



# **Soil Engineers Ltd.**

CONSULTING ENGINEERS

**GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE**

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**TOWN OF CALEDON  
PLANNING  
RECEIVED**

**January 31, 2025**

**A REPORT TO  
GLOBAL PROPERTIES INC.**

**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CSA STANDARD**

**PROPOSED DEVELOPMENT**

**12561 CENTREVILLE CREEK ROAD  
TOWN OF CALEDON**

**Reference No. 2411-E015**

**January 27, 2025**

**DISTRIBUTION**

3 Copies - Global Properties Inc.



## **EXECUTIVE SUMMARY**

Soil Engineers Ltd. (SEL) was retained by Global Properties Inc. to carry out Phase II Environmental Site Assessment (Phase II ESA) in accordance with the Canadian Standards Association (CSA) Standard CSA Z769-00 for a property located at 12561 Centreville Creek Road, Town of Caledon (hereinafter referred to as “the subject site”).

The purpose of the Phase II ESA was to determine the soil and groundwater quality at the subject site, as related to the environmental concerns identified in Pinchin Phase I Environmental Site Assessment (Phase I ESA), Reference No. 325252, dated June 6, 2023. The Phase II ESA was conducted in accordance with the Canadian Standard Association (CSA) Standard Z796.00 (R2013)-Phase II Environmental Site Assessment.

The field work was performed at selected locations on the subject site and soil samples were collected and submitted for chemical analysis. Soil analytical results were compared with the Ministry of the Environment Conservation and Parks (MECP) Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition (Table 8 Standards) for soil samples collected within 30 m of waterbody and Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional/ property use and for coarse textured soils (Table 2 Standards) for soil samples collected beyond 30 m of waterbody, as published in the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (EPA), dated April 15, 2011.

A review of the analytical test results of the soil samples at the test locations meet the Table 8 Standards and Table 2 Standards. No further environmental investigation is recommended at this time.

Please note that the information supplied by this report, and its format do not meet all the requirements as set out in the O. Reg. 153/04, as amended. Therefore, this report cannot be



used in support of a filing of a Record of Site Condition (RSC) with the Environmental Site Registry (ESR) of the Ministry of the Environment, Conservation and Parks (MECP). If there is intent to file an RSC, a Phase One and Phase Two ESA in accordance with all the requirements of the O. Reg. 153/04, as amended, must be completed prior to submission of an RSC.



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## 1.0 **INTRODUCTION**

Soil Engineers Ltd. (SEL) was retained by Global Properties Inc. to carry out a Phase II Environmental Site Assessment (Phase II ESA) in accordance with the Canadian Standards Association (CSA) Standard CSA-Z769-00 for a property located at 12561 Centreville Creek Road, Town of Caledon (hereinafter referred to as “the subject site”).

The purpose of the Phase II ESA was to determine the soil and groundwater quality at the subject site, as related to the environmental concerns identified in Pinchin Phase I Environmental Site Assessment (Phase I ESA), Reference No. 325252, dated June 6, 2023.

The Phase II ESA was conducted in accordance with the Canadian Standard Association (CSA) Standard Z796.00 (R2013)-Phase II Environmental Site Assessment.

### 1.1 **Site Description**

The subject site, as shown on the Site Location Plan, Drawing No.1, is located 12561 Centreville Creek Road, Town of Caledon. The Property Identification Number (PIN) is 14348-0156 (LT). The legal description of the subject site from the Parcel Register is PT LT 3 CON 3 ALBION AS IN RO717465; TOWN OF CALEDON.

The subject site is irregular rectangular in shape, encompassing an approximate area of 40 hectare (ha) (99 acres (ac)). At the time of the assessment, the subject site was farm land with dairy farm, residential building and agricultural outbuildings on site. The subject site is situated in an area that predominantly consists of residential and agricultural area in the Town of Caledon. Neighbouring properties consists of agricultural land to the north, east and west; and residential structures and agricultural land to the south and southwest of the subject site.

The ground surface at the subject site is relatively flat and descends towards east.



## 1.2 **Background**

PINCHIN conducted a Phase I ESA (Reference No. 325252, dated June 6, 2023) in accordance with the CSA Standard CSA Z768-01 for the subject site. The following potential environmental concerns were identified in the Phase I ESA:

- Potential use of pesticides during current and historical agricultural activities at the majority of the subject site.
- Presence of above ground fuel tank at the basement of the residential building located at the western/southwestern portion of the subject site.
- Potential spill occurrences associated with the current and historical diesel aboveground storage tank used for fuelling farm equipment (located northwest of Site Building I), located at western/northwestern portion of the subject site.
- Potential presence of fill material of unknown quality at the former pond area located immediately northeast of Site Building D, western/northwestern portion of the subject site.
- Potential presence of fill material of unknown quality at the former pond area located northern/northwestern portion of the subject site.

## 1.3 **Objective**

The objective of the Phase II ESA is to assess the soil quality at the subject site, as related to the environmental concerns identified in the Pinchin Phase I ESA.

## 1.4 **Scope of Work**

This Phase II ESA was conducted in general conformance with the CSA Standard Z769-00 (R2013). The scope of work for the investigation includes:

- Advance six (6) boreholes (designated as BH1 to BH6) to a maximum depth of 2.1 meters below grade surface (mbgs) and carryout four (4) hand dug test pits (designated as TP1 to TP4) to a depth of 0.3 mbgs.



- Collect representative soil samples from the sampling locations.
- Undertake field examination of the retrieved soil samples for visual and olfactory evidence of potential contamination.
- Undertake soil vapour measurements for the retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode.
- Carry out analytical testing program on selected soil samples including Quality Assurance and Quality Control (QA/QC) samples for analysis of Organochlorine Pesticides (OCs), Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons (PHCs), Benzene, Toluene, Ethylbenzene, Xylene (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Metals and pH parameters.
- Review analytical testing results of submitted soil samples using applicable Site Condition Standards.
- Prepare a Phase II ESA report containing the findings of the field investigation and analytical results.





## 2.0 APPLICABLE SITE CONDITION STANDARDS

SEL has selected the applicable assessment criteria from Ontario Regulation (O. Reg.) 153/04, as amended, made under the Environmental Protection Act to assess the analytical data from the submitted soil samples. The following information was used to select the appropriate criteria:

- The Phase II Property is not considered to be sensitive based on the definition set forth in O. Reg. 153/04, as amended, including O. Reg. 511/09, as the property is not within 30 meters (m) of an area of natural significance and the analytical testing indicated the pH of the tested surface soil samples is between 5 and 9;
- The property is not a shallow soil property, as the bedrock was not encountered within 2.0 m below ground surface (mbgs) during the investigation.
- North/northeastern portion of waterbody is located within 30 from the subject site boundary.
- Full Depth Generic site condition and Generic Site Condition Standards for Use within 30 m of a Water Body criteria are to be used in this assessment
- The intended property use of the proposed development at the subject site was unknown at the time of the report preparation. Therefore, residential property use has been applied.
- Water wells are located within the subject site and within 250 m of the subject site.
- No grain size analysis has been performed and, therefore, coarse textured soils are applied.

Based on the above information, Soil analytical results were compared with the Ministry of the Environment Conservation and Parks (MECP) Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition (Table 8 Standards) for soil samples collected within 30 m of waterbody and Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional/ property use and for coarse textured soils (Table 2



Standards) for soil samples collected beyond 30 m of waterbody, as published in the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (EPA), dated April 15, 2011.



### 3.0 **FIELDWORK**

The field work for this investigation was conducted on October 23, 2024, consisting of six (6) boreholes to a maximum depth of 2.1 mbgs and four hand dug test pits to depths ranging from 0 to 0.3 mbgs. The locations of the boreholes shown on Drawing No. 2 were placed in the area of the environmental concerns listed in the Section 1.2. The rationale for the selection of borehole/monitoring well locations is presented in the table below:

<b>Borehole/Monitoring Well ID</b>	<b>Rationale for Borehole/Monitoring Well location</b>
BH5, BH6, TP1, TP2, TP3, TP4	Potential use of pesticides during current and historical agricultural activities at the majority of the subject site.
BH1	Presence of above ground fuel tank at the basement of the residential building located at the western/southwestern portion of the subject site.
BH2	Potential spill occurrences associated with the current and historical diesel aboveground storage tank used for fuelling farm equipment (located northwest of Site Building I), located at western/northwestern portion of the subject site.
BH4	Potential presence of fill material of unknown quality at the former pond area located immediately northeast of Site Building D, western/northwestern portion of the subject site.
BH3	Potential presence of fill material of unknown quality at the former pond area located northern/northwestern portion of the subject site.

#### 3.1 **Borehole Drilling, Test Pit and Soil Sampling**

Boreholes were advanced with direct push equipped with split spoon sampler (Pionjar) supplied by a specialist drilling contractor SL Sonic Soil Limited. Soil samples retrieved from boreholes were recovered continuously for soil vapour measurement, soil classification and visual and olfactory observations for potential contamination.

The sampling and decontamination procedures were conducted in accordance with the “Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in



Ontario”, May 1996, revised December 1996, as amended by O. Reg. 511/09.

Drilling and sampling equipment such as drill rigs, augers, drill pipes, drilling rods, split-spoons and spade were decontaminated prior to initial use, between borehole locations and at the completion of drilling activities. The drilling equipment was manually scrubbed with a brush using a phosphate-free solution, and power washed to remove any adhered soils, foreign material and potential contaminants. In addition, all sampling equipment were decontaminated prior to each usage.

Soil samples from the test pits were collected using a steel spade. Prior to recovering a sample, the sampling equipment (steel spade/steel shovel) was brushed clean using a solution of phosphate-free detergent and distilled water, and each discrete sample was handled by the sampler with new disposable gloves in order to avoid the risk of cross-contamination between the samples. Each soil sample was split with part of the sample sealed in a laboratory-prepared glass jar and stored in a cooler with ice, and the remainder of the sample sealed in a double sealable bag for soil vapour measurement and soil classification.

Soil samples from the boreholes were retrieved at regular intervals. Prior to recovering a sample, the sampling equipment was brushed clean using a solution of phosphate-free detergent and distilled water, and each discrete sample was handled by the sampler with new disposable gloves in order to avoid the risk of cross-contamination between the samples. Each soil sample was split with part of the sample sealed in a laboratory-prepared glass jar and stored in a cooler with ice, and the remainder of the sample sealed in a double sealable bag for vapour measurement and soil classification. A small amount of the soil sample was retrieved by a disposable ‘T’ shaped Terracore sampler and the soil samples from the Terracore sampler were stored in methanol vials for BTEX/F1 and/or VOCs analyses.

The headspace vapour concentrations were measured using a portable RKI Eagle 2 gas detector, TYPE 101 (Serial Number: E091011) set to include organic gases with the exception of methane (methane elimination mode), and having a minimum detection level



of 0.1 ppm (parts per million by volume). Prior to taking the measurements, the instrument was calibrated to hexane standards for both ppm and lower explosive level (LEL) scales according to the instruction manual for the instrument. Our technician was trained by the supplier for the proper calibration procedure.

The field work was monitored by SEL environmental personnel who recorded the findings and observations.



#### 4.0 **SUBSOIL AND GROUNDWATER CONDITION**

##### 4.1 **Geology**

The subsoil conditions at the borehole locations indicated that beneath the topsoil, the subject site is underlain by silty clay till deposits at various depths and borehole locations. The subsoil conditions at the borehole location BH3 indicated that beneath the topsoil site is underlain by fill material (up to the depth of 0.9 mbgs) and silty clay till deposits (up to 2.1mbgs). Detailed descriptions of the encountered subsoil conditions are presented on the Borehole Logs provided in Appendix 'A'. No bedrock was encountered during the Phase II ESA.

##### 4.2 **Hydrogeology**

No groundwater media was identified as potential contaminated media and therefore no groundwater monitoring and sampling was completed as part of Phase II ESA. Based on the review of the Topographic Map of the area, the groundwater flow direction was assumed towards east.

##### 4.3 **Headspace Vapour Readings**

Headspace soil vapour screening was conducted for all retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode, calibrated with hexane and having a minimum detection level of 2 ppm (parts per million by volume).

Soil vapour readings for the soil samples retrieved from the sampling locations were recorded as non-detected to 65 ppm.



