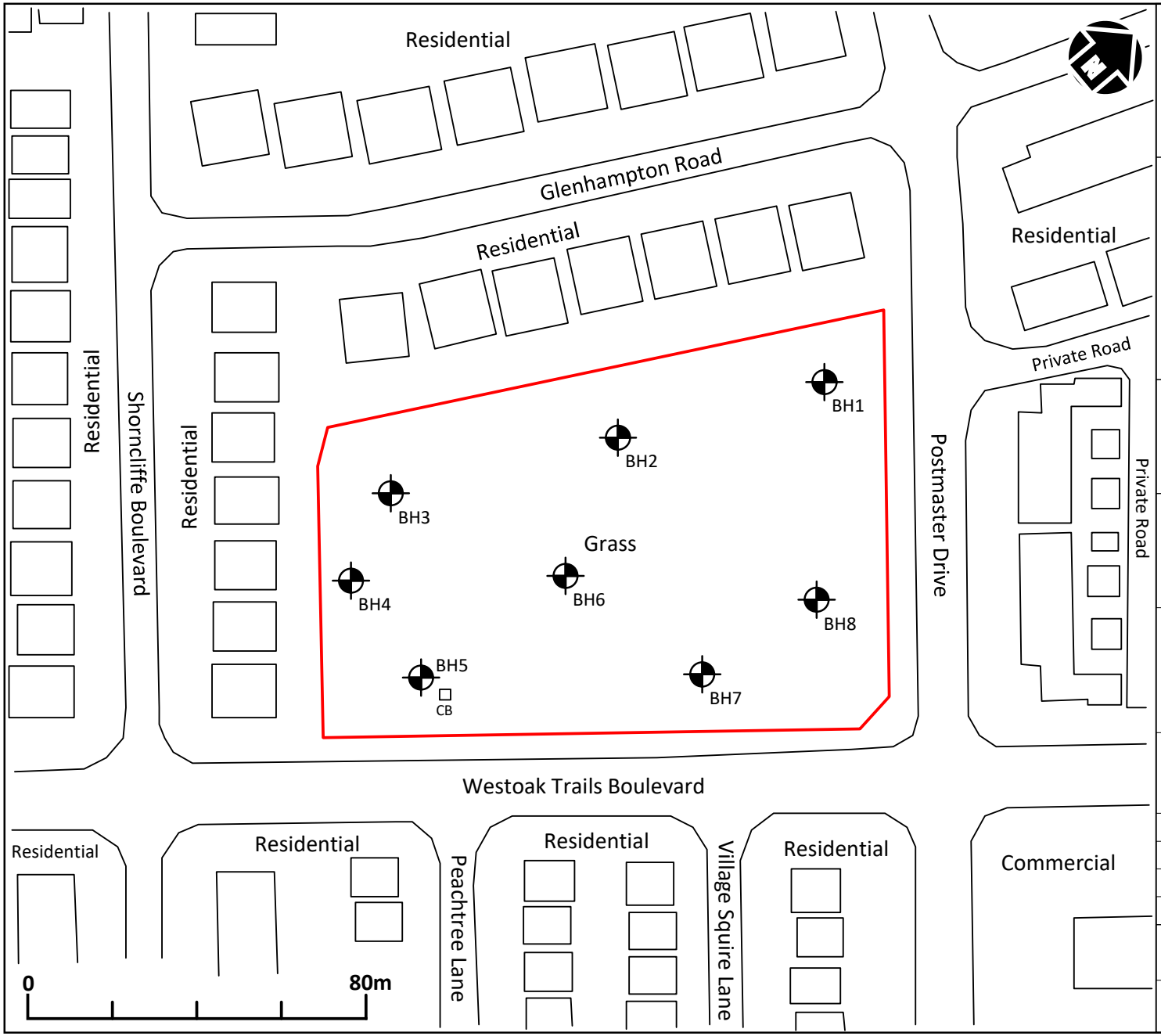
Phase Two Environmental Site Assessment
2170 Postmaster Drive
Oakville, Ontario

DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 190711-E
DATE	November 2019
CHECKED	KG
DRAWN	PM
FILE NAME	190711 Site Plan.vsd

DRAWING No. 1



LEGEND

= Site Boundary

= Borehole Location (BH#)

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 190711-E
2. Sample locations are approximate.
3. Drawing not to scale.