## 5.0 ANALYTICAL TESTING PROGRAM

### 5.1 Soil Samples

Representative “worst case” soil samples to determine maximum concentrations from each sampling location were selected based on the soil vapour measurements and visual and olfactory observations. The selected soil samples were submitted to the laboratory for chemical analyses of OCs, VOCs, PHCs, BTEX, PAHs, Metals and pH parameters. Details of soil analysis (including QA/QC sample) are presented in the table below:

Sample ID	Sample Depth (mbgs)	Type of Material	Parameters of Testing
BH1/1	0.2 – 0.9	Soil	Metals, BTEX, PHCs
BH2/1B	0.3 – 0.6	Soil	Metals, BTEX, PHCs
BH2/1C	0.6 – 0.8	Soil	BTEX, PHCs
BH2/2	0.8 – 1.5	Soil	BTEX, PHCs
BH2/3	1.5 – 2.1	Soil	pH
BH3/1	0.2 – 0.9	Soil	Metals, BTEX, PHCs
BH4/1	0.2 – 0.7	Soil	Metals, BTEX, PHCs, pH
BH5/1A	0 – 0.2	Soil	Metals, OCs
BH6/1A	0 – 0.2	Soil	Metals, OCs and pH
BH6/3	1.5 – 1.8	Soil	pH
TP1	0 – 0.3	Top Soil	OCs, Metals
TP2	0 – 0.3	Top Soil	OCs, Metals
TP3	0 – 0.3	Top Soil	OCs, Metals
TP4	0 – 0.3	Top Soil	OCs, Metals
DUPS1 (BH1/1)	0 – 0.3	Top Soil	Metals
DUPS2 (TP1)	0 – 0.3	Top Soil	Metals

### 5.2 Groundwater Samples

Groundwater was not assessed as part of this investigation.



## 6.0 RESULTS OF CHEMICAL ANALYSES

The soil samples were analysed by Bureau Veritas Laboratories (BV Labs formerly i.e. Maxxam Laboratories) in Mississauga, Ontario. BV Labs are accredited by Canadian Association for Laboratory Accreditation (CALA) in accordance with ISO/IEC 17025:2005 – “General Requirements for the Competence of Testing and Calibration Laboratories” for all the parameters analysed during this investigation. A copy of the laboratory Certificates of Analyses is enclosed in the Appendix ‘B’.

Laboratory analytical methods, protocols and procedures were carried out in accordance with the “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act”, dated March 9, 2004, as amended.

The test results were reviewed using Table 8 Standards (TP2 and BH6) and Table 2 Standards (BH1, BH2, BH3, BH4, TP1, TP3 and TP4) as published in the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (EPA), April 15, 2011.

### 6.1 Soil Results

A total of sixteen (16) soil samples (including QA/QC samples) were submitted for analyses of OCs, VOCs, PHCs, BTEX, PAHs, Metals and pH parameters. The Certificate of Analyses for the soil samples are presented in Appendix ‘B’.

A review of the analytical test results of the soil samples at the test locations within 30 m from the waterbody meet the Table 8 Standards (TP2 and BH6) and the soil samples at all the tested locations beyond 30 m from the waterbody (BH1, BH2, BH3, BH4, TP1, TP3 and TP4) meet the Table 2 Standards.





### 6.3 Quality Assurance/Quality Control Results

As part of the QA/QC program for the Phase II ESA, QC samples in the form of field duplicate sample were analysed. Field duplicate sample was collected in the field for the analyses of metals in soil. Details of the QC samples are presented in the Section 5 of this report.

The results of the analyses of the field duplicate samples are generally similar to the results for the original samples, and relative percent differences (RPDs) for the detectable tested parameters are within acceptable range. However, the relative percent differences could not be calculated between the original and duplicate samples in the situation where the original and/or duplicate sample was found to be below the reported laboratory detection limits.

A copy of the Certificates of Analysis for the QC samples is presented in Appendix 'B'.



## 7.0 SUMMARY

The objective of this investigation is to assess the soil quality at the subject site as related to the following environmental concerns identified in the findings of the Pinchin Phase I Environmental Site Assessment (Phase I ESA), Reference No. 325252, dated June 6, 2023, prepared in accordance with the Canadian Standards Association (CSA) Standard Z768-00 for the subject site.

- Potential use of pesticides during current and historical agricultural activities at the majority of the subject site.
- Presence of above ground fuel tank at the basement of the residential building located at the western/southwestern portion of the subject site.
- Potential spill occurrences associated with the current and historical diesel aboveground storage tank used for fuelling farm equipment (located northwest of Site Building I), located at western/northwestern portion of the subject site.
- Potential presence of fill material of unknown quality at the former pond area located immediately northeast of Site Building D, western/northwestern portion of the subject site.
- Potential presence of fill material of unknown quality at the former pond area located northern/northwestern portion of the subject site.

The findings of the field investigation and analytical results are summarized below:

- The field investigation for this Phase II ESA consisted six (6) boreholes advanced to a maximum depth of 2.1 mbgs and four (4) hand dug test pits to a depth of 0.3 mbgs.
- The subsoil conditions at the borehole locations indicated that beneath the topsoil, the subject site is underlain by silty clay till deposits at various depths and borehole locations. The subsoil conditions at the borehole location BH3 indicated that beneath the topsoil site is underlain by fill material (up to the depth of 0.9 mbgs) and silty clay till deposits (up to 2.1mbgs).
- Headspace soil vapour screening was conducted for the retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode. Soil vapour



readings for the soil samples retrieved from the sampling locations were recorded as non-detected to 65 ppm.

- Based on the soil vapour measurements and visual and olfactory observations, representative “worst case” soil samples were selected from the sampling locations for chemical analyses of OCs, VOCs, PHCs, BTEX, PAHs, Metals and pH parameters.
- As part of the quality assurance/quality control (QA/QC) program for the Phase II ESA, QC sample in the form of field duplicate sample was analysed. Field duplicate sample was collected in the field for the analysis of metals in soil.
- The analytical test results were reviewed using the Ministry of the Environment Conservation and Parks (MECP) Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition (Table 8 Standards) for soil samples collected within 30 m of waterbody and Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional/ property use and for coarse textured soils (Table 2 Standards) for soil samples collected beyond 30 m of waterbody, as published in the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (EPA), dated April 15, 2011.
- The test results indicate that the concentration of soil tested parameters at the test locations within 30 m from the waterbody ((TP2 and BH6)) meet the Table 8 Standards and the soil samples at all the tested locations beyond 30 m from the waterbody (BH1, BH2, BH3, BH4, TP1, TP3 and TP4) meet the Table 2 Standards.
- The results of the analyses of the duplicate samples are similar to the results for the original samples, and relative percent differences (RPDs) for the detectable tested parameters are within acceptable range or non-calculable.



## 8.0 **CONCLUSION AND RECOMMENDATION**

A review of the analytical test results of the soil samples at the test locations within 30 m from the waterbody meet the Table 8 Standards (TP2 and BH6) and the soil samples at all the tested locations beyond 30 m from the waterbody (BH1, BH2, BH3, BH4, TP1, TP3 and TP4) meet the Table 2 Standards.

Based on the findings of field investigation and the review of analysed results, no further environmental investigation is recommended at this time.

Please note that the information supplied by this report, and its format do not meet all the requirements as set out in the O. Reg. 153/04, as amended. Therefore, this report cannot be used in support of a filing of a Record of Site Condition (RSC) with the Environmental Site Registry (ESR) of the Ministry of the Environment, Conservation and Parks (MECP). If there is intent to file an RSC, a Phase One and Phase Two ESA in accordance with all the requirements of the O. Reg. 153/04, as amended, must be completed prior to submission of an RSC for filing.



## 9.0 QUALIFICATIONS

Soil Engineers Ltd., formerly known as Soil-Eng Limited (founded in 1976), offers to its clients a range of specialized engineering services. Our company is staffed with both engineers and scientists who draw upon their combined experience to provide a team approach to problem solving. Specifically, our environmental division employs more than 20 people who are trained to understand the Ministry of Environmental, Conservation and Parks (MECP) regulations. We play an integral role in the development of industrial, commercial, institutional and residential subdivisions, complexes, structures and their related infrastructures, by providing our clients with the needed expertise for their projects.

This report and its assessment were prepared by Mr. Deepak Pudasainee, PhD., Mr. Pudasainee has a Post Graduate Degree in Environmental Science. He has been trained to conduct Phase I and II ESA in accordance with CSA Standards.

Mr. Arshad Shaikh is a Project Manager in Environmental Department of Soil Engineers Ltd. He has a Bachelor' Degree in Civil Engineering from NED University (in Pakistan) and a Master Degree in Water Resources Engineering and Management from the University of Stuttgart, Germany. He is Registered Professional Engineer and License to practice in Ontario (PEO License 100196680). He has more than 12 years of experience in conducting Environmental Site assessments (ESA), remediation, site decommissioning in Ontario. He supervises ESA work and review ESA reports and involved reviewing this report.

Ms. Eleni Girma Beyene is the Environmental Department Manager of Soil Engineers Ltd. She has a Bachelor's Degree in Civil Engineering from Mangalore University (India) and a Master's Degree in Geotechnical Engineering & Infrastructures from University of Hannover (Germany), and is licensed to practice in Ontario (PEO Licence 100068382). She has more than 16 years of experience in conducting ESAs, site decommissioning and site remediation (soil and groundwater) in Ontario. She manages the environmental department, oversees the projects and is involved in the technical review of this report.

One must understand that the mandate of Soil Engineers Ltd. is to collect a finite number



of soil and groundwater samples and submit representative samples to chemically characterize the contaminants in the subject site for a Phase II Environmental Site Assessment only. No other warranty or representation, expressed or implied, as to the accuracy of the information is included or intended by this assessment. One must be aware that the subsurface conditions may vary between sampling locations.

Any deleterious debris found on the surface or buried on site must be removed and disposed of properly. It should be noted that the information supplied in this report may not be sufficient to obtain approval for the disposal of any excess soil or materials generated during future construction, and supplementary chemical testing of samples may be necessary to obtain such approval.

Should any further adverse environmental conditions become apparent in the future, we request immediate notification in order to provide further assessment and recommendations.

This report was prepared by Soil Engineers Ltd. for the account of Global Properties Inc. and for review by their designated agents, financial institutions. Use of the report is subject to the conditions and limitations of the contractual agreement. The material in it reflects the judgement of Deepak Pudasainee, PhD; Arshad Shaikh P.Eng., QP<sub>ESA</sub> and Eleni Girma Beyene P.Eng., QP<sub>ESA</sub> 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 decisions to be made based on it, are the responsibility of such Third Parties. Soil Engineers Ltd. accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.

**SOIL ENGINEERS LTD.**

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CONSULTING ENGINEERS

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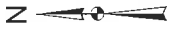
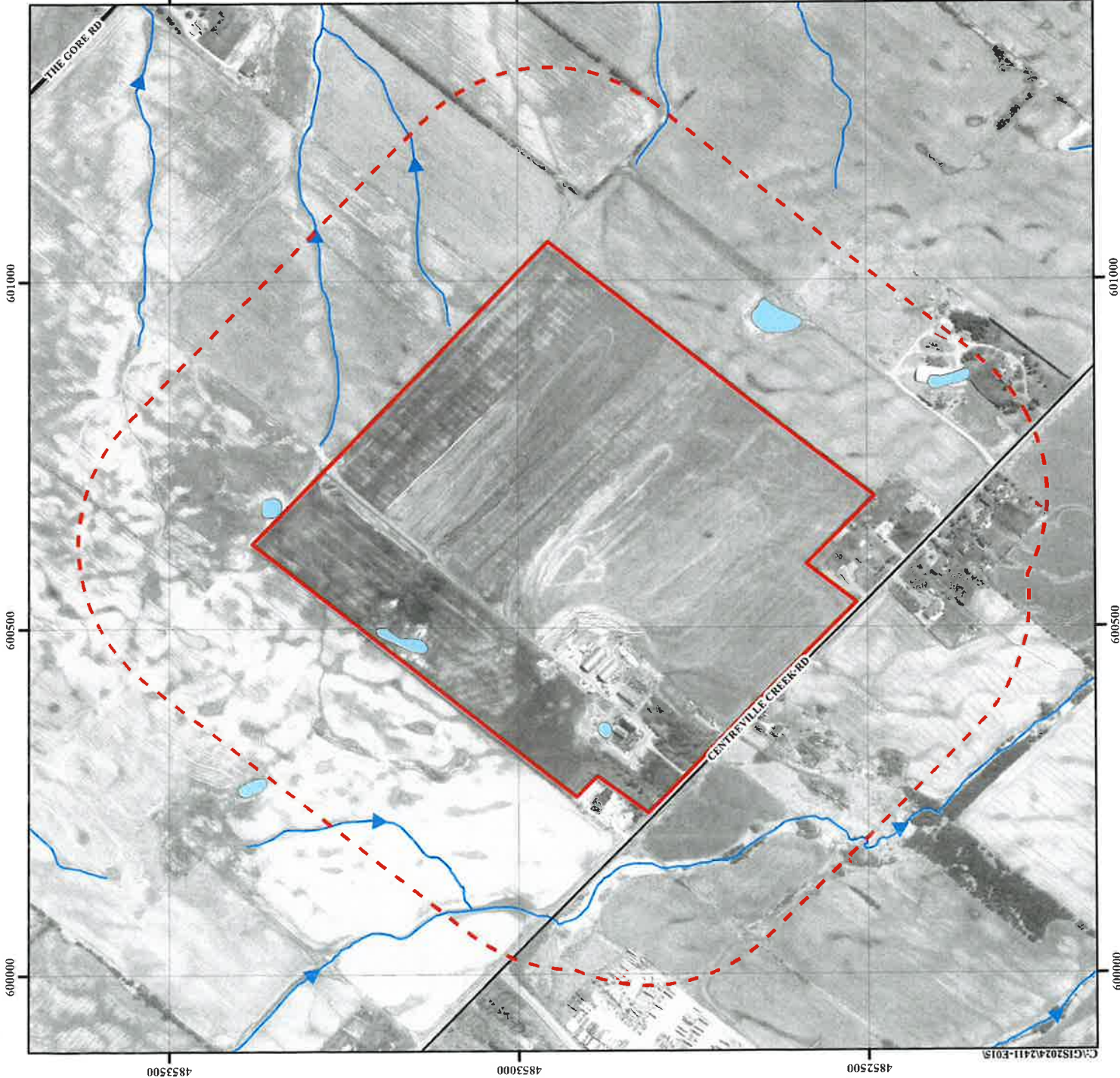
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## **DRAWINGS**

**Reference No. 2411-E015**



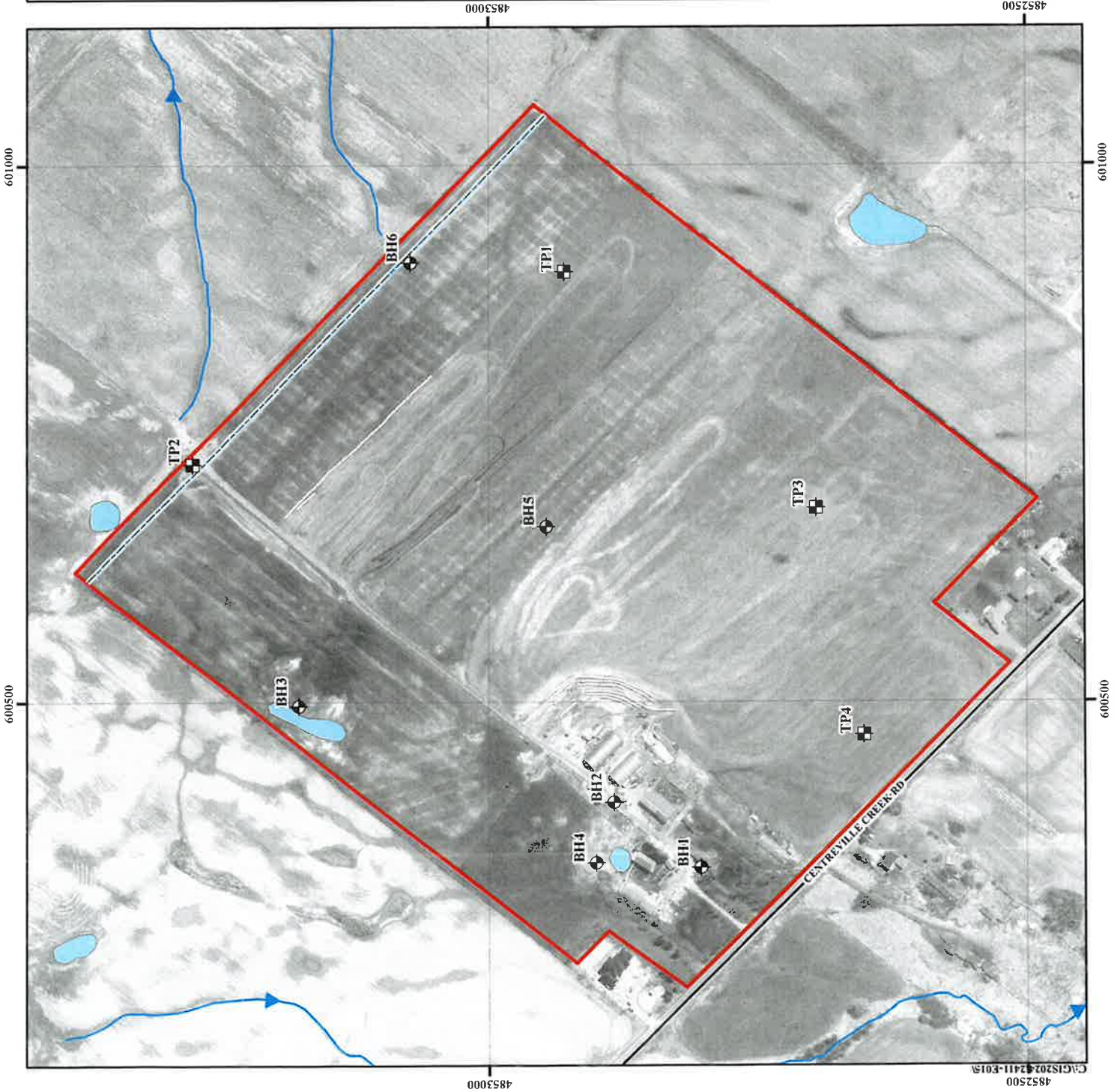
-  Subject Site
-  Phase One Study Area
-  Waterbody
-  Major Road
-  Local Road



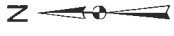
<b>Soil Engineers Ltd.</b>
Title: Site Location Plan
Project: Proposed Development 12561 Centreville Creek Road Town of Caledon
Reference No. 2411-E015
Date: November 28, 2024
Scale: 0 40 80 160 240 320 400 Metres
Drawing No. 1

Source: Ontario Ministry of Natural Resources and Forestry  
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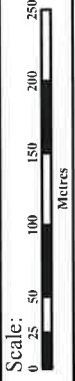


- Subject Site
- Borehole
- Test Pit
- Waterbody
- Local Road
- 30m Watercourse Buffer



**Soil Engineers Ltd.**  
 Title: Sampling Location Plan  
 Project:  
 Proposed Development  
 12561 Centreville Creek Road  
 Town of Caledon

Reference No. 2411-E015  
 Date: November 28, 2024



Drawing No. 2

Source: Ontario Ministry of Natural Resources and Forestry  
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# ***Soil Engineers Ltd.***

CONSULTING ENGINEERS

**GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE**

90 WEST BEAVER CREEK ROAD, SUITE #100, RICHMOND HILL, ONTARIO L4B 1E7 • TEL (416) 754-8515 • FAX (905) 881-83

<b>BARRIE</b>	<b>MISSISSAUGA</b>	<b>OSHAWA</b>	<b>NEWMARKET</b>	<b>GRAVENHURST</b>	<b>PETERBOROUGH</b>	<b>HAMILTON</b>
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 684-4242	TEL: (905) 440-2040	TEL: (905) 777-79
FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 684-8522	FAX: (905) 725-1315	FAX: (905) 542-27

## **APPENDIX 'A'**

### **BOREHOLE LOGS**

**Reference No. 2411-E015**

JOB NO.: 2411-E015

# LOG OF BOREHOLE NO.: 1

FIGURE NO.: 1

PROJECT DESCRIPTION: Proposed Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 12561 Centreville Creek Road  
Town of Caledon

DRILLING DATE: October 23, 2024

El. (masl) Depth (mbgs)	SOIL DESCRIPTION	SAMPLES			Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
		Number	Type	Combustible Headspace Reading (ppm)				
242.1	Basement							
0.0	<b>15 cm CONCRETE</b>							
0.2	Brown <b>SILTY CLAY</b>	1	DO	65	0	●	BH1/1: Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, Cyanide, PHCs, BTEX, DUPS1: Metals	
240.8		2	DO	45	1	●		
1.2	END OF BOREHOLE							



JOB NO.: 2411-E015

# LOG OF BOREHOLE NO.: 2

FIGURE NO.: 2

PROJECT DESCRIPTION: Proposed Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 12561 Centreville Creek Road  
Town of Caledon

DRILLING DATE: October 23, 2024

El. (masl) Depth (mbgs)	SOIL DESCRIPTION	SAMPLES			Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
		Number	Type	Combustible Headspace Reading (ppm)				
242.9 0.0	Ground Surface							
242.1 0.8	Brown <b>SILTY CLAY</b> — <u>bricks and gravels</u> — <u>mixed with topsoil</u>	1A	DO	15	0	●	BH2/1B: Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, Cyanide, PHCs, BTEX BH2/1C: PHCs, BTEX BH2/2: PHCs, BTEX  BH2/3: pH	
		1B	DO	25		●		
		1C	DO	5		●		
2	DO	15	1	●				
3	DO	10	2	●				
240.7 2.1	REFUSAL at 7 ft				8			



JOB NO.: 2411-E015

# LOG OF BOREHOLE NO.: 3

FIGURE NO.: 3

PROJECT DESCRIPTION: Proposed Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 12561 Centreville Creek Road  
Town of Caledon

DRILLING DATE: October 23, 2024

El. (masl) Depth (mbgs)	SOIL DESCRIPTION	SAMPLES			Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
		Number	Type	Combustible Headspace Reading (ppm)				
243.2	Ground Surface							
0.0	<b>15 cm TOPSOIL</b> sand and rock				0		BH3/1: Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, Cyanide, PHCs, VOCs, PAHs, BTEX	
0.2	<b>FILL</b> Brown, silty clay	1	DO	10	0.2			
242.3	<b>SILTY CLAY TILL</b>	2	DO	10	0.9			
	----- brown grey	3	DO	5				
241.1	REFUSAL at 6.8 ft				2.1			



**JOB NO.:** 2411-E015

# LOG OF BOREHOLE NO.: 4

**FIGURE NO.:** 4

**PROJECT DESCRIPTION:** Proposed Development

**METHOD OF BORING:** Direct Push

**PROJECT LOCATION:** 12561 Centreville Creek Road  
Town of Caledon

**DRILLING DATE:** October 23, 2024

El. (masl) Depth (mbgs)	SOIL DESCRIPTION	SAMPLES			Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
		Number	Type	Combustible Headspace Reading (ppm)				
243.5	Ground Surface							
0.0	<b>15 cm TOPSOIL</b>							
0.1	Brown <b>SILTY CLAY</b> gravels (Disturbed Soil)	1	DO	10	0	●	BH4/1: Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, Cyanide, PHCs, VOCs, PAHs, BTEX, pH	
242.8 0.8		2	DO	5	1	●		
242.0 1.5	REFUSAL at 5 ft				2			
					3			
					4			
					5			
					6			
					7			
					8			



JOB NO.: 2411-E015

# LOG OF BOREHOLE NO.: 5

FIGURE NO.: 5

PROJECT DESCRIPTION: Proposed Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 12561 Centreville Creek Road  
Town of Caledon

DRILLING DATE: October 23, 2024

El. (masl)	SOIL DESCRIPTION	SAMPLES			Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
		Number	Type	Combustible Headspace Reading (ppm)				
240.7	Ground Surface							
0.0	<b>15 cm TOPSOIL</b>	1A	DO	10	0		BH5/1A: Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, Cyanide, OCs	
0.2	Brown <b>SILTY CLAY</b>	1B	DO	0				
		2	DO	5	1			
239.2	REFUSAL at 5 ft							
1.5								



JOB NO.: 2411-E015

# LOG OF BOREHOLE NO.: 6

FIGURE NO.: 6

PROJECT DESCRIPTION: Proposed Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 12561 Centreville Creek Road  
Town of Caledon

DRILLING DATE: October 23, 2024

EL. (masl) Depth (mbgs)	SOIL DESCRIPTION	SAMPLES			Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
		Number	Type	Combustible Headspace Reading (ppm)				
240.5	Ground Surface							
0.0	<b>15 cm TOPSOIL</b>	1A	DO	15	0		BH6/1A: Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, Cyanide, OCs, pH	
0.2	<b>SILTY CLAY</b>  — <u>brown</u> , trace gravel brown-grey	1B	DO	0				
		2	DO	0	1			
		3	DO	0				
238.7 1.8	REFUSAL at 6.1 ft						BH6/3: pH	



**Soil Engineers Ltd.**





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FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 684-8522	FAX: (905) 725-1315	FAX: (905) 542-27

## **APPENDIX 'B'**

### **CERTIFICATE OF ANALYSIS (SOIL SAMPLES)**

**Reference No. 2411-E015**



Site#: CALEDON  
 Site Location: 12561 CENTREVILLE CREEK ROAD  
 Your C.O.C. #: N/A

**Attention: Deepak Pudasainee**

Soil Engineers Ltd  
 90 West Beaver Creek Road  
 Unit 100  
 Richmond Hill, ON  
 CANADA L4B 1E7

**Report Date: 2024/11/04**  
 Report #: R8390657  
 Version: 2 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C4X6776**

Received: 2024/10/24, 15:50

Sample Matrix: Soil  
 # Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	1	N/A	2024/10/28	CAM SOP-00301	EPA 8270D m
Methylnaphthalene Sum	1	N/A	2024/10/29	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	10	2024/10/29	2024/10/29	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2024/10/30		EPA 8260C m
Free (WAD) Cyanide	10	2024/10/29	2024/10/29	CAM SOP-00457	OMOE E3015 m
Hexavalent Chromium in Soil by IC (1)	10	2024/10/29	2024/10/30	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	2	N/A	2024/10/29	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	4	2024/10/27	2024/10/28	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	12	2024/10/29	2024/10/29	CAM SOP-00447	EPA 6020B m
Moisture	10	N/A	2024/10/26	CAM SOP-00445	Carter 2nd ed 70.2 m
OC Pesticides (Selected) & PCB (4)	6	2024/10/31	2024/10/31	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	6	N/A	2024/10/28	CAM SOP-00307	EPA 8081B/ 8082A
PAH Compounds in Soil by GC/MS (SIM)	1	2024/10/27	2024/10/28	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM)	1	2024/10/28	2024/10/28	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	1	2024/10/29	2024/10/29	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	2	2024/10/30	2024/10/30	CAM SOP-00413	EPA 9045 D m
Volatile Organic Compounds and F1 PHCs	2	N/A	2024/10/30	CAM SOP-00230	EPA 8260C m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless



Site#: CALEDON  
Site Location: 12561 CENTREVILLE CREEK ROAD  
Your C.O.C. #: N/A

**Attention: Deepak Pudasainee**

Soil Engineers Ltd  
90 West Beaver Creek Road  
Unit 100  
Richmond Hill, ON  
CANADA L4B 1E7

**Report Date: 2024/11/04**  
Report #: R8390657  
Version: 2 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C4X6776**

**Received: 2024/10/24, 15:50**

otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.