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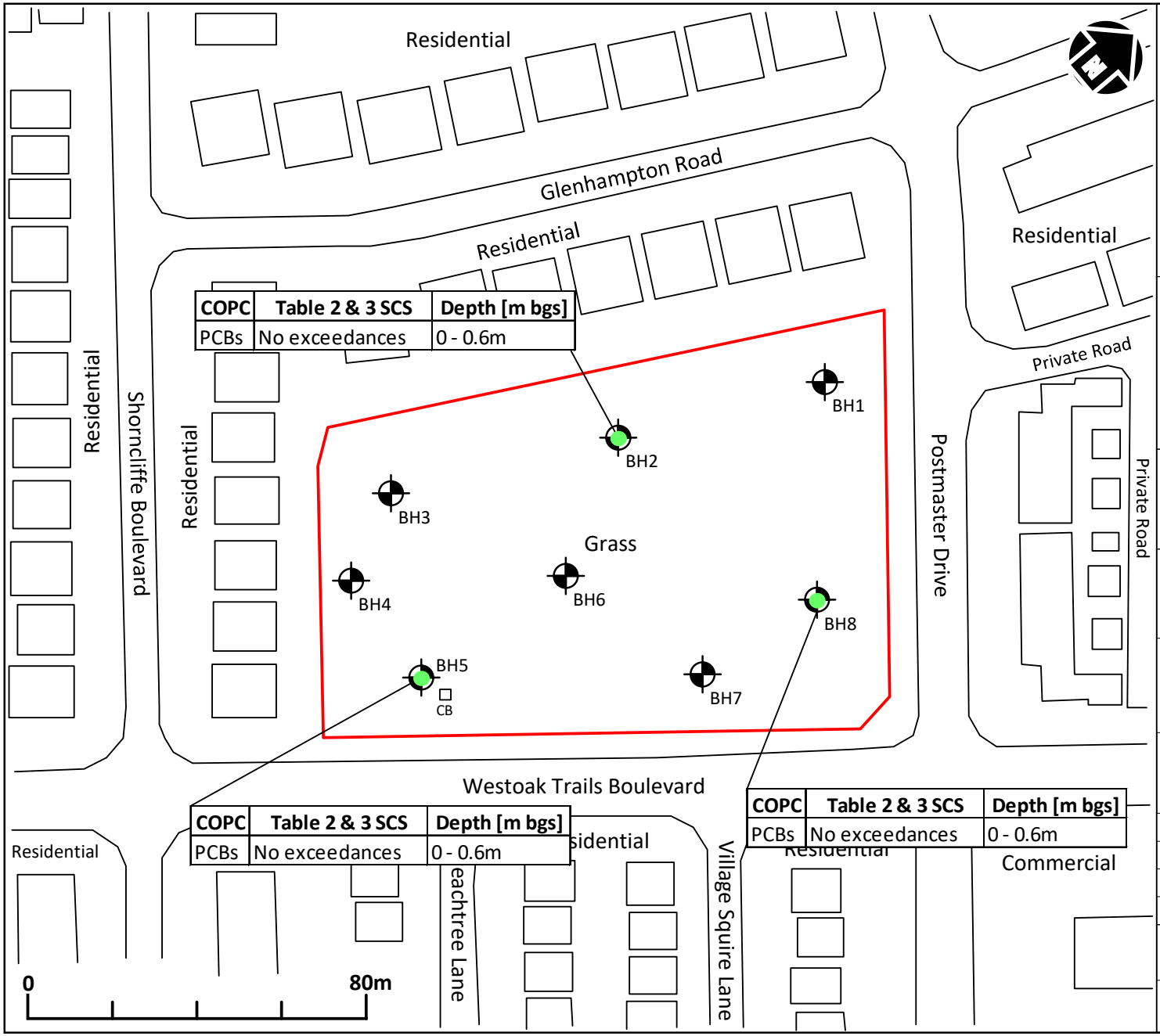
PROJECT TITLE
Phase Two Environmental Site Assessment
2170 Postmaster Drive
Oakville, Ontario

DRAWING TITLE
Borehole Location Plan

PROJECT No.	SM 190711-E
DATE	November 2019
CHECKED	KG
DRAWN	PM
FILE NAME	190711 Borehole Location Plan.vsd

DRAWING No. 2



COPC	Table 2 & 3 SCS	Depth [m bgs]
PCBs	No exceedances	0 - 0.6m

COPC	Table 2 & 3 SCS	Depth [m bgs]
PCBs	No exceedances	0 - 0.6m

COPC	Table 2 & 3 SCS	Depth [m bgs]
PCBs	No exceedances	0 - 0.6m

LEGEND

= Site Boundary

= Borehole Location (BH#)

= 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 190711-E
2. Sample locations are approximate.
3. Drawing not to scale.