(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

(4) Chlordane ( Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key



AUTHORIZED REPORT  
RAPPORT AUTORISÉ

Bureau Veritas  
04 Nov 2024 18:08:48

Please direct all questions regarding this Certificate of Analysis to:

Antonella Brasil, Senior Project Manager  
Email: Antonella.Brasil@bureauveritas.com  
Phone# (905)817-5817

=====

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



**O.REG 153 ICPMS METALS (SOIL)**

Bureau Veritas ID		AGZW68	AGZW68	AGZW71			
Sampling Date		2024/10/23	2024/10/23	2024/10/23			
COC Number		N/A	N/A	N/A			
	UNITS	DUPS1	DUPS1 Lab-Dup	DUPS2	RDL	MDL	QC Batch
<b>Metals</b>							
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	0.20	0.10	9730787
Acid Extractable Arsenic (As)	ug/g	3.9	4.0	2.6	1.0	0.10	9730787
Acid Extractable Barium (Ba)	ug/g	120	120	61	0.50	0.30	9730787
Acid Extractable Beryllium (Be)	ug/g	0.85	0.84	0.63	0.20	0.020	9730787
Acid Extractable Boron (B)	ug/g	9.9	9.2	<5.0	5.0	1.0	9730787
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	0.16	0.10	0.030	9730787
Acid Extractable Chromium (Cr)	ug/g	27	26	19	1.0	0.20	9730787
Acid Extractable Cobalt (Co)	ug/g	15	15	7.5	0.10	0.020	9730787
Acid Extractable Copper (Cu)	ug/g	22	22	13	0.50	0.20	9730787
Acid Extractable Lead (Pb)	ug/g	11	11	11	1.0	0.10	9730787
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	0.50	0.10	9730787
Acid Extractable Nickel (Ni)	ug/g	34	33	17	0.50	0.20	9730787
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	0.50	0.10	9730787
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	0.20	0.040	9730787
Acid Extractable Thallium (Tl)	ug/g	0.16	0.15	0.12	0.050	0.010	9730787
Acid Extractable Uranium (U)	ug/g	0.71	0.71	0.64	0.050	0.030	9730787
Acid Extractable Vanadium (V)	ug/g	34	34	30	5.0	0.50	9730787
Acid Extractable Zinc (Zn)	ug/g	62	62	53	5.0	0.50	9730787
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	0.050	0.030	9730787
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



Bureau Veritas Job #: C4X6776  
 Report Date: 2024/11/04

Soil Engineers Ltd  
 Site Location: 12561 CENTREVILLE CREEK ROAD

**O.REG 153 METALS & INORGANICS PKG (SOIL)**

Bureau Veritas ID		AGZW59					AGZW59			
Sampling Date		2024/10/23 11:00					2024/10/23 11:00			
COC Number		N/A					N/A			
	UNITS	BH1/1	RDL	MDL	QC Batch	BH1/1 Lab-Dup	RDL	MDL	QC Batch	
<b>Inorganics</b>										
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9730043					
Chromium (VI)	ug/g	<0.18	0.18	0.050	9730921					
<b>Metals</b>										
Hot Water Ext. Boron (B)	ug/g	0.24	0.050	0.030	9730356	0.22	0.050	0.030	9730356	
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9730787					
Acid Extractable Arsenic (As)	ug/g	5.2	1.0	0.10	9730787					
Acid Extractable Barium (Ba)	ug/g	110	0.50	0.30	9730787					
Acid Extractable Beryllium (Be)	ug/g	0.96	0.20	0.020	9730787					
Acid Extractable Boron (B)	ug/g	11	5.0	1.0	9730787					
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9730787					
Acid Extractable Chromium (Cr)	ug/g	30	1.0	0.20	9730787					
Acid Extractable Cobalt (Co)	ug/g	18	0.10	0.020	9730787					
Acid Extractable Copper (Cu)	ug/g	25	0.50	0.20	9730787					
Acid Extractable Lead (Pb)	ug/g	12	1.0	0.10	9730787					
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9730787					
Acid Extractable Nickel (Ni)	ug/g	41	0.50	0.20	9730787					
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9730787					
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9730787					
Acid Extractable Thallium (Tl)	ug/g	0.21	0.050	0.010	9730787					
Acid Extractable Uranium (U)	ug/g	0.78	0.050	0.030	9730787					
Acid Extractable Vanadium (V)	ug/g	38	5.0	0.50	9730787					
Acid Extractable Zinc (Zn)	ug/g	68	5.0	0.50	9730787					
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9730787					
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



**O.REG 153 METALS & INORGANICS PKG (SOIL)**

Bureau Veritas ID		AGZW60	AGZW61		AGZW62			
Sampling Date		2024/10/23 12:00	2024/10/23 13:30		2024/10/23 14:00			
COC Number		N/A	N/A		N/A			
	UNITS	BH2/1B	BH3/1	QC Batch	BH4/1	RDL	MDL	QC Batch
<b>Inorganics</b>								
Available (CaCl2) pH	pH				7.49			9731153
WAD Cyanide (Free)	ug/g	<0.01	<0.01	9730043	<0.01	0.01	0.0019	9730043
Chromium (VI)	ug/g	<0.18	<0.18	9730921	<0.18	0.18	0.050	9730921
<b>Metals</b>								
Hot Water Ext. Boron (B)	ug/g	0.99	0.39	9730356	0.46	0.050	0.030	9730356
Acid Extractable Antimony (Sb)	ug/g	0.22	<0.20	9730787	0.26	0.20	0.10	9730787
Acid Extractable Arsenic (As)	ug/g	3.3	4.5	9730787	3.7	1.0	0.10	9730787
Acid Extractable Barium (Ba)	ug/g	81	110	9730787	67	0.50	0.30	9730787
Acid Extractable Beryllium (Be)	ug/g	0.76	1.0	9730787	0.61	0.20	0.020	9730787
Acid Extractable Boron (B)	ug/g	6.4	7.7	9730787	6.3	5.0	1.0	9730787
Acid Extractable Cadmium (Cd)	ug/g	0.28	0.11	9730787	0.19	0.10	0.030	9730787
Acid Extractable Chromium (Cr)	ug/g	24	28	9730787	20	1.0	0.20	9730787
Acid Extractable Cobalt (Co)	ug/g	11	16	9730787	8.5	0.10	0.020	9730787
Acid Extractable Copper (Cu)	ug/g	19	21	9730787	22	0.50	0.20	9730787
Acid Extractable Lead (Pb)	ug/g	20	14	9730787	57	1.0	0.10	9730787
Acid Extractable Molybdenum (Mo)	ug/g	0.50	<0.50	9730787	<0.50	0.50	0.10	9730787
Acid Extractable Nickel (Ni)	ug/g	23	32	9730787	20	0.50	0.20	9730787
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	9730787	<0.50	0.50	0.10	9730787
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	9730787	<0.20	0.20	0.040	9730787
Acid Extractable Thallium (Tl)	ug/g	0.15	0.15	9730787	0.13	0.050	0.010	9730787
Acid Extractable Uranium (U)	ug/g	0.57	0.65	9730787	0.63	0.050	0.030	9730787
Acid Extractable Vanadium (V)	ug/g	35	41	9730787	28	5.0	0.50	9730787
Acid Extractable Zinc (Zn)	ug/g	110	68	9730787	73	5.0	0.50	9730787
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	9730787	<0.050	0.050	0.030	9730787
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								



BUREAU  
VERITAS

Bureau Veritas Job #: C4X6776

Report Date: 2024/11/04

Soil Engineers Ltd

Site Location: 12561 CENTREVILLE CREEK ROAD

**O.REG 153 METALS & INORGANICS PKG (SOIL)**

Bureau Veritas ID		AGZW62				AGZW63		AGZW64			
Sampling Date		2024/10/23 14:00				2024/10/23 15:00		2024/10/23 15:30			
COC Number		N/A				N/A		N/A			
	UNITS	BH4/1 Lab-Dup	RDL	MDL	QC Batch	BH5/1A	QC Batch	BH6/1A	RDL	MDL	QC Batch
<b>Inorganics</b>											
Available (CaCl <sub>2</sub> ) pH	pH							7.38			9734990
WAD Cyanide (Free)	ug/g					<0.01	9730043	<0.01	0.01	0.0019	9730043
Chromium (VI)	ug/g	<0.18	0.18	0.050	9730921	<0.18	9730921	<0.18	0.18	0.050	9730921
<b>Metals</b>											
Hot Water Ext. Boron (B)	ug/g					0.12	9730356	0.29	0.050	0.030	9730356
Acid Extractable Antimony (Sb)	ug/g					<0.20	9730787	<0.20	0.20	0.10	9730787
Acid Extractable Arsenic (As)	ug/g					2.6	9730787	3.8	1.0	0.10	9730787
Acid Extractable Barium (Ba)	ug/g					86	9730787	70	0.50	0.30	9730787
Acid Extractable Beryllium (Be)	ug/g					0.77	9730787	0.63	0.20	0.020	9730787
Acid Extractable Boron (B)	ug/g					<5.0	9730787	5.2	5.0	1.0	9730787
Acid Extractable Cadmium (Cd)	ug/g					<0.10	9730787	0.18	0.10	0.030	9730787
Acid Extractable Chromium (Cr)	ug/g					25	9730787	22	1.0	0.20	9730787
Acid Extractable Cobalt (Co)	ug/g					8.9	9730787	8.8	0.10	0.020	9730787
Acid Extractable Copper (Cu)	ug/g					15	9730787	21	0.50	0.20	9730787
Acid Extractable Lead (Pb)	ug/g					11	9730787	15	1.0	0.10	9730787
Acid Extractable Molybdenum (Mo)	ug/g					<0.50	9730787	<0.50	0.50	0.10	9730787
Acid Extractable Nickel (Ni)	ug/g					22	9730787	20	0.50	0.20	9730787
Acid Extractable Selenium (Se)	ug/g					<0.50	9730787	<0.50	0.50	0.10	9730787
Acid Extractable Silver (Ag)	ug/g					<0.20	9730787	<0.20	0.20	0.040	9730787
Acid Extractable Thallium (Tl)	ug/g					0.15	9730787	0.12	0.050	0.010	9730787
Acid Extractable Uranium (U)	ug/g					0.59	9730787	0.65	0.050	0.030	9730787
Acid Extractable Vanadium (V)	ug/g					36	9730787	28	5.0	0.50	9730787
Acid Extractable Zinc (Zn)	ug/g					56	9730787	68	5.0	0.50	9730787
Acid Extractable Mercury (Hg)	ug/g					<0.050	9730787	<0.050	0.050	0.030	9730787
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											
Lab-Dup = Laboratory Initiated Duplicate											



BUREAU VERITAS

Bureau Veritas Job #: C4X6776

Report Date: 2024/11/04

Soil Engineers Ltd

Site Location: 12561 CENTREVILLE CREEK ROAD

**O.REG 153 METALS & INORGANICS PKG (SOIL)**

Bureau Veritas ID		AGZW66		AGZW67		AGZW69	AGZW70			
Sampling Date		2024/10/23 16:00		2024/10/23 16:00		2024/10/23 15:00	2024/10/23 16:00			
COC Number		N/A		N/A		N/A	N/A			
	UNITS	TP1	QC Batch	TP2	QC Batch	TP3	TP4	RDL	MDL	QC Batch
<b>Inorganics</b>										
WAD Cyanide (Free)	ug/g	<0.01	9730043	<0.01	9730035	<0.01	<0.01	0.01	0.0019	9730043
Chromium (VI)	ug/g	<0.18	9730921	<0.18	9730921	<0.18	<0.18	0.18	0.050	9730921
<b>Metals</b>										
Hot Water Ext. Boron (B)	ug/g	0.36	9730356	0.45	9730356	0.72	0.59	0.050	0.030	9730356
Acid Extractable Antimony (Sb)	ug/g	<0.20	9730787	<0.20	9730787	<0.20	<0.20	0.20	0.10	9730787
Acid Extractable Arsenic (As)	ug/g	2.6	9730787	2.5	9730787	2.5	2.8	1.0	0.10	9730787
Acid Extractable Barium (Ba)	ug/g	62	9730787	58	9730787	58	88	0.50	0.30	9730787
Acid Extractable Beryllium (Be)	ug/g	0.61	9730787	0.53	9730787	0.52	0.78	0.20	0.020	9730787
Acid Extractable Boron (B)	ug/g	<5.0	9730787	<5.0	9730787	<5.0	5.6	5.0	1.0	9730787
Acid Extractable Cadmium (Cd)	ug/g	0.17	9730787	0.11	9730787	0.16	0.21	0.10	0.030	9730787
Acid Extractable Chromium (Cr)	ug/g	20	9730787	18	9730787	17	24	1.0	0.20	9730787
Acid Extractable Cobalt (Co)	ug/g	8.2	9730787	7.7	9730787	6.9	9.7	0.10	0.020	9730787
Acid Extractable Copper (Cu)	ug/g	13	9730787	11	9730787	18	16	0.50	0.20	9730787
Acid Extractable Lead (Pb)	ug/g	11	9730787	11	9730787	12	15	1.0	0.10	9730787
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9730787	<0.50	9730787	0.66	<0.50	0.50	0.10	9730787
Acid Extractable Nickel (Ni)	ug/g	18	9730787	16	9730787	14	21	0.50	0.20	9730787
Acid Extractable Selenium (Se)	ug/g	<0.50	9730787	<0.50	9730787	<0.50	<0.50	0.50	0.10	9730787
Acid Extractable Silver (Ag)	ug/g	<0.20	9730787	<0.20	9730787	<0.20	<0.20	0.20	0.040	9730787
Acid Extractable Thallium (Tl)	ug/g	0.12	9730787	0.10	9730787	0.099	0.13	0.050	0.010	9730787
Acid Extractable Uranium (U)	ug/g	0.66	9730787	0.52	9730787	0.62	0.79	0.050	0.030	9730787
Acid Extractable Vanadium (V)	ug/g	31	9730787	30	9730787	28	34	5.0	0.50	9730787
Acid Extractable Zinc (Zn)	ug/g	54	9730787	45	9730787	79	80	5.0	0.50	9730787
Acid Extractable Mercury (Hg)	ug/g	<0.050	9730787	<0.050	9730787	<0.050	<0.050	0.050	0.030	9730787
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										





**O.REG 153 OC PESTICIDES (SOIL)**

Bureau Veritas ID		AGZW63			AGZW64			AGZW66				
Sampling Date		2024/10/23 15:00			2024/10/23 15:30			2024/10/23 16:00				
COC Number		N/A			N/A			N/A				
	UNITS	BH5/1A	RDL	MDL	BH6/1A	RDL	MDL	TP1	RDL	MDL	QC Batch	
<b>Calculated Parameters</b>												
Chlordane (Total)	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9726551	
o,p-DDD + p,p-DDD	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9726551	
o,p-DDE + p,p-DDE	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9726551	
o,p-DDT + p,p-DDT	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9726551	
Total Endosulfan	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9726551	
<b>Pesticides &amp; Herbicides</b>												
Aldrin	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
a-Chlordane	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
g-Chlordane	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
o,p-DDD	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
p,p-DDD	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
o,p-DDE	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
p,p-DDE	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
o,p-DDT	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
p,p-DDT	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Dieldrin	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Lindane	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Endosulfan I (alpha)	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Endosulfan II (beta)	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Endrin	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Heptachlor	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Heptachlor epoxide	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Hexachlorobenzene	ug/g	<0.0020	0.0020	0.00040	<0.010	0.010	0.0020	<0.0020	0.0020	0.00040	9735967	
Hexachlorobutadiene	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9735967	
Hexachloroethane	ug/g	<0.0020	0.0020	N/A	<0.010	0.010	N/A	<0.0020	0.0020	N/A	9735967	
Methoxychlor	ug/g	<0.0050	0.0050	0.0016	<0.025	0.025	0.0080	<0.0050	0.0050	0.0016	9735967	
<b>Surrogate Recovery (%)</b>												
2,4,5,6-Tetrachloro-m-xylene	%	89			102			87			9735967	
Decachlorobiphenyl	%	98			106			97			9735967	
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable												



BUREAU  
VERITAS

Bureau Veritas Job #: C4X6776

Report Date: 2024/11/04

Soil Engineers Ltd

Site Location: 12561 CENTREVILLE CREEK ROAD

### O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		AGZW67	AGZW69	AGZW70			
<b>Sampling Date</b>		2024/10/23 16:00	2024/10/23 15:00	2024/10/23 16:00			
<b>COC Number</b>		N/A	N/A	N/A			
	<b>UNITS</b>	<b>TP2</b>	<b>TP3</b>	<b>TP4</b>	<b>RDL</b>	<b>MDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>							
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9726551
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9726551
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9726551
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9726551
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9726551
<b>Pesticides &amp; Herbicides</b>							
Aldrin	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
a-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
g-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
o,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
o,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
o,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Lindane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Endrin	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Heptachlor	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Hexachlorobenzene	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9735967
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9735967
Hexachloroethane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9735967
Methoxychlor	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0016	9735967
<b>Surrogate Recovery (%)</b>							
2,4,5,6-Tetrachloro-m-xylene	%	95	93	96			9735967
Decachlorobiphenyl	%	96	92	105			9735967
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
N/A = Not Applicable							



**O.REG 153 PAHS (SOIL)**

Bureau Veritas ID		AGZW61		AGZW62			
Sampling Date		2024/10/23 13:30		2024/10/23 14:00			
COC Number		N/A		N/A			
	UNITS	BH3/1	QC Batch	BH4/1	RDL	MDL	QC Batch
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	9726471	<0.0071	0.0071	N/A	9726471
<b>Polyaromatic Hydrocarbons</b>							
Acenaphthene	ug/g	<0.0050	9727415	0.0060	0.0050	0.00050	9727756
Acenaphthylene	ug/g	<0.0050	9727415	<0.0050	0.0050	0.00060	9727756
Anthracene	ug/g	<0.0050	9727415	0.016	0.0050	0.00040	9727756
Benzo(a)anthracene	ug/g	<0.0050	9727415	0.036	0.0050	0.00040	9727756
Benzo(a)pyrene	ug/g	<0.0050	9727415	0.032	0.0050	0.00040	9727756
Benzo(b/j)fluoranthene	ug/g	<0.0050	9727415	0.038	0.0050	0.00060	9727756
Benzo(g,h,i)perylene	ug/g	<0.0050	9727415	0.021	0.0050	0.00050	9727756
Benzo(k)fluoranthene	ug/g	<0.0050	9727415	0.012	0.0050	0.00030	9727756
Chrysene	ug/g	<0.0050	9727415	0.037	0.0050	0.00030	9727756
Dibenzo(a,h)anthracene	ug/g	<0.0050	9727415	0.0051	0.0050	0.00030	9727756
Fluoranthene	ug/g	<0.0050	9727415	0.080	0.0050	0.00060	9727756
Fluorene	ug/g	<0.0050	9727415	0.0078	0.0050	0.00050	9727756
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	9727415	0.018	0.0050	0.00030	9727756
1-Methylnaphthalene	ug/g	<0.0050	9727415	<0.0050	0.0050	0.00060	9727756
2-Methylnaphthalene	ug/g	<0.0050	9727415	<0.0050	0.0050	0.00070	9727756
Naphthalene	ug/g	<0.0050	9727415	<0.0050	0.0050	0.00040	9727756
Phenanthrene	ug/g	<0.0050	9727415	0.048	0.0050	0.00040	9727756
Pyrene	ug/g	<0.0050	9727415	0.070	0.0050	0.00030	9727756
<b>Surrogate Recovery (%)</b>							
D10-Anthracene	%	94	9727415	100			9727756
D14-Terphenyl (FS)	%	93	9727415	82			9727756
D8-Acenaphthylene	%	80	9727415	93			9727756
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable							



BUREAU VERITAS

Bureau Veritas Job #: C4X6776

Report Date: 2024/11/04

Soil Engineers Ltd

Site Location: 12561 CENTREVILLE CREEK ROAD

**O.REG 153 PHCS, BTEX/F1-F4 (SOIL)**

Bureau Veritas ID		AGZW59				AGZW59				AGZW60			
Sampling Date		2024/10/23 11:00				2024/10/23 11:00				2024/10/23 12:00			
COC Number		N/A				N/A				N/A			
	UNITS	BH1/1	RDL	MDL	QC Batch	BH1/1 Lab-Dup	RDL	MDL	QC Batch	BH2/1B	RDL	MDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>													
Benzene	ug/g	<0.020	0.020	0.020	9728231					<0.020	0.020	0.020	9728231
Toluene	ug/g	<0.020	0.020	0.020	9728231					0.48	0.020	0.020	9728231
Ethylbenzene	ug/g	<0.020	0.020	0.020	9728231					0.26	0.020	0.020	9728231
o-Xylene	ug/g	<0.020	0.020	0.020	9728231					0.99	0.020	0.020	9728231
p+m-Xylene	ug/g	<0.040	0.040	0.040	9728231					1.1	0.040	0.040	9728231
Total Xylenes	ug/g	<0.040	0.040	0.040	9728231					2.1	0.040	0.040	9728231
F1 (C6-C10)	ug/g	<10	10	5.0	9728231					13	10	5.0	9728231
F1 (C6-C10) - BTEX	ug/g	<10	10	5.0	9728231					10	10	5.0	9728231
<b>F2-F4 Hydrocarbons</b>													
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	7.0	5.0	9727407	<7.0	7.0	5.0	9727407	<7.0	7.0	5.0	9727407
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	5.0	9727407	<50	50	5.0	9727407	<50	50	5.0	9727407
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	10	9727407	<50	50	10	9727407	<50	50	10	9727407
Reached Baseline at C50	ug/g	Yes			9727407	Yes			9727407	Yes			9727407
<b>Surrogate Recovery (%)</b>													
1,4-Difluorobenzene	%	104			9728231					102			9728231
4-Bromofluorobenzene	%	93			9728231					97			9728231
D10-o-Xylene	%	121			9728231					109			9728231
D4-1,2-Dichloroethane	%	108			9728231					101			9728231
o-Terphenyl	%	90			9727407	91			9727407	90			9727407
RDL = Reportable Detection Limit													
QC Batch = Quality Control Batch													
Lab-Dup = Laboratory Initiated Duplicate													



BUREAU  
VERITAS

Bureau Veritas Job #: C4X6776

Report Date: 2024/11/04

Soil Engineers Ltd

Site Location: 12561 CENTREVILLE CREEK ROAD

### O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Bureau Veritas ID		AGZW61	AGZW62			
Sampling Date		2024/10/23 13:30	2024/10/23 14:00			
COC Number		N/A	N/A			
	UNITS	BH3/1	BH4/1	RDL	MDL	QC Batch
<b>Calculated Parameters</b>						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	0.050	0.010	9725964
<b>Volatile Organics</b>						
Acetone (2-Propanone)	ug/g	<0.49	<0.49	0.49	0.49	9728822
Benzene	ug/g	<0.0060	<0.0060	0.0060	0.0060	9728822
Bromodichloromethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
Bromoform	ug/g	<0.040	<0.040	0.040	0.040	9728822
Bromomethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
Carbon Tetrachloride	ug/g	<0.040	<0.040	0.040	0.040	9728822
Chlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9728822
Chloroform	ug/g	<0.040	<0.040	0.040	0.040	9728822
Dibromochloromethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9728822
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,1-Dichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,2-Dichloroethane	ug/g	<0.049	<0.049	0.049	0.049	9728822
1,1-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9728822
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9728822
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,2-Dichloropropane	ug/g	<0.040	<0.040	0.040	0.040	9728822
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	0.030	0.030	9728822
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	0.040	0.040	9728822
Ethylbenzene	ug/g	<0.010	<0.010	0.010	0.010	9728822
Ethylene Dibromide	ug/g	<0.040	<0.040	0.040	0.040	9728822
Hexane	ug/g	<0.040	<0.040	0.040	0.040	9728822
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	0.049	0.049	9728822
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	0.40	0.40	9728822
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	0.40	0.40	9728822
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	0.040	0.040	9728822
Styrene	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
Tetrachloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9728822
Toluene	ug/g	<0.020	<0.020	0.020	0.020	9728822
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