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PROJECT TITLE
Phase Two Environmental Site Assessment
2170 Postmaster Drive
Oakville, Ontario

DRAWING TITLE
Analytical Data Summary - PCBs

PROJECT No.	SM 190711-E
DATE	November 2019
CHECKED	KG
DRAWN	PM

FILE NAME
190711 – Drawing 2A – Soil - PCBs.vsd

DRAWING No. 2A

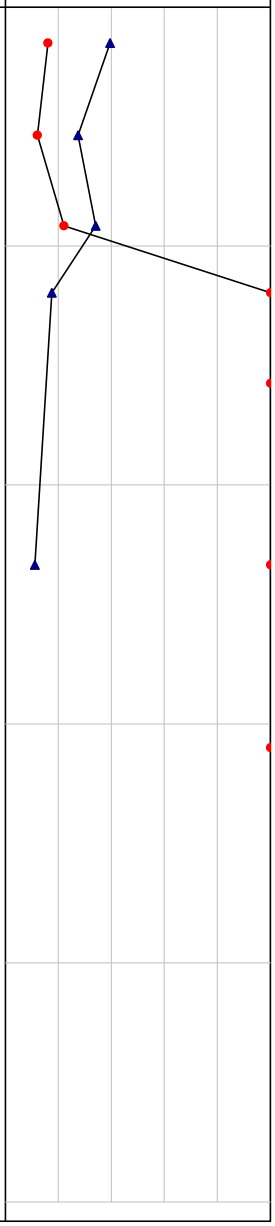
Log of Borehole No. 1

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810323
Client: Branthaven Development Corporation
E: 600928

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	101.32	Ground Surface								
0 / 0		**Topsoil** Approximately 50 millimetres of topsoil.		SS	1	6 9 7 6	16		3.0	
		Silty Clay/Clayey Silt Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, stiff to very stiff.		SS	2	3 6 6 8	12		4.5	
				SS	3	5 8 14 22	22		>4.5	
2 / 1	99.10	**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	50/5"	100			
				SS	5	50/4"	100			
				SS	6	50/5.5"	100			
6 / 2	95.22	End of Borehole		SS	7	50/2"	100			

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



NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 6.1 metres.

2. Borehole was recorded as open until 4.9 metres and 'wet' at a depth of 5.9 metres upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 2

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810278
Client: Branthaven Development Corporation
E: 600912

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
	101.02	Ground Surface								
0 / 0		**Topsoil** Approximately 75 millimetres of topsoil.		SS	1	3 4 4 7	8			
3 / 1		**Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, stiff.		SS	2	7 5 4 5	9		>4.5	
6 / 2	98.80			SS	3	4 4 10 18	14		3.75	
8 / 3		**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	9 50/4"	100			
10 / 3	97.82			SS	5	50/5"	100			
		End of Borehole								

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

NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.2 metres.

2. Borehole was recorded as open until 2.1 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

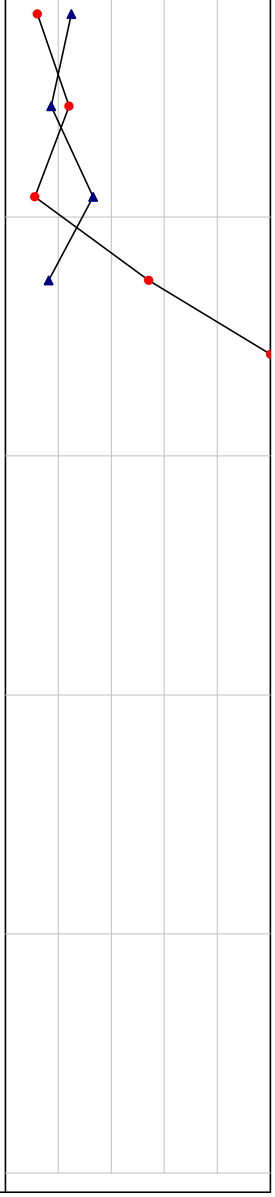
Log of Borehole No. 3

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810226
Client: Branthaven Development Corporation
E: 600889

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	100.82	Ground Surface								
0–3 / 0–1	100.82–98.60	**Topsoil** Approximately 75 millimetres of topsoil. **Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, stiff to very stiff.		SS	1	4 5 7 5	12		>4.5	
				SS	2	6 10 14 14	24		>4.5	
				SS	3	6 6 5 6	11		>4.5	
7–10 / 2–3	98.60–97.62	**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	23 24 30 50/1"	54			
				SS	5	50/5"	100			
10 / 3	97.62	End of Borehole								

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



NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.2 metres.

2. Borehole was recorded as open until 2.4 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

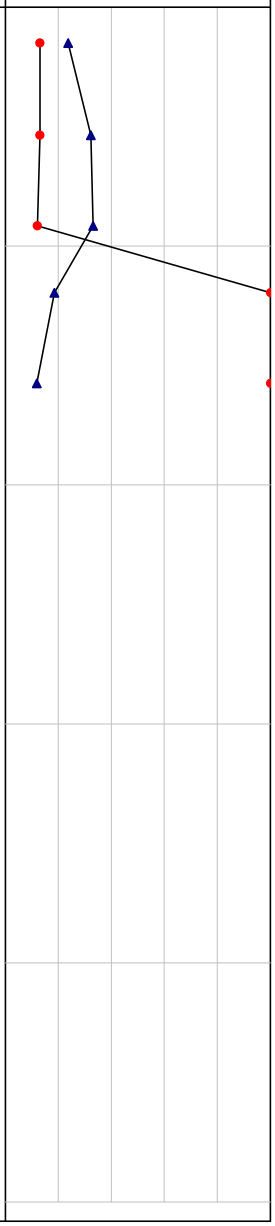
Log of Borehole No. 4

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810205
Client: Branthaven Development Corporation
E: 600898

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
	100.49	Ground Surface								
0 – 1	100.49	**Topsoil** Approximately 50 millimetres of topsoil.		SS	1	1 4 9 6	13		2.0	
1 – 2		**Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, stiff.		SS	2	7 7 6 5	13		3.5	
2				SS	3	3 5 7 9	12		>4.5	
2	98.20	**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	15 21 50/2"	100			
3	97.19			SS	5	34 50/4"	100			
3		End of Borehole								

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



NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.3 metres.

2. Borehole was recorded as open until 2.4 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

Log of Borehole No. 5

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810205
Client: Branthaven Development Corporation
E: 600928

Soil-Mat

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	99.56		Ground Surface								
0 – 3 / 0 – 1			**Topsoil** Approximately 50 millimetres of topsoil.		SS	1	3 3 4 6	7		4.0	
3 – 10 / 1 – 3	98.50		**Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, firm to very stiff.		SS	2	6 12 25 48	37		>4.5	
					SS	3	17 31 50/1"	100			
10 / 3	96.36		**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	50/3"	100			
			End of Borehole								

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

NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.2 metres.

2. Borehole was recorded as open until 2.4 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

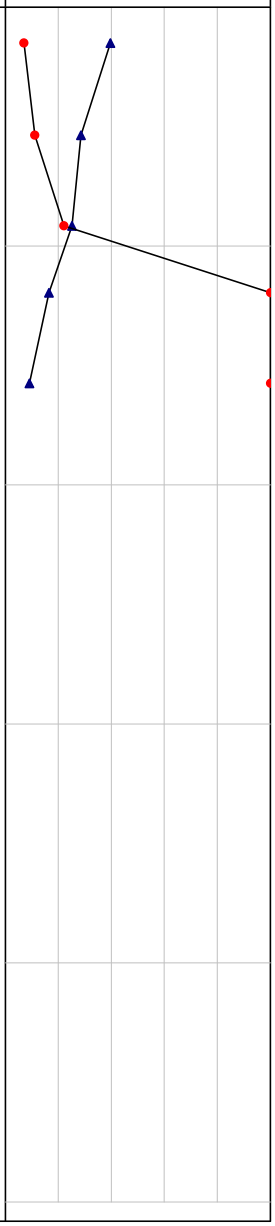
Log of Borehole No. 6

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810247
Client: Branthaven Development Corporation
E: 600929

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	100.55	Ground Surface								
0–2 / 0–0.6		**Topsoil** Approximately 50 millimetres of topsoil.		SS	1	2 3 4 5	7		2.0	
2–7 / 0.6–2.1		**Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance//possible fill in the upper levels, occasional shale fragments, firm to very stiff.		SS	2	7 6 5 6	11		3.0	
				SS	3	3 12 10 13	22		>4.5	
7–10 / 2.1–3.0	98.30	**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	33 50/5"	100			
10–11 / 3.0–3.2	97.35	End of Borehole		SS	5	50/5"	100			

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



NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.2 metres.