**O.REG 153 VOCs BY HS & F1-F4 (SOIL)**

Bureau Veritas ID		AGZW61	AGZW62			
Sampling Date		2024/10/23 13:30	2024/10/23 14:00			
COC Number		N/A	N/A			
	UNITS	BH3/1	BH4/1	RDL	MDL	QC Batch
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9728822
Trichloroethylene	ug/g	<0.010	<0.010	0.010	0.010	9728822
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	0.040	0.040	9728822
Vinyl Chloride	ug/g	<0.019	<0.019	0.019	0.019	9728822
p+m-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9728822
o-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9728822
Total Xylenes	ug/g	<0.020	<0.020	0.020	0.020	9728822
F1 (C6-C10)	ug/g	<10	<10	10	2.0	9728822
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	2.0	9728822
<b>F2-F4 Hydrocarbons</b>						
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	7.0	5.0	9727407
F3 (C16-C34 Hydrocarbons)	ug/g	<50	75	50	5.0	9727407
F4 (C34-C50 Hydrocarbons)	ug/g	<50	110	50	10	9727407
Reached Baseline at C50	ug/g	Yes	Yes			9727407
<b>Surrogate Recovery (%)</b>						
o-Terphenyl	%	83	92			9727407
4-Bromofluorobenzene	%	108	110			9728822
D10-o-Xylene	%	103	110			9728822
D4-1,2-Dichloroethane	%	101	97			9728822
D8-Toluene	%	96	98			9728822
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



Bureau Veritas Job #: C4X6776  
Report Date: 2024/11/04

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### TEST SUMMARY

**Bureau Veritas ID:** AGZW59  
**Sample ID:** BH1/1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9728231	N/A	2024/10/29	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9727407	2024/10/27	2024/10/28	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727084	N/A	2024/10/26	Muhammad Chhaidan

**Bureau Veritas ID:** AGZW59 Dup  
**Sample ID:** BH1/1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9727407	2024/10/27	2024/10/28	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9727084	N/A	2024/10/26	Muhammad Chhaidan

**Bureau Veritas ID:** AGZW60  
**Sample ID:** BH2/1B  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9728231	N/A	2024/10/29	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9727407	2024/10/27	2024/10/28	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727084	N/A	2024/10/26	Muhammad Chhaidan

**Bureau Veritas ID:** AGZW61  
**Sample ID:** BH3/1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9726471	N/A	2024/10/28	Automated Statchk
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
1,3-Dichloropropene Sum	CALC	9725964	N/A	2024/10/30	Automated Statchk
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9727407	2024/10/27	2024/10/28	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727084	N/A	2024/10/26	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9727415	2024/10/27	2024/10/28	Jett Wu
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9728822	N/A	2024/10/30	Cheng-Yu Sha



**RESULTS OF ANALYSES OF SOIL**

<b>Bureau Veritas ID</b>		AGZW59	AGZW59	AGZW60	AGZW61	AGZW62		AGZW63			
<b>Sampling Date</b>		2024/10/23 11:00	2024/10/23 11:00	2024/10/23 12:00	2024/10/23 13:30	2024/10/23 14:00		2024/10/23 15:00			
<b>COC Number</b>		N/A	N/A	N/A	N/A	N/A		N/A			
	<b>UNITS</b>	<b>BH1/1</b>	<b>BH1/1 Lab-Dup</b>	<b>BH2/1B</b>	<b>BH3/1</b>	<b>BH4/1</b>	<b>QC Batch</b>	<b>BH5/1A</b>	<b>RDL</b>	<b>MDL</b>	<b>QC Batch</b>

<b>Inorganics</b>											
Moisture	%	18	18	12	17	19	9727084	15	1.0	0.50	9727032
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate											

<b>Bureau Veritas ID</b>		AGZW64				AGZW65			AGZW66	AGZW66			
<b>Sampling Date</b>		2024/10/23 15:30				2024/10/23 14:00			2024/10/23 16:00	2024/10/23 16:00			
<b>COC Number</b>		N/A				N/A			N/A	N/A			
	<b>UNITS</b>	<b>BH6/1A</b>	<b>RDL</b>	<b>MDL</b>	<b>QC Batch</b>	<b>BH2/3</b>	<b>MDL</b>	<b>QC Batch</b>	<b>TP1</b>	<b>TP1 Lab-Dup</b>	<b>RDL</b>	<b>MDL</b>	<b>QC Batch</b>

<b>Inorganics</b>													
Moisture	%	12	1.0	0.50	9727032				15	14	1.0	0.50	9727032
Available (CaCl2) pH	pH					7.74		9734990					
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate													

<b>Bureau Veritas ID</b>		AGZW67	AGZW69	AGZW70			
<b>Sampling Date</b>		2024/10/23 16:00	2024/10/23 15:00	2024/10/23 16:00			
<b>COC Number</b>		N/A	N/A	N/A			
	<b>UNITS</b>	<b>TP2</b>	<b>TP3</b>	<b>TP4</b>	<b>RDL</b>	<b>MDL</b>	<b>QC Batch</b>
<b>Inorganics</b>							
Moisture	%	9.5	15	17	1.0	0.50	9727032
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							





Bureau Veritas Job #: C4X6776  
Report Date: 2024/11/04

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### TEST SUMMARY

**Bureau Veritas ID:** AGZW62  
**Sample ID:** BH4/1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9726471	N/A	2024/10/29	Automated Statchk
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
1,3-Dichloropropene Sum	CALC	9725964	N/A	2024/10/30	Automated Statchk
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9727407	2024/10/27	2024/10/28	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727084	N/A	2024/10/26	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9727756	2024/10/28	2024/10/28	Lingyun Feng
pH CaCl2 EXTRACT	AT	9731153	2024/10/29	2024/10/29	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9728822	N/A	2024/10/30	Cheng-Yu Sha

**Bureau Veritas ID:** AGZW62 Dup  
**Sample ID:** BH4/1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila

**Bureau Veritas ID:** AGZW63  
**Sample ID:** BH5/1A  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9735967	2024/10/31	2024/10/31	Li Peng
OC Pesticides Summed Parameters	CALC	9726551	N/A	2024/10/28	Automated Statchk

**Bureau Veritas ID:** AGZW64  
**Sample ID:** BH6/1A  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9735967	2024/10/31	2024/10/31	Li Peng
OC Pesticides Summed Parameters	CALC	9726551	N/A	2024/10/28	Automated Statchk
pH CaCl2 EXTRACT	AT	9734990	2024/10/30	2024/10/30	Kien Tran



Bureau Veritas Job #: C4X6776  
Report Date: 2024/11/04

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### TEST SUMMARY

**Bureau Veritas ID:** AGZW65  
**Sample ID:** BH2/3  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9734990	2024/10/30	2024/10/30	Kien Tran

**Bureau Veritas ID:** AGZW66  
**Sample ID:** TP1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9735967	2024/10/31	2024/10/31	Li Peng
OC Pesticides Summed Parameters	CALC	9726551	N/A	2024/10/28	Automated Statchk

**Bureau Veritas ID:** AGZW66 Dup  
**Sample ID:** TP1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan

**Bureau Veritas ID:** AGZW67  
**Sample ID:** TP2  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730035	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9735967	2024/10/31	2024/10/31	Li Peng
OC Pesticides Summed Parameters	CALC	9726551	N/A	2024/10/28	Automated Statchk

**Bureau Veritas ID:** AGZW68  
**Sample ID:** DUPS1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu



Bureau Veritas Job #: C4X6776  
Report Date: 2024/11/04

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### TEST SUMMARY

**Bureau Veritas ID:** AGZW68 Dup  
**Sample ID:** DUPS1  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu

**Bureau Veritas ID:** AGZW69  
**Sample ID:** TP3  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9735967	2024/10/31	2024/10/31	Li Peng
OC Pesticides Summed Parameters	CALC	9726551	N/A	2024/10/28	Automated Statchk

**Bureau Veritas ID:** AGZW70  
**Sample ID:** TP4  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9730356	2024/10/29	2024/10/29	Aswathy Neduveli Suresh
Free (WAD) Cyanide	TECH	9730043	2024/10/29	2024/10/29	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9730921	2024/10/29	2024/10/30	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu
Moisture	BAL	9727032	N/A	2024/10/26	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9735967	2024/10/31	2024/10/31	Li Peng
OC Pesticides Summed Parameters	CALC	9726551	N/A	2024/10/28	Automated Statchk

**Bureau Veritas ID:** AGZW71  
**Sample ID:** DUPS2  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	9730787	2024/10/29	2024/10/29	Daniel Teclu



### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.7°C
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Cooler custody seal was present and intact .

Sample AGZW64 [BH6/1A] : OC Pesticide Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

**Results relate only to the items tested.**



Bureau Veritas Job #: C4X6776  
Report Date: 2024/11/04

**QUALITY ASSURANCE REPORT**

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9727407	o-Terphenyl	2024/10/27	88	60 - 140	90	60 - 140	96	%		
9727415	D10-Anthracene	2024/10/27	96	50 - 130	95	50 - 130	95	%		
9727415	D14-Terphenyl (FS)	2024/10/27	96	50 - 130	91	50 - 130	92	%		
9727415	D8-Acenaphthylene	2024/10/27	86	50 - 130	78	50 - 130	78	%		
9727756	D10-Anthracene	2024/10/28	99	50 - 130	99	50 - 130	99	%		
9727756	D14-Terphenyl (FS)	2024/10/28	86	50 - 130	83	50 - 130	82	%		
9727756	D8-Acenaphthylene	2024/10/28	99	50 - 130	99	50 - 130	92	%		
9728231	1,4-Difluorobenzene	2024/10/29	101	60 - 140	102	60 - 140	102	%		
9728231	4-Bromofluorobenzene	2024/10/29	106	60 - 140	105	60 - 140	93	%		
9728231	D10-o-Xylene	2024/10/29	113	60 - 140	112	60 - 140	100	%		
9728231	D4-1,2-Dichloroethane	2024/10/29	98	60 - 140	99	60 - 140	104	%		
9728822	4-Bromofluorobenzene	2024/10/30	112	60 - 140	111	60 - 140	108	%		
9728822	D10-o-Xylene	2024/10/30	115	60 - 130	112	60 - 130	109	%		
9728822	D4-1,2-Dichloroethane	2024/10/30	94	60 - 140	98	60 - 140	98	%		
9728822	D8-Toluene	2024/10/30	101	60 - 140	101	60 - 140	98	%		
9735967	2,4,5,6-Tetrachloro-m-xylene	2024/10/31	92	50 - 130	89	50 - 130	79	%		
9735967	Decachlorobiphenyl	2024/10/31	98	50 - 130	92	50 - 130	88	%		
9727032	Moisture	2024/10/26							2.8	20
9727084	Moisture	2024/10/26							0	20
9727407	F2 (C10-C16 Hydrocarbons)	2024/10/28	89	60 - 140	90	80 - 120	<7.0	ug/g	NC	30
9727407	F3 (C16-C34 Hydrocarbons)	2024/10/28	89	60 - 140	91	80 - 120	<50	ug/g	NC	30
9727407	F4 (C34-C50 Hydrocarbons)	2024/10/28	88	60 - 140	90	80 - 120	<50	ug/g	NC	30
9727415	1-Methylnaphthalene	2024/10/27	84	50 - 130	84	50 - 130	<0.0050	ug/g	27	40
9727415	2-Methylnaphthalene	2024/10/27	84	50 - 130	85	50 - 130	<0.0050	ug/g	22	40
9727415	Acenaphthene	2024/10/27	88	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
9727415	Acenaphthylene	2024/10/27	85	50 - 130	80	50 - 130	<0.0050	ug/g	NC	40
9727415	Anthracene	2024/10/27	90	50 - 130	88	50 - 130	<0.0050	ug/g	31	40
9727415	Benzo(a)anthracene	2024/10/27	87	50 - 130	84	50 - 130	<0.0050	ug/g	102 (1)	40
9727415	Benzo(a)pyrene	2024/10/27	89	50 - 130	90	50 - 130	<0.0050	ug/g	81 (1)	40
9727415	Benzo(b,j)fluoranthene	2024/10/27	83	50 - 130	85	50 - 130	<0.0050	ug/g	75 (1)	40
9727415	Benzo(g,h,i)perylene	2024/10/27	89	50 - 130	88	50 - 130	<0.0050	ug/g	34	40
9727415	Benzo(k)fluoranthene	2024/10/27	84	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40