2. Borehole was recorded as open until 2.4 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

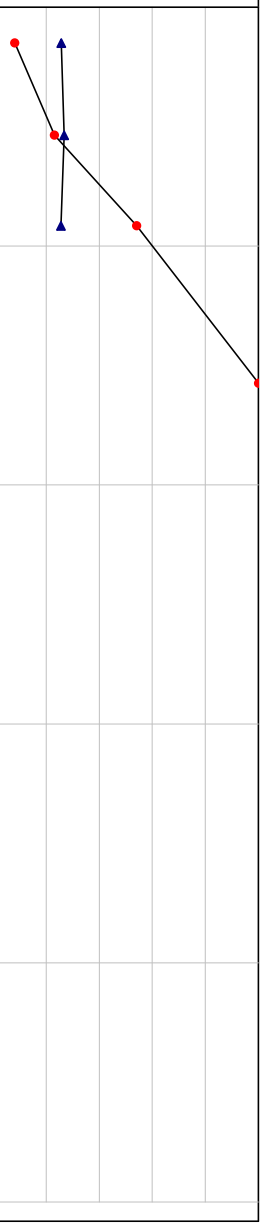
Log of Borehole No. 7

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810258
Client: Branthaven Development Corporation
E: 600970

Soil-Mat

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
	100.22		Ground Surface								
0 / 0			**Topsoil** Approximately 75 millimetres of topsoil.		SS	1	0 4 4 7	8		3.0	
1 / 1			**Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, stiff to very stiff.		SS	2	4 10 13 18	23		>4.5	
2 / 2	98.40		**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	3	15 23 31 50/4"	54			
3 / 3	97.02		End of Borehole		SS	4	50/3"	100			
4 / 5 / 6 / 7 / 8 / 9			NOTES: 1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.2 metres. 2. Borehole was recorded as open until 2.4 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903. 3. Soil samples will be discarded after 3 months unless otherwise directed by our client.								

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



Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
Checked by: AR
Sheet: 1 of 1

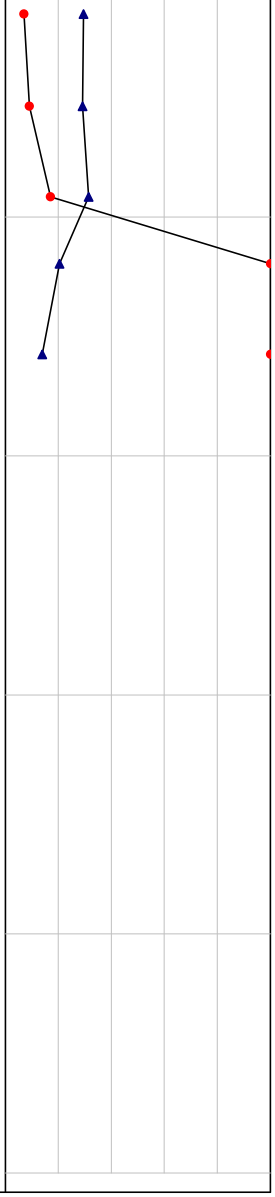
Log of Borehole No. 8

Project No: SM 190712-G
Project Manager: Adam Roemmele, P.Eng.
Project: Proposed Residential Development
Borehole Location: See Drawing No. 1
Location: Westoak Trails Blvd. & Postmaster Dr.
UTM Coordinates - N: 4810290
Client: Branthaven Development Corporation
E: 600975

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	100.45	Ground Surface								
0–2 / 0–1		**Topsoil** Approximately 75 millimetres of topsoil.		SS	1	0 3 4 4	7			
2–7 / 1–2		**Silty Clay/Clayey Silt** Brownish red to red, trace gravel and sand, 'reworked' appearance/possible fill in the upper levels, occasional shale fragments, firm to very stiff.		SS	2	5 4 5 6	9		3.25	
				SS	3	4 7 10 12	17		3.25	
7–10 / 2–3	98.20	**Queenston Shale** Red, with occasional harder grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	4	14 50/5"	100			
	97.25			SS	5	50/3"	100			
11 / 3		End of Borehole								

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



NOTES:

1. Borehole was advanced using solid stem auger equipment on November 5, 2019 to termination at a depth of 3.2 metres.

2. Borehole was recorded as open until 2.4 metres and 'dry' upon completion and backfilled as per Ontario Regulation 903.