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**QUALITY ASSURANCE REPORT(CONT'D)**

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9727415	Chrysene	2024/10/27	89	50 - 130	92	50 - 130	<0.0050	ug/g	90 (1)	40
9727415	Dibenzo(a,h)anthracene	2024/10/27	97	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9727415	Fluoranthene	2024/10/27	83	50 - 130	87	50 - 130	<0.0050	ug/g	109 (1)	40
9727415	Fluorene	2024/10/27	88	50 - 130	84	50 - 130	<0.0050	ug/g	NC	40
9727415	Indeno(1,2,3-cd)pyrene	2024/10/27	93	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9727415	Naphthalene	2024/10/27	89	50 - 130	89	50 - 130	<0.0050	ug/g	9.6	40
9727415	Phenanthrene	2024/10/27	81	50 - 130	87	50 - 130	<0.0050	ug/g	116 (1)	40
9727415	Pyrene	2024/10/27	85	50 - 130	88	50 - 130	<0.0050	ug/g	105 (1)	40
9727756	1-Methylnaphthalene	2024/10/28	87	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
9727756	2-Methylnaphthalene	2024/10/28	91	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9727756	Acenaphthene	2024/10/28	95	50 - 130	96	50 - 130	<0.0050	ug/g	25	40
9727756	Acenaphthylene	2024/10/28	100	50 - 130	104	50 - 130	<0.0050	ug/g	22	40
9727756	Anthracene	2024/10/28	274 (1)	50 - 130	97	50 - 130	<0.0050	ug/g	38	40
9727756	Benzo(a)anthracene	2024/10/28	139 (1)	50 - 130	90	50 - 130	<0.0050	ug/g	7.0	40
9727756	Benzo(a)pyrene	2024/10/28	152 (1)	50 - 130	82	50 - 130	<0.0050	ug/g	4.6	40
9727756	Benzo(b,j)fluoranthene	2024/10/28	125	50 - 130	90	50 - 130	<0.0050	ug/g	5.7	40
9727756	Benzo(g,h,i)perylene	2024/10/28	120	50 - 130	94	50 - 130	<0.0050	ug/g	6.2	40
9727756	Benzo(k)fluoranthene	2024/10/28	115	50 - 130	79	50 - 130	<0.0050	ug/g	4.3	40
9727756	Chrysene	2024/10/28	147 (1)	50 - 130	85	50 - 130	<0.0050	ug/g	5.4	40
9727756	Dibenzo(a,h)anthracene	2024/10/28	105	50 - 130	77	50 - 130	<0.0050	ug/g	2.9	40
9727756	Fluoranthene	2024/10/28	NC	50 - 130	96	50 - 130	<0.0050	ug/g	7.3	40
9727756	Fluorene	2024/10/28	107	50 - 130	101	50 - 130	<0.0050	ug/g	14	40
9727756	Indeno(1,2,3-cd)pyrene	2024/10/28	125	50 - 130	93	50 - 130	<0.0050	ug/g	5.1	40
9727756	Naphthalene	2024/10/28	88	50 - 130	89	50 - 130	<0.0050	ug/g	9.1	40
9727756	Phenanthrene	2024/10/28	105	50 - 130	92	50 - 130	<0.0050	ug/g	1.6	40
9727756	Pyrene	2024/10/28	NC	50 - 130	98	50 - 130	<0.0050	ug/g	9.4	40
9728231	Benzene	2024/10/29	92	50 - 140	89	50 - 140	<0.020	ug/g	NC	50
9728231	Ethylbenzene	2024/10/29	111	50 - 140	104	50 - 140	<0.020	ug/g	NC	50
9728231	F1 (C6-C10) - BTEX	2024/10/29					<10	ug/g	NC	30
9728231	F1 (C6-C10)	2024/10/29	93	60 - 140	99	80 - 120	<10	ug/g	NC	30
9728231	o-Xylene	2024/10/29	111	50 - 140	107	50 - 140	<0.020	ug/g	NC	50
9728231	p+m-Xylene	2024/10/29	101	50 - 140	98	50 - 140	<0.040	ug/g	NC	50



QUALITY ASSURANCE REPORT(CONT'D)

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9728231	Toluene	2024/10/29	91	50 - 140	89	50 - 140	<0.020	ug/g	NC	50
9728231	Total Xylenes	2024/10/29					<0.040	ug/g	NC	50
9728822	1,1,1,2-Tetrachloroethane	2024/10/30	110	60 - 140	111	60 - 130	<0.040	ug/g	NC	50
9728822	1,1,1-Trichloroethane	2024/10/30	100	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9728822	1,1,2,2-Tetrachloroethane	2024/10/30	83	60 - 140	83	60 - 130	<0.040	ug/g	NC	50
9728822	1,1,2-Trichloroethane	2024/10/30	83	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
9728822	1,1-Dichloroethane	2024/10/30	83	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9728822	1,1-Dichloroethylene	2024/10/30	87	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
9728822	1,2-Dichlorobenzene	2024/10/30	97	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9728822	1,2-Dichloroethane	2024/10/30	96	60 - 140	100	60 - 130	<0.049	ug/g	NC	50
9728822	1,2-Dichloropropane	2024/10/30	85	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9728822	1,3-Dichlorobenzene	2024/10/30	93	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9728822	1,4-Dichlorobenzene	2024/10/30	94	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9728822	Acetone (2-Propanone)	2024/10/30	81	60 - 140	85	60 - 140	<0.49	ug/g	NC	50
9728822	Benzene	2024/10/30	92	60 - 140	97	60 - 130	<0.0060	ug/g	NC	50
9728822	Bromodichloromethane	2024/10/30	93	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9728822	Bromoform	2024/10/30	105	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
9728822	Bromomethane	2024/10/30	83	60 - 140	80	60 - 140	<0.040	ug/g	NC	50
9728822	Carbon Tetrachloride	2024/10/30	112	60 - 140	116	60 - 130	<0.040	ug/g	NC	50
9728822	Chlorobenzene	2024/10/30	89	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9728822	Chloroform	2024/10/30	95	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9728822	cis-1,2-Dichloroethylene	2024/10/30	100	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9728822	cis-1,3-Dichloropropene	2024/10/30	81	60 - 140	85	60 - 130	<0.030	ug/g	NC	50
9728822	Dibromochloromethane	2024/10/30	103	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9728822	Dichlorodifluoromethane (FREON 12)	2024/10/30	90	60 - 140	84	60 - 140	<0.040	ug/g	NC	50
9728822	Ethylbenzene	2024/10/30	92	60 - 140	95	60 - 130	<0.010	ug/g	NC	50
9728822	Ethylene Dibromide	2024/10/30	92	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9728822	F1 (C6-C10) - BTEX	2024/10/30					<10	ug/g	NC	30
9728822	F1 (C6-C10)	2024/10/30	92	60 - 140	93	80 - 120	<10	ug/g	NC	30
9728822	Hexane	2024/10/30	95	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9728822	Methyl Ethyl Ketone (2-Butanone)	2024/10/30	80	60 - 140	80	60 - 140	<0.40	ug/g	NC	50
9728822	Methyl Isobutyl Ketone	2024/10/30	80	60 - 140	84	60 - 130	<0.40	ug/g	NC	50



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QUALITY ASSURANCE REPORT(CONT'D)

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9728822	Methyl t-butyl ether (MTBE)	2024/10/30	93	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9728822	Methylene Chloride(Dichloromethane)	2024/10/30	88	60 - 140	94	60 - 130	<0.049	ug/g	NC	50
9728822	o-Xylene	2024/10/30	100	60 - 140	102	60 - 130	<0.020	ug/g	NC	50
9728822	p+m-Xylene	2024/10/30	91	60 - 140	95	60 - 130	<0.020	ug/g	NC	50
9728822	Styrene	2024/10/30	96	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9728822	Tetrachloroethylene	2024/10/30	101	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9728822	Toluene	2024/10/30	90	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
9728822	Total Xylenes	2024/10/30					<0.020	ug/g	NC	50
9728822	trans-1,2-Dichloroethylene	2024/10/30	98	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
9728822	trans-1,3-Dichloropropene	2024/10/30	83	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9728822	Trichloroethylene	2024/10/30	106	60 - 140	112	60 - 130	<0.010	ug/g	NC	50
9728822	Trichlorofluoromethane (FREON 11)	2024/10/30	105	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9728822	Vinyl Chloride	2024/10/30	92	60 - 140	86	60 - 130	<0.019	ug/g	NC	50
9730035	WAD Cyanide (Free)	2024/10/29	89	75 - 125	104	80 - 120	<0.01	ug/g	NC	35
9730043	WAD Cyanide (Free)	2024/10/29	92	75 - 125	95	80 - 120	<0.01	ug/g	NC	35
9730356	Hot Water Ext. Boron (B)	2024/10/29	101	75 - 125	106	75 - 125	<0.050	ug/g	7.9	40
9730787	Acid Extractable Antimony (Sb)	2024/10/29	101	75 - 125	117	80 - 120	<0.20	ug/g	NC	30
9730787	Acid Extractable Arsenic (As)	2024/10/29	96	75 - 125	100	80 - 120	<1.0	ug/g	2.9	30
9730787	Acid Extractable Barium (Ba)	2024/10/29	NC	75 - 125	98	80 - 120	<0.50	ug/g	0.32	30
9730787	Acid Extractable Beryllium (Be)	2024/10/29	101	75 - 125	101	80 - 120	<0.20	ug/g	1.4	30
9730787	Acid Extractable Boron (B)	2024/10/29	91	75 - 125	95	80 - 120	<5.0	ug/g	7.1	30
9730787	Acid Extractable Cadmium (Cd)	2024/10/29	97	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
9730787	Acid Extractable Chromium (Cr)	2024/10/29	NC	75 - 125	95	80 - 120	<1.0	ug/g	0.61	30
9730787	Acid Extractable Cobalt (Co)	2024/10/29	98	75 - 125	98	80 - 120	<0.10	ug/g	1.6	30
9730787	Acid Extractable Copper (Cu)	2024/10/29	92	75 - 125	99	80 - 120	<0.50	ug/g	0.39	30
9730787	Acid Extractable Lead (Pb)	2024/10/29	94	75 - 125	98	80 - 120	<1.0	ug/g	0.23	30
9730787	Acid Extractable Mercury (Hg)	2024/10/29	98	75 - 125	97	80 - 120	<0.050	ug/g	NC	30
9730787	Acid Extractable Molybdenum (Mo)	2024/10/29	95	75 - 125	95	80 - 120	<0.50	ug/g	NC	30
9730787	Acid Extractable Nickel (Ni)	2024/10/29	NC	75 - 125	97	80 - 120	<0.50	ug/g	3.3	30
9730787	Acid Extractable Selenium (Se)	2024/10/29	93	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
9730787	Acid Extractable Silver (Ag)	2024/10/29	98	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
9730787	Acid Extractable Thallium (Tl)	2024/10/29	96	75 - 125	100	80 - 120	<0.050	ug/g	4.3	30





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Bureau Veritas Job #: C4X6776  
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### QUALITY ASSURANCE REPORT (CONT'D)