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

Drill Method: Hollow Stem Augers
Drill Date: November 5, 2019
Hole Size: 150 millimetres
Drilling Contractor: Geo-Environmental Drilling

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

Datum: Temporary Benchmark
Field Logged by: MC
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
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 190712

AGAT WORK ORDER: 19H540607

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

DATE REPORTED: Nov 07, 2019

PAGES (INCLUDING COVER): 5

VERSION*: 1

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

*NOTES

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

AGAT Laboratories

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: 19H540607

PROJECT: 190712

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

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

DATE RECEIVED: 2019-11-06

DATE REPORTED: 2019-11-07

		SAMPLE DESCRIPTION:		BH2 SS1	BH5 SS1	BH8 SS1
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2019-11-05	2019-11-05	2019-11-05
Parameter	**Unit**	**G / S**	**RDL**	**689744**	**689767**	**689768**
Polychlorinated Biphenyls	µg/g	0.3	0.1	<0.1	<0.1	<0.1
Moisture Content	%		0.1	13.2	15.2	14.5
Surrogate	**Unit**	**Acceptable Limits**				
Decachlorobiphenyl	%	60-140		96	104	108

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

689744-689768 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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 19H540607

PROJECT: 190712

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Nov 07, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PCBs (Soil)															
Polychlorinated Biphenyls	684113		< 0.1	< 0.1	NA	< 0.1	94%	60%	140%	90%	60%	140%	87%	60%	140%

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

Certified By:

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 19H540607

PROJECT: 190712

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Polychlorinated Biphenyls	ORG-91-5113	EPA SW-846 3541 & 8082A	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541 & 8082A	GC/ECD
Moisture Content		MOE E3139	BALANCE

1 Lg BLK

AGAT Laboratories RUSH!

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

Chain of Custody Record

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

Laboratory Use Only

Work Order #: 19H540607

Cooler Quantity: LG Cooler

Arrival Temperatures: 9.0 | 9.2 | 9.8
LT 8.4 | 6.5 | 5.7

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ON ICE

Report Information:

Company: SOIL - MAT ENGINEERS
Contact: PETER MANLESIC
Address: 130 LANCING DR
HAMILTON, ONT L8W 3A1
Phone: 905-318-7440 Fax:
Reports to be sent to:
1. Email: PMANLESIC@SOILMAT.CA
2. Email: RKEILEN@SOILMAT.CA

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

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

Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm

Region _____ (Indicate One)
☐ MISA

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

_____ (Indicate One)

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

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

Turnaround Time (TAT) Required:

Regular TAT ☐ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

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

OR Date Required (Rush Surcharges May Apply):

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: 190712
Site Location:
Sampled By:
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides))	O. Reg 153: ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	O. Reg 153: Volatiles: ☐ VOC ☐ BTEX ☐ THM	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs: ☒ Total ☐ Arocolors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
BH2 SS1	NOV 5/19		1												X					
BH5 SS1	↓		1												X					
BH8 SS1	↓		1												X					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
STEVE ESTRIS	NOV 6	2:55	Daniella Jaic	NOV 6/19	2:55pm
			MANOS JOHN	NOV 7/19	10:15

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Appendix 'C'

1. Qualifications of Assessors

COMPANY BACKGROUND

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

REPORT AUTHORS

Peter Markesic, B.Sc.
Environmental Project Manager

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

Ian Shaw, P. Eng.
[Director/ Senior Professional]

Mr. Shaw has over fourteen years of experience in the geotechnical and geo-environmental fields. Mr. Shaw has supervised the geotechnical investigations for the replacement/rehabilitation of bridge/culvert structures located within the Haldimand County, numerous residential and industrial subdivision projects, slope stability assignments associated with Hamilton Conservation Authority and Conservation Halton requirements, and several high rise developments in Hamilton, Burlington, Oakville, Brantford, St. Catharines, and Niagara Falls. Mr. Shaw has also been involved in numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects. Some of Mr. Shaw's projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

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

Appendix 'D'

1. Statement of Limitations

REPORT LIMITATIONS

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

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

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

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of the BRANTHAVEN DEVELOPMENT CORP. 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.