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9730787	Acid Extractable Uranium (U)	2024/10/29	102	75 - 125	103	80 - 120	<0.050	ug/g	0.029	30
9730787	Acid Extractable Vanadium (V)	2024/10/29	NC	75 - 125	99	80 - 120	<5.0	ug/g	2.1	30
9730787	Acid Extractable Zinc (Zn)	2024/10/29	NC	75 - 125	101	80 - 120	<5.0	ug/g	0.82	30
9730921	Chromium (VI)	2024/10/30	0.78 (2)	70 - 130	92	80 - 120	<0.18	ug/g	NC	35
9731153	Available (CaCl2) pH	2024/10/29			100	97 - 103			1.7	N/A
9734990	Available (CaCl2) pH	2024/10/30			100	97 - 103			0.29	N/A
9735967	a-Chlordane	2024/10/31	103	50 - 130	104	50 - 130	<0.0020	ug/g	NC	40
9735967	Aldrin	2024/10/31	102	50 - 130	100	50 - 130	<0.0020	ug/g	NC	40
9735967	Dieldrin	2024/10/31	107	50 - 130	114	50 - 130	<0.0020	ug/g	NC	40
9735967	Endosulfan I (alpha)	2024/10/31	97	50 - 130	114	50 - 130	<0.0020	ug/g	NC	40
9735967	Endosulfan II (beta)	2024/10/31	113	50 - 130	119	50 - 130	<0.0020	ug/g	NC	40
9735967	Endrin	2024/10/31	103	50 - 130	107	50 - 130	<0.0020	ug/g	NC	40
9735967	g-Chlordane	2024/10/31	102	50 - 130	104	50 - 130	<0.0020	ug/g	NC	40
9735967	Heptachlor epoxide	2024/10/31	97	50 - 130	101	50 - 130	<0.0020	ug/g	NC	40
9735967	Heptachlor	2024/10/31	94	50 - 130	94	50 - 130	<0.0020	ug/g	NC	40
9735967	Hexachlorobenzene	2024/10/31	90	50 - 130	86	50 - 130	<0.0020	ug/g	NC	40
9735967	Hexachlorobutadiene	2024/10/31	102	50 - 130	89	50 - 130	<0.0020	ug/g	NC	40
9735967	Hexachloroethane	2024/10/31	66	50 - 130	73	50 - 130	<0.0020	ug/g	NC	40
9735967	Lindane	2024/10/31	96	50 - 130	99	50 - 130	<0.0020	ug/g	NC	40
9735967	Methoxychlor	2024/10/31	121	50 - 130	130	50 - 130	<0.0050	ug/g	NC	40
9735967	o,p-DDD	2024/10/31	111	50 - 130	116	50 - 130	<0.0020	ug/g	NC	40
9735967	o,p-DDE	2024/10/31	109	50 - 130	108	50 - 130	<0.0020	ug/g	NC	40
9735967	o,p-DDT	2024/10/31	124	50 - 130	126	50 - 130	<0.0020	ug/g	NC	40
9735967	p,p-DDD	2024/10/31	107	50 - 130	113	50 - 130	<0.0020	ug/g	NC	40
9735967	p,p-DDE	2024/10/31	103	50 - 130	129	50 - 130	<0.0020	ug/g	NC	40



**QUALITY ASSURANCE REPORT(CONT'D)**

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9735967	p,p-DDT	2024/10/31	126	50 - 130	128	50 - 130	<0.0020	ug/g	NC	40

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.



Bureau Veritas Job #: C4X6776  
Report Date: 2024/11/04

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Cristina Carriere*

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Cristina Carriere, Senior Scientific Specialist

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
 Your C.O.C. #: N/A

**Attention: Deepak Pudasainee**

Soil Engineers Ltd  
 90 West Beaver Creek Road  
 Unit 100  
 Richmond Hill, ON  
 CANADA L4B 1E7

**Report Date: 2024/11/06**  
 Report #: R8392947  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C4Y6607**

**Received: 2024/11/04, 17:14**

Sample Matrix: Soil  
 # Samples Received: 2

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	2	N/A	2024/11/06	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2024/11/05	2024/11/06	CAM SOP-00316	CCME CWS m
Moisture	2	N/A	2024/11/05	CAM SOP-00445	Carter 2nd ed 70.2 m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
- (2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.



Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
Your C.O.C. #: N/A

**Attention: Deepak Pudasainee**

Soil Engineers Ltd  
90 West Beaver Creek Road  
Unit 100  
Richmond Hill, ON  
CANADA L4B 1E7

**Report Date: 2024/11/06**  
Report #: R8392947  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C4Y6607**

**Received: 2024/11/04, 17:14**

Encryption Key



AUTHORIZED REPORT  
RAPPORT AUTORISÉ

Bureau Veritas  
06 Nov 2024 13:23:00

Please direct all questions regarding this Certificate of Analysis to:  
Antonella Brasil, Senior Project Manager  
Email: Antonella.Brasil@bureauveritas.com  
Phone# (905)817-5817

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Bureau Veritas Job #: C4Y6607  
 Report Date: 2024/11/06

Soil Engineers Ltd  
 Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
 Sampler Initials: VR

**O.REG 153 PHCS, BTEX/F1-F4 (SOIL)**

Bureau Veritas ID		AHVVH94	AHVVH95				AHVVH95			
Sampling Date		2024/10/23 12:00	2024/10/23 12:00				2024/10/23 12:00			
COC Number		N/A	N/A				N/A			
	UNITS	BH2/1C	BH2/2	RDL	MDL	QC Batch	BH2/2 Lab-Dup	RDL	MDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>										
Benzene	ug/g	<0.020	<0.020	0.020	0.020	9747591				
Toluene	ug/g	<0.020	<0.020	0.020	0.020	9747591				
Ethylbenzene	ug/g	<0.020	<0.020	0.020	0.020	9747591				
o-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9747591				
p+m-Xylene	ug/g	<0.040	<0.040	0.040	0.040	9747591				
Total Xylenes	ug/g	<0.040	<0.040	0.040	0.040	9747591				
F1 (C6-C10)	ug/g	<10	<10	10	5.0	9747591				
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	5.0	9747591				
<b>F2-F4 Hydrocarbons</b>										
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	7.0	5.0	9747962	<7.0	7.0	5.0	9747962
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	5.0	9747962	<50	50	5.0	9747962
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	10	9747962	<50	50	10	9747962
Reached Baseline at C50	ug/g	Yes	Yes			9747962	Yes			9747962
<b>Surrogate Recovery (%)</b>										
1,4-Difluorobenzene	%	107	104			9747591				
4-Bromofluorobenzene	%	100	99			9747591				
D10-o-Xylene	%	94	118			9747591				
D4-1,2-Dichloroethane	%	93	93			9747591				
o-Terphenyl	%	75	72			9747962	68			9747962
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



**BUREAU  
VERITAS**

Bureau Veritas Job #: C4Y6607  
Report Date: 2024/11/06

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
Sampler Initials: VR

**RESULTS OF ANALYSES OF SOIL**

<b>Bureau Veritas ID</b>		AHVVH94	AHVVH95			
<b>Sampling Date</b>		2024/10/23 12:00	2024/10/23 12:00			
<b>COC Number</b>		N/A	N/A			
	<b>UNITS</b>	<b>BH2/1C</b>	<b>BH2/2</b>	<b>RDL</b>	<b>MDL</b>	<b>QC Batch</b>
<b>Inorganics</b>						
Moisture	%	22	23	1.0	0.50	9745741
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



Bureau Veritas Job #: C4Y6607  
 Report Date: 2024/11/06

Soil Engineers Ltd  
 Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
 Sampler Initials: VR

**TEST SUMMARY**

**Bureau Veritas ID:** AHVH94  
**Sample ID:** BH2/1C  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/11/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9747591	N/A	2024/11/06	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9747962	2024/11/05	2024/11/06	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9745741	N/A	2024/11/05	Frances Gacayan

**Bureau Veritas ID:** AHVH95  
**Sample ID:** BH2/2  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/11/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9747591	N/A	2024/11/06	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9747962	2024/11/05	2024/11/06	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9745741	N/A	2024/11/05	Frances Gacayan

**Bureau Veritas ID:** AHVH95 Dup  
**Sample ID:** BH2/2  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/11/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9747962	2024/11/05	2024/11/06	Mohammed Abdul Nafay Shoeb





Bureau Veritas Job #: C4Y6607  
Report Date: 2024/11/06

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
Sampler Initials: VR

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C
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**Results relate only to the items tested.**



Bureau Veritas Job #: C4Y6607  
Report Date: 2024/11/06

**QUALITY ASSURANCE REPORT**

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON  
Sampler Initials: VR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9747591	1,4-Difluorobenzene	2024/11/05	101	60 - 140	100	60 - 140	104	%		
9747591	4-Bromofluorobenzene	2024/11/05	104	60 - 140	104	60 - 140	95	%		
9747591	D10-o-Xylene	2024/11/05	102	60 - 140	105	60 - 140	98	%		
9747591	D4-1,2-Dichloroethane	2024/11/05	98	60 - 140	92	60 - 140	96	%		
9747962	o-Terphenyl	2024/11/05	90	60 - 140	79	60 - 140	86	%		
9745741	Moisture	2024/11/05							5.3	20
9747591	Benzene	2024/11/05	86	50 - 140	81	50 - 140	<0.020	ug/g	NC	50
9747591	Ethylbenzene	2024/11/05	96	50 - 140	92	50 - 140	<0.020	ug/g	NC	50
9747591	F1 (C6-C10) - BTEX	2024/11/05					<10	ug/g	NC	30
9747591	F1 (C6-C10)	2024/11/05	96	60 - 140	97	80 - 120	<10	ug/g	NC	30
9747591	o-Xylene	2024/11/05	97	50 - 140	95	50 - 140	<0.020	ug/g	NC	50
9747591	p+m-Xylene	2024/11/05	90	50 - 140	88	50 - 140	<0.040	ug/g	NC	50
9747591	Toluene	2024/11/05	84	50 - 140	80	50 - 140	<0.020	ug/g	NC	50
9747591	Total Xylenes	2024/11/05					<0.040	ug/g	NC	50
9747962	F2 (C10-C16 Hydrocarbons)	2024/11/06	97	60 - 140	86	80 - 120	<7.0	ug/g	NC	30
9747962	F3 (C16-C34 Hydrocarbons)	2024/11/06	98	60 - 140	86	80 - 120	<50	ug/g	NC	30
9747962	F4 (C34-C50 Hydrocarbons)	2024/11/06	100	60 - 140	88	80 - 120	<50	ug/g	NC	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.  
 Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.  
 Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.  
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.  
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.  
 NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU  
VERITAS

Bureau Veritas Job #: C4Y6607

Report Date: 2024/11/06

Soil Engineers Ltd

Site Location: 12561 CENTREVILLE CREEK ROAD, CALEDON

Sampler Initials: VR

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Louise Harding, Scientific Specialist

---

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Site#: CALEDON  
 Site Location: 12561 CENTREVILLE CREEK ROAD  
 Your C.O.C. #: N/A

**Attention: Deepak Pudasainee**

Soil Engineers Ltd  
 90 West Beaver Creek Road  
 Unit 100  
 Richmond Hill, ON  
 CANADA L4B 1E7

**Report Date: 2024/11/12**  
 Report #: R8400981  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C4Z0006**

**Received: 2024/11/06, 16:53**

Sample Matrix: Soil  
 # Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
pH CaCl2 EXTRACT	1	2024/11/11	2024/11/11	CAM SOP-00413	EPA 9045 D m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Site#: CALEDON  
Site Location: 12561 CENTREVILLE CREEK ROAD  
Your C.O.C. #: N/A

**Attention: Deepak Pudasainee**

Soil Engineers Ltd  
90 West Beaver Creek Road  
Unit 100  
Richmond Hill, ON  
CANADA L4B 1E7

**Report Date: 2024/11/12**  
Report #: R8400981  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C4Z0006**  
**Received: 2024/11/06, 16:53**

Encryption Key



Bureau Veritas  
12 Nov 2024 10:19:39

Please direct all questions regarding this Certificate of Analysis to:  
Antonella Brasil, Senior Project Manager  
Email: Antonella.Brasil@bureauveritas.com  
Phone# (905)817-5817

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Bureau Veritas Job #: C4Z0006  
Report Date: 2024/11/12

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### RESULTS OF ANALYSES OF SOIL

<b>Bureau Veritas ID</b>		AICG91		
<b>Sampling Date</b>		2024/10/23 12:00		
<b>COC Number</b>		N/A		
	<b>UNITS</b>	<b>BH6/3</b>	<b>MDL</b>	<b>QC Batch</b>
<b>Inorganics</b>				
Available (CaCl <sub>2</sub> ) pH	pH	7.71		9758183
QC Batch = Quality Control Batch				



Bureau Veritas Job #: C4Z0006  
 Report Date: 2024/11/12

Soil Engineers Ltd  
 Site Location: 12561 CENTREVILLE CREEK ROAD

**TEST SUMMARY**

**Bureau Veritas ID:** AICG91  
**Sample ID:** BH6/3  
**Matrix:** Soil

**Collected:** 2024/10/23  
**Shipped:**  
**Received:** 2024/11/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9758183	2024/11/11	2024/11/11	Kien Tran



BUREAU  
VERITAS

Bureau Veritas Job #: C4Z0006  
Report Date: 2024/11/12

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.0°C
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Cooler custody seal was present and intact .

**Results relate only to the items tested.**





Bureau Veritas Job #: C4Z0006  
 Report Date: 2024/11/12

**QUALITY ASSURANCE REPORT**

Soil Engineers Ltd  
 Site Location: 12561 CENTREVILLE CREEK ROAD

QC Batch	Parameter	Date	SPIKED BLANK		RPD	
			% Recovery	QC Limits	Value (%)	QC Limits
9758183	Available (CaCl2) pH	2024/11/11	100	97 - 103	0.032	N/A

N/A = Not Applicable  
 Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.  
 Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.



Bureau Veritas Job #: C4Z0006  
Report Date: 2024/11/12

Soil Engineers Ltd  
Site Location: 12561 CENTREVILLE CREEK ROAD

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

*Cristina Carriere*

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Cristina Carriere, Senior Scientific Specialist

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